

NATIONAL PARKS



*Conservation
Magazine*

The Environmental Journal

March 1974



New Prospects for the Parks

THIS COMING SUMMER, for the first time in many years, travel to the National Parks could well decline. High prices for gasoline, if not continuing shortages, will curtail transcontinental driving.

Even the countryside around the cities will be harder to reach. People will be staying close to home, and the urban open spaces will be mightily attractive.

For all the folks, young and old, who have been longing for years to visit Yosemite, Yellowstone, Grand Canyon, but who have postponed the venture, the new circumstances, which may well be permanent, will be frustrating and deeply disappointing. And yet there are ways to solve this problem by shifting from the private car to public transportation. The change will help to protect the parks from traffic and save them for the people.

SUPPOSE we start with a citizen of Chicago, who has been doing pretty well recently, but has nonetheless not gotten rich. He could have taken his entire family to Rocky Mountain National Park inexpensively in the past by the family car.

Now it will be costly to drive, cheaper for a family of four to go by rail or bus. Amtrak has the trains, with special family rates. This country has been subsidizing auto travel for several generations by building big highways; now we can help people by subsidizing the railroads, if necessary, to get the fares down and build up patronage. This would be the democratic way to change from individual transcontinental automobile travel to comfortable public transit for everyone.

At the terminal in Denver, the family should be met by modern motor coaches to take them speedily at reasonable fares to their choice of privately owned vacation resorts in one or another of the communities outside the public lands near the park.

In the ideal pattern, there are seats for everyone, plenty of room for baggage, and a conductor in addition to the driver, to help with the children and the luggage. It will be a relatively short distance to the resort, which may be operated by a consortium of local recreational firms, or by one of the major

national recreation chains. The business will be under concessioner contract to the National Park Service to provide inexpensive accommodations outside the park and public coach transit into the park. The coach line from the city to the resort may also be run by the concessioner.

IN MANY CASES, the travelers will spend much of their time at the resort. For people who like various kinds of entertainment, there will be swimming pools, golf courses, horseback riding, cocktail lounges, and restaurants. But everyone will take trips into the national forests around the park and deep into the park itself. Minibuses like those now in use at Yosemite may be available, depending on how the National Park Service develops its plans, free or by day-long ticket, and visitors can get off at trail bases along the coach route or at the other stops, and continue the journey later as they choose.

There will be many people who like to rough it, and will travel with knapsacks and sleeping bags, prepared to hike to the campgrounds of the national forests, provided with stone fireplaces, or to travel out to the distant wilderness.

In some of the national parks, taking the system as a whole, there will be overnight accommodations for people who wish to stay inside the park for longer or shorter periods, subject to reservations to balance visitation with facilities.

At most of the parks, local minibus transportation will replace the private car. A model has already worked out well at Yosemite National Park with cordial public acceptance. The service should be frequent, on a regular schedule, with many stops, and benches with roofs in case of rain, where everyone can wait for the next shuttle.

ONE OF THE great merits of this way of getting into the parks will be that no one in the family will have to do any driving. Dad will not be worn out and irritable at the end of the day, nor will the children be fretful from sitting in the back seat with nothing to do. Everyone can relax and enjoy the journey.

Chances are that the total expense of a trip like this could be rather low. People will spread themselves out through the national forests, as well as the national parks, and crowding will be reduced in the parks.

The lands managed by the Bureau of Land Management can also be used, if BLM will go ahead with

Continued on page 35

**NATIONAL PARKS & CONSERVATION
ASSOCIATION**

OFFICERS

Anthony Wayne Smith, *President
and General Counsel*
Spencer M. Smith, *Chairman, Board of Trustees
and Executive Committee*
Lawrence C. Merriam, Jr., *Vice-Chairman,
Board of Trustees and Executive Committee*
Francis A. Young, *Secretary, Member of
Executive Committee*
Donald A. McCormack, *Treasurer, Member
of Executive Committee*
Mrs. Richard E. Byrd, *Member of Executive
Committee*
Mrs. Laughlin Phillips, *Member of Executive
Committee*
Gilbert F. Stucker, *Member of Executive
Committee*

EXECUTIVE STAFF

Thomas L. Cobb, *Administrative Assistant,
Forestry*
Eugenia Horstman Connally, *Editor*
Toby Cooper, *Administrative Assistant,
Parks*
John W. Grandy IV, *Administrative Assistant,
Program Coordination & Wildlife*
T. Destry Jarvis, *Administrative Assistant,
Legislative Information*
Crenell Mulkey, *Assistant to the
Business Manager*
Oliver J. Neslage, *Business Manager &
Director, Membership Services*

BOARD OF TRUSTEES

Durward L. Allen, *Lafayette, Indiana*
Mrs. Ariel B. Appleton, *Elgin, Arizona*
Richard C. Bradley, *Colorado Springs, Colorado*
Mrs. W. L. Lyons Brown, *Harrods Creek, Ky.*
Willard E. Brown, *Washington, D.C.*
Carl W. Buchheister, *Bethesda, Maryland*
Mrs. Richard E. Byrd, *Berryville, Virginia*
James C. Charlesworth, *Philadelphia, Penna.*
Eugenie Clark, *College Park, Maryland*
Barry Commoner, *St. Louis, Missouri*
Grant Conway, *Brookmont, Maryland*
Robert C. Cook, *Washington, D.C.*
Harold J. Coolidge, *Washington, D.C.*
John H. Cover, *Yellow Springs, Ohio*
Richard A. Falk, *Princeton, New Jersey*
Mrs. Mark Ganopole, *Anchorage, Alaska*
John L. George, *University Park, Pennsylvania*
Patrick D. Goldsworthy, *Seattle, Washington*
James R. Habeck, *Missoula, Montana*
Leonard Hall, *Caledonia, Missouri*
Michael Hudoba, *Washington, D.C.*
Harry G. M. Jopson, *Bridgewater, Virginia*
Darwin Lambert, *Luray, Virginia*
Martin Litton, *Menlo Park, California*
Miss Isabelle Lynn, *Goose Prairie, Washington*
Donald A. McCormack, *Washington, D.C.*
Lawrence C. Merriam, Jr., *St. Paul, Minnesota*
Richard G. Miller, *Carson City, Nevada*
James W. Moorman, *San Francisco, California*
M. Graham Netting, *Pittsburgh, Pennsylvania*
Harry Robert Page, *Arlington, Virginia*
Mrs. Laughlin Phillips, *Washington, D.C.*
Richard H. Pough, *Pelham, New York*
Carl H. Reidel, *Burlington, Vermont*
Andrew J. W. Scheffey, *Leverett, Massachusetts*
Spencer M. Smith, Jr., *Arlington, Virginia*
Gilbert F. Stucker, *New York, New York*
Richard A. Watson, *St. Louis, Missouri*
Charles F. Wurster, Jr., *Stony Brook, New York*
Francis A. Young, *Washington, D.C.*

National Parks & Conservation Magazine is published monthly. Contributed manuscripts and photographs are welcome. They should be addressed to the Editor at Association headquarters and should be accompanied by a stamped, self-addressed envelope. No responsibility can be assumed for unsolicited material. As an organization receiving tax-exempt contributions, gifts, and bequests, the Association is precluded by law from advocating or opposing legislation to any substantial extent. Articles are published for educational purposes and do not necessarily reflect the views of this Association. Title registered U.S. Patent Office, Copyright © 1974 by National Parks & Conservation Association. Printed in the United States. Second-class postage paid at Washington, D.C., and at other offices.

NATIONAL PARKS & CONSERVATION ASSOCIATION ■ 1701 EIGHTEENTH STREET, NW ■ WASHINGTON, D.C. 20009

weathered american chestnut trunk
jack jeffers photograph

NATIONAL PARKS & Conservation Magazine

**The Environmental Journal Vol. 48, No. 3, March 1974
NPCA • National Parks & Conservation Association • NPCA**

- 2 New Prospects for the Parks
- 4 Arizona's Lost Hundred
by Iris R. Webster
- 9 Grand Canyon National Monument: The Ideal Park
by O. F. Oldendorph
- 13 A Cruise on Bavaria's Königssee
by Russell D. Butcher
- 16 Salt Marshes: Ecosystems in Danger
by John Hay
- 22 The New Mexican Ridge-nosed Rattlesnake
by Herbert S. Harris, Jr., and Robert S. Simmons
- 25 Concessions: A Continuing Threat to Park Quality
Staff Report
- 27 NPCA at Work
- 32 News Notes
- 33 Conservation Docket

COVERS Grand Canyon winter vistas, *by Ed Cooper*
An overcast winter morning at Hopi Point on the South Rim of Grand Canyon National Park presents breathtaking panoramas of oriental subtlety. The back cover is the view west; the front cover is the vista to the northeast. Soon additional portions of the great gorge of the Colorado may be added to the national park; Marble Canyon National Monument upriver and Grand Canyon National Monument and part of Lake Mead National Recreation Area downriver are proposed for national park status to enlarge Grand Canyon National Park. (See articles beginning on pages 4 and 9. See also staff report on page 25.)

EDITORIAL STAFF

Eugenia Horstman Connally, *Editor*
Kathryn Rushing, *Assistant Editor* □ Pamela Ann Smith, *Assistant Editor*
Paula von Loewenfeldt, *Editorial Assistant*

National Parks & Conservation Association, established in 1919 by Stephen Mather, the first Director of the National Park Service, is an independent, private, nonprofit, public service organization, educational and scientific in character. Its responsibilities relate primarily to protecting the national parks and monuments of America, in which it endeavors to cooperate with the National Park Service while functioning as a constructive critic, and to protecting and restoring the whole environment. Life memberships are \$500. Annual membership dues, including subscription to National Parks & Conservation Magazine, are: \$100 sustaining, \$50 supporting, \$15 contributing, and \$10 associate. Student memberships are \$8. Single copies are \$1.50. Contributions and bequests are needed to carry on our work. Dues in excess of \$10 and contributions are deductible from federal taxable income, and gifts and bequests are deductible for federal gift and estate tax purposes. Mail membership dues, correspondence concerning subscriptions or changes of address, and postmaster notices or undeliverable copies to Association headquarters in Washington. When changing address, please allow six weeks' advance notice and send address label from latest issue along with new address. Advertising rates and circulation data are available on request from the Advertising Manager in Washington.

Arizona's LOST HUNDRED

article & photographs by IRIS R. WEBSTER

The spectacular western part of the Grand Canyon
now in Lake Mead Recreation Area
is proposed for inclusion in an expanded Grand Canyon National Park

*Diamond Peak seems to glow in the background in lower Peach Springs Canyon near the Colorado River in the
Lost Hundred section of the lower Grand Canyon.*



SLUGGISHLY, the incandescent mass moved toward the gorge. Reaching the brink, it poured over the 3,000-foot cliffs, a gigantic firefall. By the time it reached the river, it was flowing rapidly. A mighty roaring ensued; steam filled the gorge, billowing skyward, as molten lava mingled with the cold, muddy water of the Colorado River. For a great distance up and down river the water boiled. Upstream a fissure appeared in the river bed, followed by loud rumblings as clouds of acrid smoke filled the air. Red-hot lava spouted, to fall hissing into the water, adding to the bedlam below. This may well have been the scene when volcanoes erupted in the lower Grand Canyon millennia ago.

At Toroweap, on the western edge of the Grand Canyon National Monument, a flood of lava from Vulcan's Throne, a huge cinder cone on the lip of the canyon, built a lava dam in the canyon. The dam, which geologists believe to have been at least several hundred feet high, created lakes in the upper canyon. Eight cinder cones are in the inner gorge itself, and 180 cones dot Toroweap Valley above. The volcanic neck called Vulcan's Forge stands in the center of the river. In this battle of the elements, water has proven the stronger. Three lava dams were formed in the canyon in the last million years, but the water has breached them all.

This lower or western part of the Grand Canyon extends from the national monument 105 miles to the Grand Wash Cliffs, currently administered by the Bureau of Land Management as part of Lake Mead National Recreation Area. So few people are aware of its existence that it has sometimes been called the "Lost Hundred." Here is a narrow, deep inner gorge, with wide terraces or esplanades on either side, slashed with tributary canyons. Above, pastel upper rims reach out toward the river in long, narrow points. Spectacular in its own right, this lower canyon offers a contrast to the wide upper canyon with its eroded buttes.

As I was making an exploration of this area, the National Park Service announced plans to enlarge the Grand Canyon National Park boundaries to include much of the lower canyon, as well as most of the Grand Canyon and Marble Canyon national monuments. The bill to accomplish this expansion has passed the Senate and seems likely to be approved by the House and the President in the near future. Expansion of the park would alleviate the overcrowding that now occurs in the upper canyon campgrounds and would provide greater protection for the lower canyon area. Until recently this western canyon had not been lost so much as forgotten. As the century turned, this area was visited by sightseers who came by horse and wagon to view the canyon from Diamond Creek or to explore on a network of trails. With creation of the national park at the east end, it was bypassed and soon forgotten.

The Hualapai Indian Reservation abuts the canyon on the south for most of its length. A number of the ranch roads spider-webbing the reservation led me to interesting spots and views of the canyon.

In its meanderings, the Colorado River makes two deep southward bends. The first is within the national park,

and the second and deepest is at the confluence of Diamond Creek and the river near the Hualapai community of Peach Springs. The only road to reach the bottom of the Grand Canyon runs from Peach Springs down scenic Peach Springs Canyon to the confluence.

I made one of my first trips in this remote area down this canyon. I hoped to locate the foundations of the old Diamond Creek Hotel, built in 1884. This two-story rustic structure contained nine bedrooms, a lobby, and a dining room. Guests came by horse-drawn stage, the twenty-mile trip requiring ten hours. Visitors from all over the United States and Europe are said to have viewed the canyon from this location. After the building of the railroad to the national park, the hotel closed and the building was torn down by ranchers and Indians for the lumber, leaving only the foundations. Even the foundations disappeared when work was done on the road.

One of my most rewarding but strenuous trips on the reservation was up Prospect Valley, northeast of Peach Springs. Prospect Valley widens out as it approaches the canyon, extending to the edge of the inner gorge and becoming part of the esplanade. Two cinder cones, one partially destroyed, stand at the east end near short, deep Prospect Canyon. Vulcan's Throne rises across the gorge.

From the base of the mutilated cone I looked down into a netherworld; it seemed a setting from Dante's *Inferno*. Tortured, burned rocks covered the floor and walls of Prospect Canyon—neither plant life nor animal life were visible. Beyond, at the canyon's mouth, I glimpsed the Colorado River flowing below Vulcan's Throne. The original Prospect Canyon was buried by a lava flow, but Prospect Creek (actually only a dry wash except after rains) has excavated a new canyon parallel to the old one through the heart of a cinder cone.

Buck and Doe Road, west of Peach Springs, roughly parallels the canyon for fifty miles and finally ends at viewpoints above the river. From here I followed a side road to hills overlooking Hindu Canyon. The road eventually snaked down past Bridge Canyon. Supplies were carried over this road for workmen doing exploratory work at the proposed site of Bridge Canyon Dam. An old pack trail descends into Bridge Canyon, a wide tributary canyon extending four miles to the Colorado, then follows along above the river to the Lower Granite Gorge. This is the narrowest part of the lower canyon and the site selected for the controversial Army Corps of Engineers' Bridge Canyon Dam. Had it been constructed, this dam would have backed water into the Grand Canyon National Park. Conservation groups, concerned with this threat to a national park, publicized the issue to such an extent that public opposition caused the project to be abandoned. However, the issue remains alive though dormant because of provisions in the legislation for enlargement pending before Congress that would allow "dams and other reclamation projects" in the expanded national park unless public pressure to the contrary succeeds in deleting these provisions.

Farther north another road leads right from Buck and



From the top of Vulcan's Throne, a huge cone on the edge of the canyon, one can see a great distance westward into the Lost Hundred country. The Colorado River is barely visible in the upper center.

Due to the overlook at Meriwitica Canyon, where a steep trail switchbacks 1,500 feet to the canyon floor. Meriwitica is believed to be the ancestral home of the Hualapai Indians and related tribes. According to legend, they all lived in this canyon where springs allowed cultivation of crops. When the area could no longer support the growing population, they separated into smaller groups that searched for homes in other areas. One group settled in Cataract Canyon, calling themselves *Hava-su-pai* (people of the blue water), in reference to the vivid color of the water in Cataract Creek. The lower part of this canyon is now called Havasupai Canyon.

Only the tribe now living on the Hualapai Reservation remained. Their name means tall pine people, from the pines that grow on the surrounding plateaus. During troubles with the government in 1872–73, the tribe hid in this canyon, was eventually starved out, and in 1874 was forced to move to the Colorado Indian Reservation near present-day Parker, Arizona. Eventually they were allowed to return to their homeland.

The main road of Buck and Doe continues on north, ending at Bachit Point, where the huge steel skeleton of an abandoned upper station of a giant tramway teeters on the brink of the canyon, 3,500 feet above the river. Completed in 1957 for the U.S. Guano Corporation to remove guano from Bat Cave across the canyon, this difficult construction project required that equipment to build the tower and loading platforms across the river be flown by plane to the canyon floor, while the nearly two-mile-long tramway was strung by helicopter. This derelict is a jarring intrusion in this beautiful natural area.

Rampart Cave, home of the extinct Shasta ground sloth for 25,000 years, is located fifteen river miles west on the south canyon wall. I did not visit this cave because only scientific researchers are allowed entry. This area is under the care of the National Park Service and is considered one of the most important sloth sites in North America.

The north rim of the canyon is accessible only from the Arizona Strip, that forgotten lonely land between the canyon and Utah's southern border. The canyon is such



From the slopes of Vulcan's Throne, one sees, across the Grand Canyon, Prospect Valley fanning out to become part of the wide esplanade. Two small cinder cones guard the edge of deep, dark Prospect Canyon.

an effective barrier that to reach the national monument at Toroweap, residents of the rest of Arizona must go either to Las Vegas, Nevada, then northeast to St. George, Utah, and south seventy-five miles, or east by way of Fredonia, just below the Utah border, then sixty-five miles southwest.

I drove to Toroweap via St. George on my first trip north of the canyon. The 3,000-foot precipice at Toroweap made me apprehensive, but Vulcan's Throne loomed near and, loaded with camera gear, I slogged to the summit over shifting cinders to shoot pictures from this elevated viewpoint. Prospect Valley was across the gorge as well as the cinder cone where I had stood a month before.

Two problems beset a visitor to the Strip. One is gasoline, the other water. Both are in short supply, and it behooves the traveler to carry containers of both.

The pine-covered peak of Mount Trumbull rises north of Toroweap. A road climbs the southwest slope, and a primitive campground in a pine-scented setting is located beside Nixon Springs. This is the only water source for

miles around; I always fill all my jugs here. I carry at least ten gallons of water when traveling in isolated areas in Arizona.

West of Mount Trumbull the road drops over the Hurricane Cliffs to the Shivwits Plateau. The scattered buildings of the Mormon community known as Bundyville stand in the shadow of the cliffs. A Mormon family named Bundy settled here in the early days. The tribe increased until there was a community of people all named Bundy. Of late years many Bundys have moved to St. George, Utah, so their children may have the advantages of better education, and the old schoolhouse is no longer in use.

My most memorable experience here was the trip to Whitmore Rapids, downstream from Toroweap. At the abandoned schoolhouse I turned south on an unmarked road that climbed a mesa rough with rocks, then soon made a sharp curve, to wind steeply downward, coming out in a narrow valley. After passing ranch buildings it ascended a ridge, then went down between banks of shining ebony lava.

A cinder cone rose in the distance; beyond, the mistblue walls of the canyon appeared. Now the road got rougher as I bounced over lava as I began to descend toward the river. This was Whitmore Canyon, filled by a lava flow, as at Toroweap, which now makes a road to the river possible. To my left cliffs of pink Supai sandstone dripped a frosting of black lava. Soon we could see the river below us and the road's end.

The parking area is 500 feet above the water and a rough horse trail winds down over lava to the river's edge. As we drove up, people on horseback were coming up the trail. A pontoon boat drifted idly by the shore. This is now a debarkation point for many passengers coming down river. They ride up the trail on horseback and are flown out after being bussed to a landing strip a few miles away.

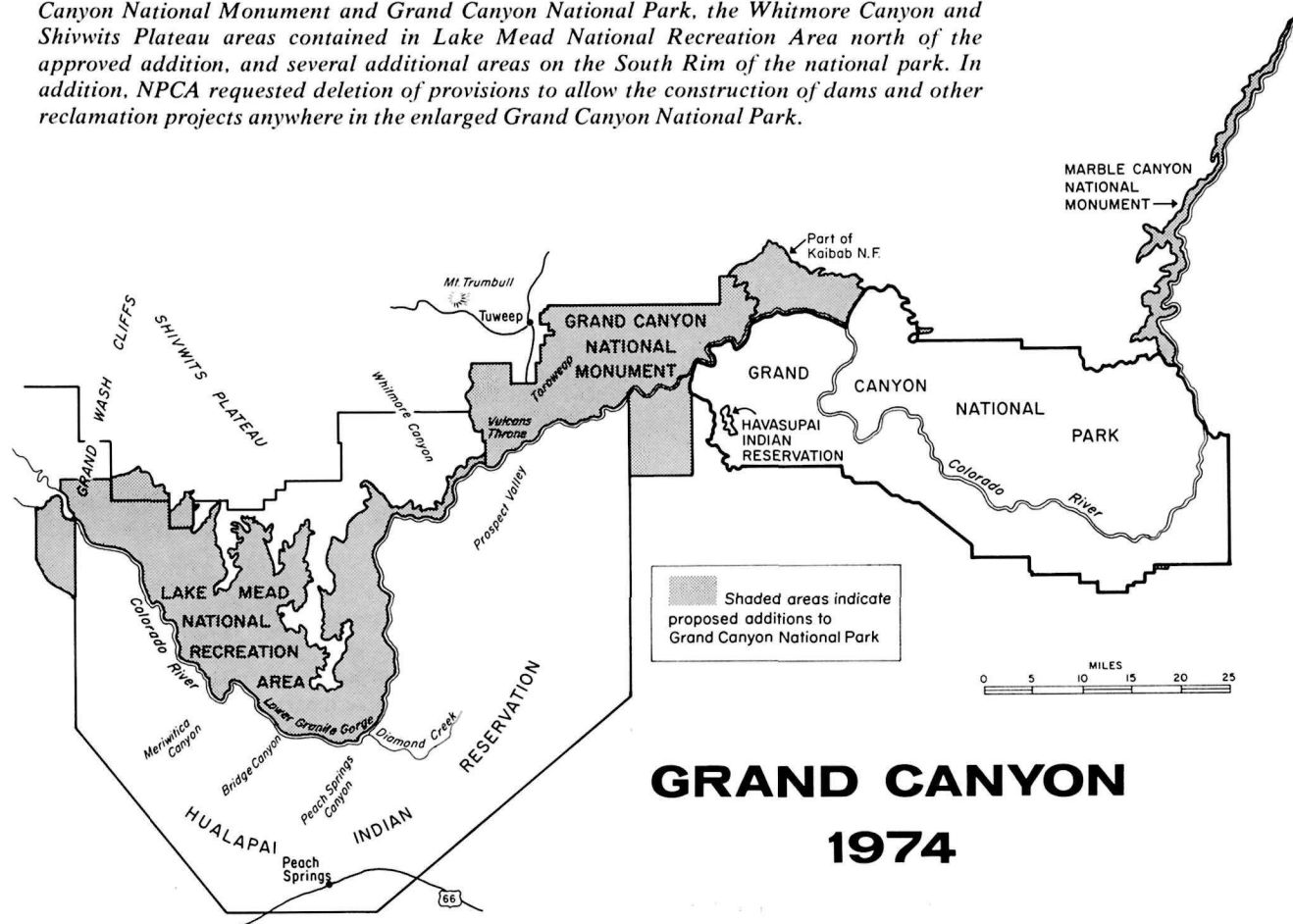
Farther west are several points where beautiful views of the tributary canyons can be seen, but none is close to the inner gorge. The confusing maze of unmarked ranch and lumbering roads requires perseverance as well as

ample gasoline. Topographic maps are a help, but the western canyon was not surveyed till 1967, and some maps remain unpublished. Roads nearest the canyon may be closed to vehicles after inclusion in the national park, but it would probably be only a fairly easy ten-mile hike to these points from the park boundary.

Conservationists hope that final approval of the bill to expand Grand Canyon National Park will ensure that the views from Toroweap, Whitmore Rapids, Prospect Valley, and Diamond Creek will be protected forever for the enjoyment of future generations. Will this masterpiece of intaglio carved into this high plateau country, this twisting chasm with its complex of tributary canyons, be preserved in its entirety as nature created it? ■

Iris R. Webster is employed at the University Library at Arizona State University, Tempe, Arizona, which proves convenient for the research as well as the travel necessary for her avocation of writing freelance articles about remote areas of the Southwest.

The proposed additions to Grand Canyon National Park indicated were approved by the U.S. Senate in September 1973. Matching legislation is now before the House Subcommittee on National Parks and Recreation. On invitation, NPCA presented testimony to the Subcommittee in November proposing additional extensions to the national park in the following areas: tributary side canyons of Marble Canyon National Monument, several areas north of Grand Canyon National Monument and Grand Canyon National Park, the Whitmore Canyon and Shivwits Plateau areas contained in Lake Mead National Recreation Area north of the approved addition, and several additional areas on the South Rim of the national park. In addition, NPCA requested deletion of provisions to allow the construction of dams and other reclamation projects anywhere in the enlarged Grand Canyon National Park.



Grand Canyon National Monument

THE IDEAL PARK



A remote national monument with unspoiled campgrounds
and outstanding natural features
may soon become part of Grand Canyon National Park

article & photographs by O. F. OLDENDORPH

Martha and I have visited almost all the southwestern national parks and monuments, and we've camped in them too. We have formed definite opinions on what makes a good park; and if someone asked us to write a specification for an outstanding park, we could do it. The result would probably be a description of Grand Canyon National Monument.

Our park would be remote, like Grand Canyon National Monument. When you drive south from St. George, in the southwest corner of Utah, the paved road ends after eight miles, and you know that you are heading into sparsely settled country. The road map shows Wolfhole twenty-six miles from St. George, but at the end of that distance you find only a deserted store building at the side of the road. Mount Trumbull shows on the map as a town; but when you pass a school, a few scattered ranch houses, and a tiny landing strip, you know that you have reached another landmark. A bit later, a single unpaved lane clings to the cliffside for an ascent of a thousand feet and affords an aerial view of the little settlement. A splash of orange-yellow on a distant mountain tells that glorious autumn has come to the aspens.

The boundary sign of the monument is twenty-five miles past Mount Trumbull. Soon the home/ranger station/maintenance yard for this remote unit of the National Park Service comes into view. Across the broad flat of Tuweep Valley, on the right, is the ramshackle shed, without roof or door, that houses the ranger's personal airplane. In six miles more the trail ends a scant hundred feet from the edge of the gorge of the Colorado River, eighty-

Downstream from the edge of the gorge at Grand Canyon National Monument, white water is visible. This stretch is one of the roughest on the Colorado River, yet thousands of river adventurers pass here annually, usually in parties conducted by commercial guides.

The dark areas visible on the right side of the gorge are lava flows that blocked the gorge millenia ago to a depth of several hundred feet. But the river, with its suspended cutting tools of sand and gravel, relentlessly rasped through the blockage, leaving cliff walls of black lava.

Below, the camp site at Grand Canyon National Monument is little more than a hundred feet from the brink of the canyon (out of sight to the right in the photograph).



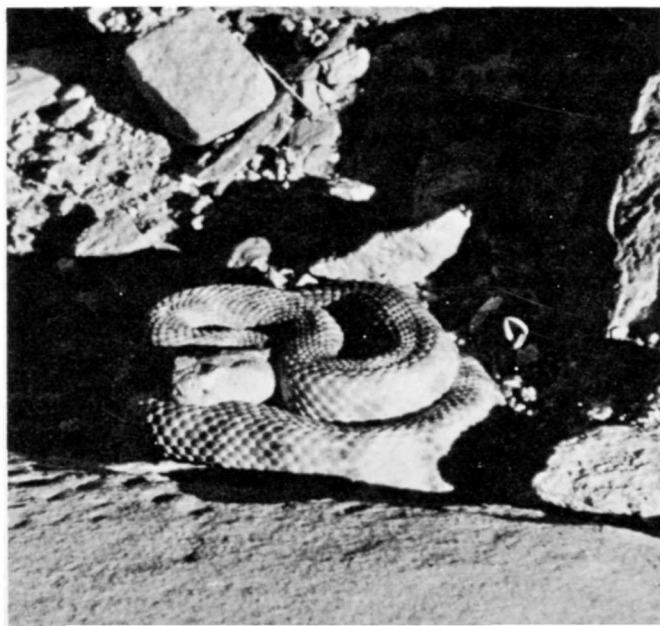


five miles from St. George. Grand Canyon National Monument is a lonesome spot; on a weekend you might pass half a dozen cars in eighty-five miles. During a week day, chances are that you will see none. It makes a marvelous national monument.

In our remote park we would have some outstanding feature to make the trip worthwhile. It could be a well-preserved Indian ruin, a glaciated valley, ancient trees, or a sheer-walled canyon. At Grand Canyon National Monument, of course, it is the canyon. Stand on the rocky ledge and look down at the river 3,000 feet below—so far to the river that its roar is only a murmur when you stand on the edge of the precipice. Look across the gorge and see the wide pinyon-dotted country and rocky buttes where you'd probably not see another human if you watched for a year but where, if you are sharp-eyed and well endowed with patience, you might pick out a couple of abandoned Indian hogans. Downstream, see the remnants of a black lava flow that once blocked the gorge to a depth of 600 feet but was cut through and carried away by the grinding of the sand-laden Colorado. Note also the white water and imagine that its murmur is a bit louder. If you are lucky, you may see a party of guided river travelers in large inflated rubber boats. Watch the boats pull to shore to allow the adventurers to walk past the rapids while the professional guides negotiate the rough water alone. They are so far away that through your binoculars the wild, plunging ride does not appear hazardous or even thrilling.

At Grand Canyon National Monument you hear no background of traffic noise, no delivery trucks carrying supplies to concessionaires, no radios blaring; and you hear no other raucous human sounds because hardly anyone else is ever around. Only a couple of thousand people visit the Grand Canyon National Monument in a year. But you can hear the breeze in the scattered junipers on a calm evening; on a stormy night, the wind howls of loneliness in a wide country.

Our neighbor the rattlesnake was asleep when we spotted him, but our photographic activity awakened him. About two and one-half feet long, he seemed little concerned by our presence and never rattled but finally crept under the rock. We approached no closer than about seven feet.



The campground in our ideal park must be primitive and unspoiled. A couple of tables with attached benches are convenient but not necessary; nor is the absence of water a deterrent after a camper has learned to carry his own and to husband it carefully while washing dishes. The fragrance of burning juniper doubles the enjoyment of a camp evening. But the desert land would soon be stripped of its sparse supply if everyone used this wood for campfires so I'd encourage visitors to bring their own firewood from mountain forests outside the park.

You can expect to meet some wildlife in a place like Grand Canyon. We discovered a rattlesnake sunning under the overhang of a rock, but he was most tolerant of our picture-taking. Finally, he slipped under the rock, and we saw him no more. One night, after we bedded down in the Land Rover, we were invaded by white-footed mice that sensed food nearby; they vigorously attacked our breakfast rolls through the cellophane wrapper. Eventually we expelled all but one of the little fellows and raised the Rover's tailgate to keep them out. The successful mouse had entered through the hood ventilator and ran over my bare feet several times. He worked noisily on an apple core in the trash bag and was our companion until dawn.

A park must be staffed with supervisory personnel. I like to find a self-contained, one-man Park Service like we did at Grand Canyon National Monument in the person of ranger John Riffey. This personable gentleman has been serving Grand Canyon National Monument for over thirty years. He stands ready to rescue a visitor from a canyon climb, to build a road, to plough the snow, to check the welfare of neighboring sheep herders, to enforce park rules, or to airdrop coffee and Bull Durham to his snow-bound mountain neighbors from *Pogo*, his airplane. He repairs and overhauls his park mechanical equipment, which includes four-wheel-drive trucks, a bulldozer, road scraper, and an electrical power plant. He keeps watch on the river boat trips that pass through his territory, counts the visitor register, files routine reports, and looks after land matters. You sense that he is a man who earns his living doing what he really enjoys.

My ideal park sounds like Grand Canyon National Monument. This monument, along with Marble Canyon National Monument and portions of the Lake Mead National Recreation Area, will become part of Grand Canyon National Park when a Senate-passed bill for this purpose is passed by the House and is signed by the President. I can't imagine a natural area more worthy of national park status. ■

O. F. Oldendorph is an aerospace design engineer residing in Coronado, California. He and his wife, Martha, have camped in most of the national parks and monuments of the West during the past twenty years. He has photographed much of the West. The isolation and absence of other campers during several trips to Grand Canyon National Monument made it one of the Oldendorphs' favorite spots in the national park system.



A Cruise on Bavaria's Königssee

The exquisite Königssee Nature Reserve
is worthy of becoming a great
international park

article and photographs by
RUSSELL D. BUTCHER

Set amid the majestic grandeur of West Germany's Berchtesgaden Alps is one of Europe's most exquisite creations of nature—a five-mile-long lake called Königssee. So outstanding is this fjordlike lake that many people have called it the “Yellowstone of the Bavarian Alps.” It is now protected within a 50,000-acre nature reserve, but some conservationists are advocating that the reserve be expanded to an international park encompassing adjoining mountains in Austria.

The main entrance to the reserve is about three miles south of the town of Berchtesgaden. From the road's end, a short walk through the resort village of Königssee brings the visitor to the boat dock at the north end of the lake.



*Obersee, serene, maple-bordered, encircled by the jagged cliffs of the Steinernes Meer.
From here wilderness trails lead to other tiny alpine lakes.*

On a crisp, clear October morning, my wife and I boarded one of the graceful electric-powered motor launches. Gliding silently through the crystal-clear water, we rounded a bend and suddenly faced the breathtaking panorama up the length of Königssee. Along the shadowed eastern shore rose steep forested slopes of Büchsenkopf, Gotzenberg, and other mountains. Walling in the west were the tremendous sheer escarpments of layered gray limestone and dolomite of the Watzmann. This great peak, rising 8,901 feet above sea level and about 7,000 feet above the lake, is the highest point in the reserve and the second highest mountain in the Bavarian Alps. The jagged summits of this landmark have long been referred to as the Watzmann, Watzmann wife, and five Watzmann children because of their resemblance to human figures.

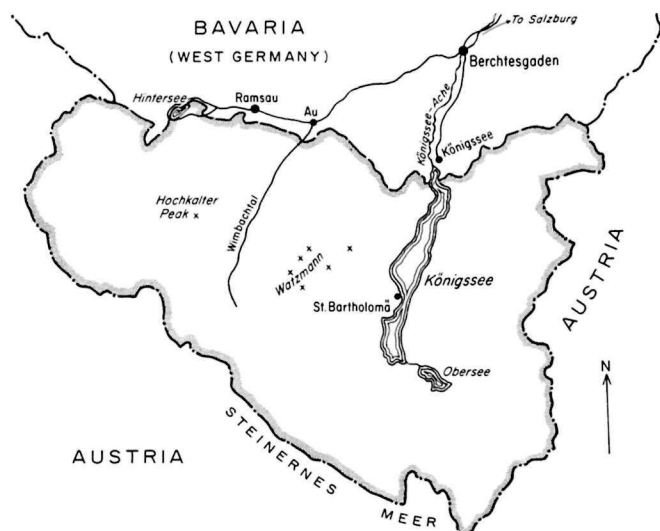
At the far end of the glacially carved valley we could see some of the high rocky summits of the Steinernes Meer along the Austrian border. The lake itself is said to be at least 600 feet deep, and salmon and trout thrive in its cold waters.

As the launch drifted along, one of the crew members

played a short melody on his brass bugle. In the stillness of the morning, the surrounding cliffs returned the notes in perfect echo.

About midway up the lake, we got off at the tiny, picturesque settlement of St. Bartholomä. This is a delightful spot. In a setting of bright green pastures, dark forests, and the backdrop of rocky Alps are a small farm, an inn, and an eleventh or twelfth century pilgrim chapel. The old farmhouse is of typical Bavarian architecture, with massive shingle roof, a deep-set second-story balcony beneath a gable-end hip roof, and cozy curtained windows in thick white-washed walls. At the lakeshore nearby, the ancient chapel is adorned with twin rounded steeples and a triple circular apse, which give the white walls and red shingle roof a sculptured appearance that blends with the landscape.

Following a trail into the forest, we explored a little way along Eisbach, a boulder-filled stream that led us close to the base of towering cliffs. This stream begins above timberline at a stretch of ice that never entirely melts during the summer. A cavelike opening through the ice has given rise to its name, "Ice-chapel."



KÖNIGSSEE NATURE RESERVE

After enjoying a picnic of German sausage and cheese, we took the next launch on to the south end of Königssee, passing Schrain-Bach waterfall where it plunges from the forest to the water's edge. As we left the boat, we noticed that the water at the shallow part of the lake was a beautiful green in the brilliant sunshine, in contrast to the dark blue of deeper water.

An easy half-hour walk by trail through meadows strewn with gigantic boulders, fallen from the cliffs above, brought us to Obersee. This smaller lake, bordered with maple trees, was already in afternoon shadow when we arrived. It was so quiet, you could faintly hear the musical sound of cowbells from a pasture along the far shore. The sheer cliffs of the Steinernes Meer encircled high above, partly highlighted by the sun, and the long ribbon of Röthbachfall descended for hundreds of feet to a band of dark forest below. Trails tempt hikers from here into the high country, where one trail leads to a series of little alpine wilderness lakes: Grünsee, Schwarzensee, and Funtensee.

Our return down the length of Königssee that evening was climaxed by the dramatic sight of the jagged crest of the mighty Watzmann etched in silhouette against the western sky. As the boat slipped along, the only sound we heard was caused by ripples along her bow.

One of the interesting highlights farther west, in the Königssee Nature Reserve (Naturschutzgebiet) is Blaueis Glacier, cradled high on the north side of Hochkalter, the second highest peak. Although not a large glacier, it is the northernmost one in the Alps. Visitors may approach Blaueis by trails south from the village of Ramsau or from nearby beautiful Hintersee.

Between the Watzmann and Hochkalter lies Wimbachtal, another long, mountain-framed valley, but lacking a lake. It is reached by road south from the village of Au and is at least worth the short excursion to Wimbach Gorge (Wimbachklamm) with its foaming cascades.

Flora of Königssee reserve are of great variety, with Norway spruce, mountain and dwarf pines, larch, mountain maple, beech, linden, and alder among the trees. Some of the many wildflowers are rhododendron (Alpenrose), heather, Edelweiss, Turk's-cap lily, alpine crocus, dwarf primrose, gentians, lady's-slipper and other orchids,

monkshood, goat's-beard, columbine, globeflower, alpine poppy, alpine anemone, silver thistle, bellflower, aster, and the delicate soldanella.

Ibex (Steinbock) were reintroduced from Italy's Gran Paradiso National Park in 1935, and today these stately mountain goats, with their great ribbed and gracefully curving horns, live in the rugged high mountains in the southeastern part of the reserve along the German-Austrian border. The smaller chamois, a species of antelope, also dwells in remote alpine areas, while red deer (related to the North American elk) and smaller roe deer are found at forested lower elevations. Hare, marmot, red fox, red squirrel, marten, and badger also can be found.

Among the birds that make their home here are Tengmalm's, pygmy, and eagle owls; woodpeckers; ring ouzel; nutcracker; jay; dipper; mallard; tits; pipit; redpoll; alpine accentor; wall creeper; snow finch; ptarmigan; alpine chough; and, rarely, the golden eagle.

Visitors can find a wide variety of accommodations, but reservations are advised during peak tourist months. Berchtesgaden offers hotels, pensions, and youth hostels; Königssee village has three hotels and a number of pensions. Within the reserve are a few mountain huts and inns along the trails. For instance, Blaueis-Hütte is near the glacier; Kärlinger-Hütte is close by Funtensee; Watzmann-Haus is to the north of the great peak; Saletaple, an attractive inn and restaurant is on the path between Königssee and Obersee; and an inn is located at St. Bartholomä. The historic, fascinating city of Salzburg, Austria, is only twenty miles north of Berchtesgaden, offering everything from elegant hotels to inexpensive and pleasant accommodations in private homes in surrounding suburbs and villages.

Excellent highways run from major cities in Germany and Austria, and a rail line extends to Berchtesgaden with bus service on to Königssee. The launches depart from the dock about every ten minutes during peak tourist season, with less frequent but regular schedules during the rest of the year, except when the lake is frozen over. Total boat trip time is about two hours, and there is a modest fee.

Especially helpful for locating trails and other points of interest in the reserve is the excellent Kompass Wanderkarte number 14, "Berchtesgadener Alpen." It is available at nearby bookstores and gift shops.

As we discovered to our delight, October is an ideal time for a visit to Königssee, for it is then that the air is especially clear and crisp and the mountainsides touched here and there with the russet and yellow of beeches and maples. There are few places in Europe that equal the grandeur of Königssee, and few places in the world so deserving of becoming a great national or international park. ■

This article is the third in a series by Russell Butcher on European national parks (see September and October 1973). Mr. Butcher and his wife traveled throughout the Alps region, visiting most of the national parks and nature preserves there. Long a contributor to this Magazine, Russell Butcher formerly held editorial and writing positions with the National Audubon Society, the Save-the-Redwoods League, and the Sierra Club.



Sheltered in estuaries, behind barrier beaches and islands, tidal marshes are a vital natural resource, both as habitat for many wild creatures and as the cradle of the sea. The photograph above is a sweeping panorama of part of lower and middle Cape Cod, which illustrates the intricate network of waterways and marshlands behind the protecting beaches. At right is a closer view of Nauset (or Eastham) Marsh in the center of the photograph above. This marsh is included in Cape Cod National Seashore. Photographs by Richard Kelsey, Chatham, Mass.

SALT MARSHES

ecosystems in danger

Preservation of our coastal wetlands
is imperative for man's benefit
as well as for their own sake

by JOHN HAY



OUR great spongy, receptive, coarsely woven marshes, open to the winds and the tides, are bonds between sea and land. The salt marshes are a unique environment, irreplaceable by man, that have formed in areas along our seacoast that are sheltered in tidal estuaries and behind barrier beaches and other natural features. Thus they are shielded from direct wave action and storm waves from the open ocean. Salt marshes are greatly dependent on tidal influence, and tidal ranges determine the extent and nature of their vegetation. The daily movement of water in and out and across the marsh, which carries tiny organisms, seeds, and fish, is a continuing source of revitalization and determines the fertility of the marshes. Their food production depends on this interchange. Tiny micro-organisms provide food for fish and shellfish, which in turn provide food for raccoons, muskrats, waterfowl, and other wildlife. Insects flourish and are eaten by songbirds, snakes, and frogs.

The whole marsh system, from offshore bar that protects it to inland banks where the shrubs and trees begin, is a great and intricate balancing of energies. Nor does its influence stop at its outer limits. Saltwater fish use marshes and estuarial systems for breeding and nursery areas. Organisms carried out on the tide nourish others in the coastal seas beyond. Shellfish bedded in sand or mud at or near the mouth of an estuary with a marsh behind them are dependent on the free tidal interchange throughout the entire salt marsh region. Coastal marshes are important as wintering areas for a great variety of waterfowl.

Life in great abundance is nurtured by a salt marsh in subtle and complicated ways. Simply listing species such as cordgrass, black grass, or saltwort, fiddler crabs, amphipods and isopods, muskrats, herons, rails, marsh snails, soft shell clams, and a hundred more can only hint at the dynamic interactions of plants and animals in the marsh, a world exposed to beating sun, harsh winds, severe winters, and shifting tides.

The kind of New England salt marsh I knew as a boy was an intrinsic part of local life. Farmers piled its salt hay in high, domed stacks on the salt meadows for their cattle. Shellfishermen knew well their dependence on it. Fishermen understood the shelter it provided for the fish that spawned in its creeks and estuaries.

Such a marsh also was—and still is—a place of secrets. Black ducks flew out of it from hiding places only they



Nauset (or Eastham) Marsh, Cape Cod, by John Grandy IV



Black ducks, by John Grandy IV

The dark area at the horizon in the photograph above is the open ocean; the pale streak below it is the protecting beach. Below the beach, Nauset (or Eastham) Marsh, like other coastal marshes, looks from a distance like a great barren expanse. But down among the waving grasses, along the meandering waterways, the marsh teems with life in a diverse, complex web of interdependencies, some of which are indicated in the diagram and photographs on these two pages. Black ducks in a salt marsh depend mainly on snails, soft-shell clams, and blue mussels for food; the latter creatures in turn depend on organic detritus and plankton. Canada geese and muskrats eat primarily marsh vegetation, whereas herons and terns depend largely on small fish. As plants and animals in a salt marsh die, they decay and provide nutrients for the growth of more estuarine organisms, which nourish myriad other estuarine and marine creatures in an endless cycle of rich and harmonious productivity.



Canada geese, by Luther C. Goldman, BSFW



Heron, by Luther C. Goldman, BSFW



Muskrat, by V. B. Scheffer, BSFW



Blue mussels, by John Grandy IV



Least terns, by Luther C. Goldman, BSFW

knew. Thin-bodied rails, or bitterns, were lost to the eye among the marsh's high grasses. Marsh hawks skimmed over it searching for field mice that tunneled through the grasses not flooded by tides. Salt marsh flowers, such as Gerardia and salt marsh aster added a delicate quality where they bloomed among the heavier vegetation that surrounded them. In late August and early September the seaside goldenrod, a host to many bees, nodded its great yellow flowerheads along the inner reaches of the marsh, and in the fall the low spikes of saltwort or salt marsh samphire turned flaming red.

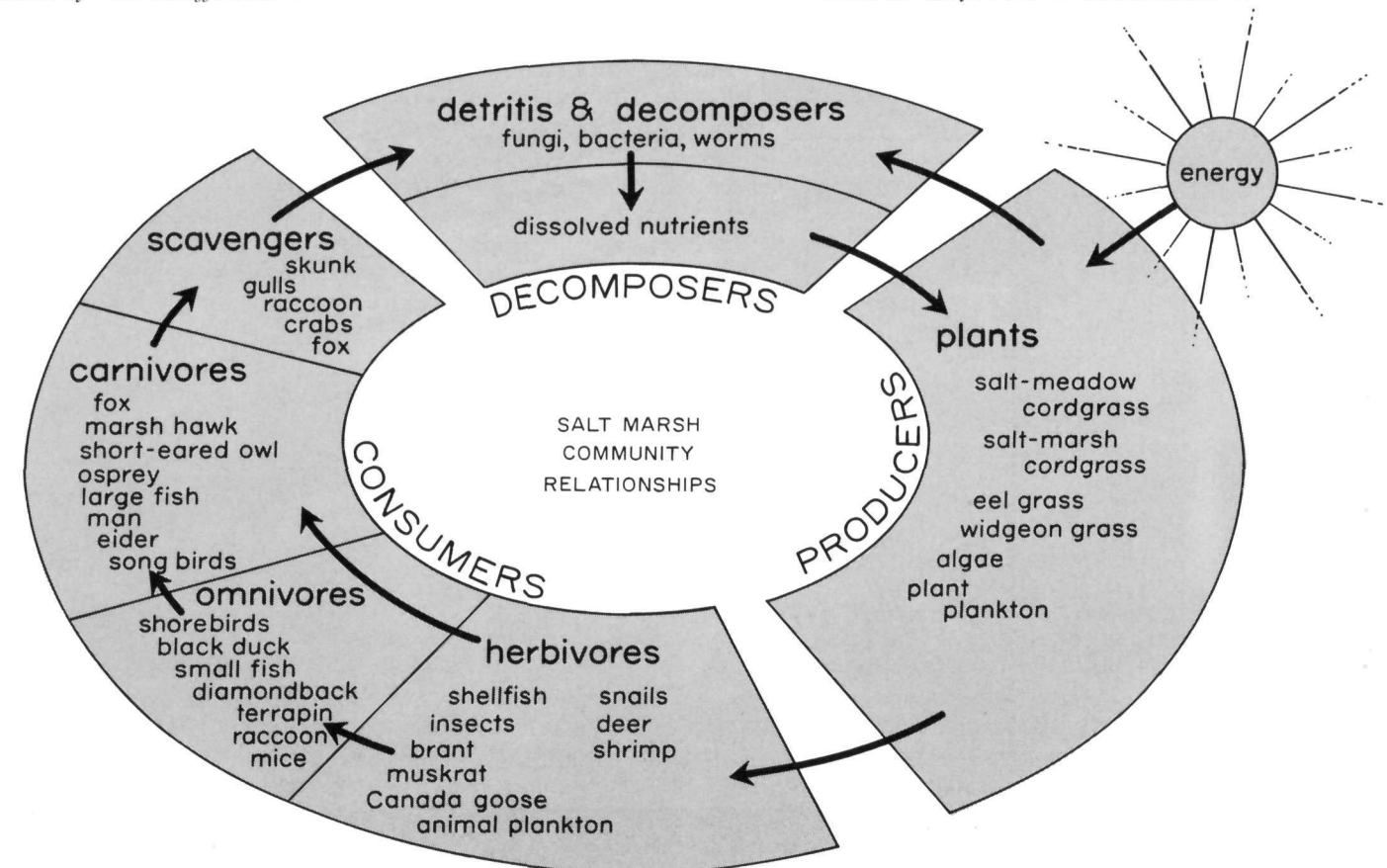
Thus, salt marshes are not simply smelly wastelands. I just happen to love that special combination of water, marsh peat, decaying grass, and clean salt air. Nothing is comparable.

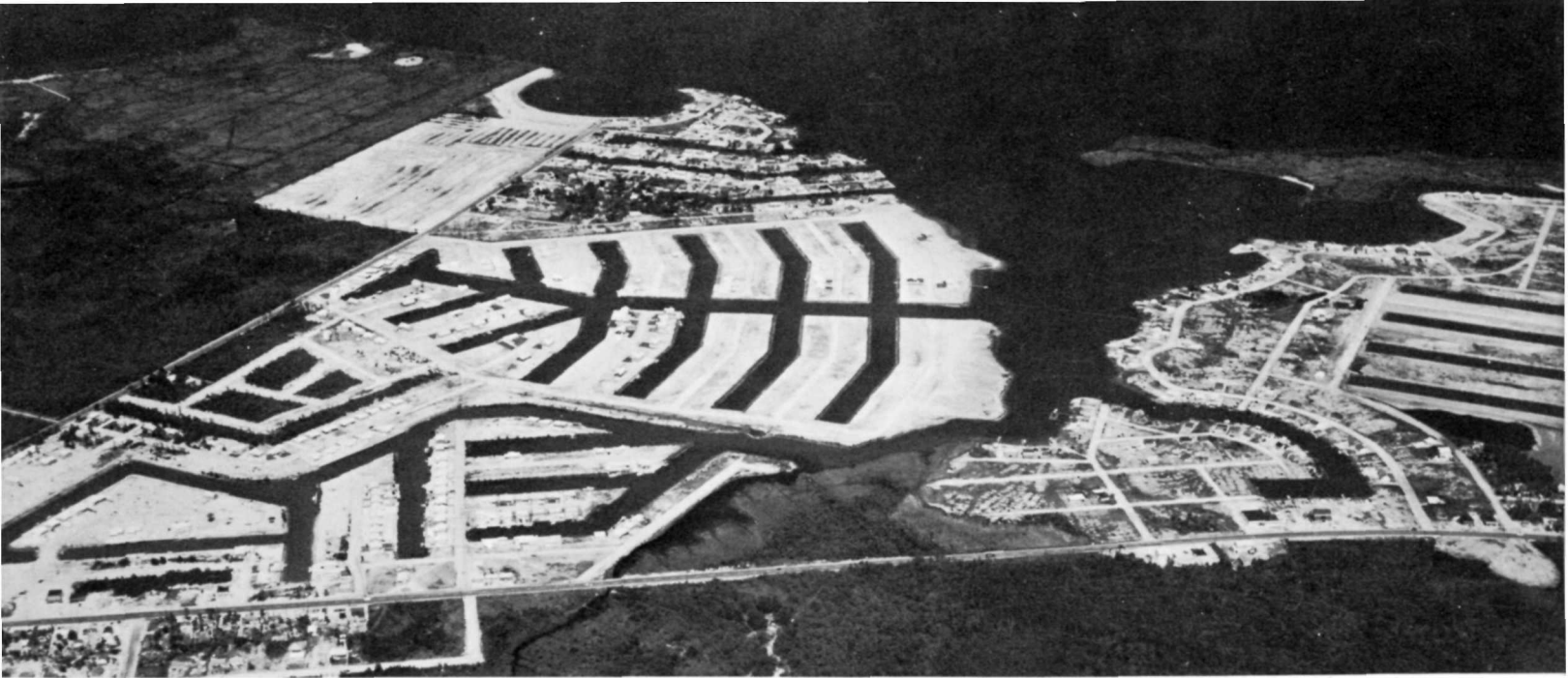
I suspect that many people who view from a distance those flat expanses of coarse grasses find them unvaried and monotonous, but within the marsh, down among the meandering waterways and waving grasses, you can distinguish the different kinds of grasses and other flowering plants. These plants are miracles of adaptation, in addition to being the home of myriad forms of life you will discover on a closer look. For example, the pioneer grass in the building of a marsh is *Spartina alterniflora*, which can tolerate longer submergence in salt or brackish water than other species of marsh grass. The seeds of *Spartina alterniflora* will not germinate if kept dry; but if they are kept moist by cold sea water, they will germinate in eight months. Their germination and growth is also affected by

how salty the water is. They seem to thrive in water of about 30 degrees of salinity. To a layman like me, the sensitivity of such a seed and the plant it grows into seems as remarkable as the complexity and diversity of the marsh itself, in all its rhythmically interrelated ways.

Because we imagine that we no longer depend on them for our food, we have a terrible habit of knocking out marshes and destroying their capacity, simply because they happen to be in the way of immediate economic gain. Most often marshes are filled to provide more land for dumps, automobile graveyards, airplane runways, shopping centers, parking lots, and housing developments. This practice is not necessarily a matter of basic need; in fact, it is counter-productive. Such practices increase the growing imbalance between man and his natural resources. We are temporarily allowing a few people to make money and in the long run depriving our society of its earth heritage and its sustenance. The often brutal, abstracted treatment of the land is in part the result of a lack of understanding of the importance of the delicate interactions and fertility of the salt marsh.

A salt marsh that is turned into a dump or a "lagoon development" is obviously lost so far as the production of food is concerned, but there are even more subtle ways of eliminating or reducing its productive capacity. We assume that to ditch a marsh for mosquito control is better than spraying it with untested pesticides, but even ditching may affect its ability to sustain living organisms by reducing the tidal flow and thus the transport of nourish-





Encroachment of this housing development into tidal marshland in New Jersey is typical of many similar destructive developments all along our coastlines. Such so-called "lagoon" developments are built by dredging out canals in the marshes and dumping the fill between them. Houses are built on the fill and heavily promoted for the "amenities" of waterfront living they offer. Thus, private real estate development corporations make huge profits at the expense of wildlife, the productivity of the marshlands and the sea, and other public values. Photographs by Charles D. Evans, BSFW.



ing materials. Some coastal wetlands are clearly not producing the supply of small fish that they once did. Without these fish, local colonies of terns cannot bring up their chicks and larger predatory fish are restricted as well. Much destruction has been blamed on pollution, and rightly so, but our physical interference with the intrinsic nature of these wetland environments may take a toll in ways we cannot always predict.

To do more than simply ditch—in other words to fill, drain, or dredge a marsh, to redirect its tidal creeks, to build channels in it for marinas—can have the effect of removing great areas of it that may never be restored. A marsh with a great depth of peat formed by accumulations of sediment plus the organic matter of decayed grass roots is the result of an intricate balance maintained between sinking land levels and the rising of sea water; and it depends on the ability of different species of plants to adapt to submergence at different levels. Such a marsh takes five hundred to a thousand years to form.

Fortunately, there has been a realization in recent years of the need to conserve our coastal wetlands before they disappear for good. During the 1950s the Massachusetts legislature passed protective laws concerning coastal areas that have provided models for many other states. Wetlands acts of varying kinds are now in effect in Atlantic coastal states from Maine to Florida. Conservation commissions have also been established by individual towns, often after state enabling acts. Such commissions often have little more than advisory powers, but their existence does at least establish responsibility in an area that had been almost completely neglected not many years ago.

Some states put their main emphasis on state ownership or control of wetlands. In other states the towns, usually through the initiative of state legislation, have managed to acquire their own marshes. Such purchase is often extremely difficult to manage, because a town may lack sufficient funds to buy the wetlands it needs, or it meets the kind of opposition that may make acquisition impossible. Acquisition by eminent domain is possible and has been done, but in many localities such a course is highly unpopular. Local ownership and initiative would seem to be a very effective way to save the irreplaceable wetlands, putting the responsibility where it belongs, but such efforts could be theoretically overturned in the future. However, local success in acquiring wetlands for conservation purposes at least establishes a strong precedent and enables a town to control its own resources if it has some popular backing.

Few laws completely prohibit the dredging or filling of marshes; usually they simply provide that marshland cannot be so altered without an application and a public hearing, after which a permit may or may not be granted. The system of permit procedures, like liberty itself, needs eternal vigilance. To require a hearing may delay the destruction of wetlands, but it does not necessarily stop it; and where stronger controls are in the wind, developers may hurry to fill or dredge before new laws take effect.

Also, state and local laws passed for the protection of

marshes are subject to court action. In other words, they depend on favorable positions by the court in upholding constitutionality. Outright ownership that says, in effect, "Stop here," would seem to be much more desirable than having to repeatedly regulate the wetlands. A salt marsh owned by a town, a state, or the federal government has its future reasonably well assured. However, laws establishing state or federal ownership ought to be written so as to forbid future leasing of tidal lands.

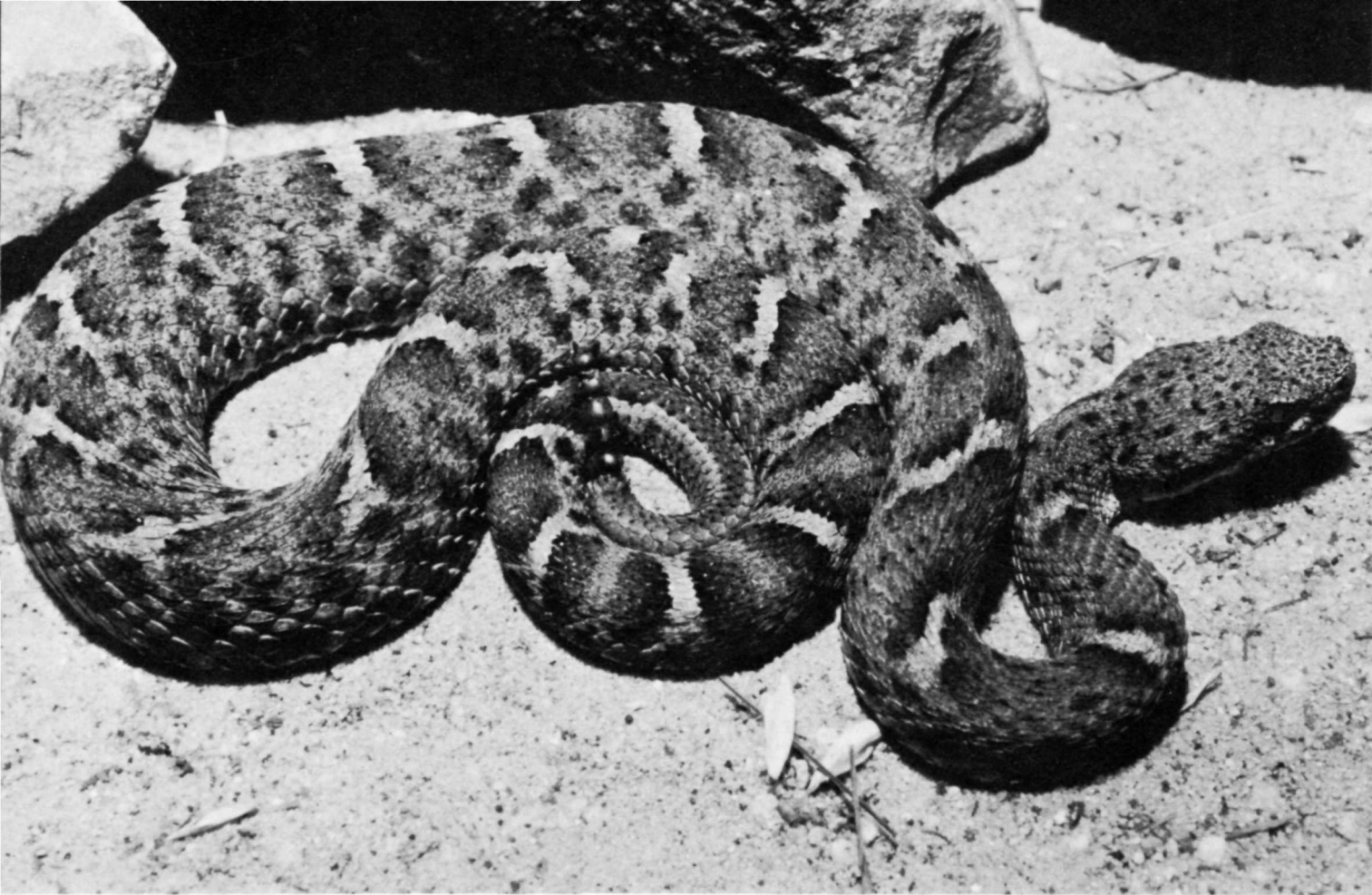
Salt marshes, or parts of them, can disappear gradually and insidiously. For instance, in an extensive marsh a bulldozer can fill in acres of marshland overnight; and although laws may require restoring a marsh to its original condition, it cannot be done after a dredge has finished with it. A cavalier attitude toward our environment causes some owners to fill and dredge whether or not they are violating wetlands legislation. Restraining orders may take a long time to be drawn up. Approval by town governments of such orders takes time. Enforcement is often lax. And in many instances the courts rule in favor of an individual owner or corporation who feels he has not been justly compensated because he was denied a permit to fill.

In spite of all legal obstacles or hazards and our society's inclination toward making money rather than saving the land, wholesale destruction of wetlands has been halted in many states. Conservation measures are in being and can be enforced, given the backing and the initiative. What is needed most perhaps, aside from strengthening the law on behalf of the environment, is a growing awareness that wetlands do not exist in the abstract, subject to human alteration and demand, but are unique and invaluable in themselves.

The argument for filling a marsh is usually put in economic terms. But if we are to think of the marsh "realistically," we must understand that the land is more productive as the cradle of the sea than as housing developments. Without the tidal marsh, saltwater fish would not be spawned to grow up and go to sea and bring money to fishermen who catch them. Commercial fishing fleets along the Atlantic Coast are not doing very well these days, but they still net some \$75,000,000 worth of fish that were nurtured in the coastal marshes and estuaries. Both the saltwater sports industry, which has an enormous cash income, and the shellfish industry are dependent on the nursery of coastal wetlands.

If our salt marshes are destroyed, we will lose a unique source of natural identity in an age that seems to have a nearly uncurbed tendency to build faceless environments. Unless we learn that and equate the lesson with our own identity and welfare, these and all other natural environments will remain in grave danger—and so will we. ■

John Hay is president of The Cape Cod Museum of Natural History in Brewster, Massachusetts. He is well known as the author of several books on natural history, including "In Defense of Nature," published by Atlantic/Little Brown and Company.



THE NEW MEXICAN RIDGE-NOSED RATTLESNAKE

The federal government should declare
this small, inoffensive, and beautiful snake as endangered,
thereby helping to ensure its preservation



article by HERBERT S. HARRIS, JR.
photographs by ROBERT S. SIMMONS

The small, inoffensive New Mexican ridge-nosed rattlesnake, no threat to man in its limited and restricted habitat, is seriously threatened with extinction if protective measures are not taken immediately. The New Mexican populations of the ridge-nosed rattlesnake are under serious threat from overzealous collectors and the potential use of its habitat for recreational purposes.

The ridge-nosed rattlesnake is truly a unique and beautiful animal. It derives its name from the turned-up scales on the front of the head that form a ridge along the back edge of the snout.

Like other rattlesnakes, the ridge-nosed rattlesnake is poisonous, but the rough and almost inaccessible areas in which it lives are not used for general recreation, housing, and so forth, so man rarely encounters it. It is a retiring

species that usually lies undetected in leaf litter in its pine-oak woodland habitat. Only careful search will discover it. It is small, generally less than two feet in length, and rarely strikes out in defense as do many other rattlesnakes. Its small size and relatively weak venom make it no real threat to man; there has never been a fatality recorded from its bite. Clearly, the protection of such an inoffensive species, even though it is venomous, will constitute no threat to anyone.

The ridge-nosed rattlesnake evolved from tropical ancestors along with the plant communities known as the Madro-Tertiary Geoflora and reached its distributional peak by the Mid-Miocene. As the American deserts were formed during the Pliocene and Pleistocene, this little rattlesnake became entirely restricted to pine-oak woodland communities above 5,000 feet in elevation. This restriction began about five million years ago. Populations may have been isolated and reconnected many times during the Pleistocene. This mountain-top isolation eventually resulted in the evolution of the five subspecies of this montane rattlesnake that exist today.

The Arizona ridge-nosed rattlesnake, *Crotalus willardi willardi*, is found only in the Santa Rita and Huachuca mountains of southeastern Arizona and adjacent ranges in Sonora, Mexico. The west Chihuahua ridge-nosed rattlesnake, *Crotalus willardi silus*, has the largest distribution, occurring in the Sierra Madre Occidental of western Chihuahua and eastern Sonora along the Continental Divide in Mexico. The southern ridge-nosed rattlesnake, *Crotalus willardi meridionalis*, is the most primitive of the group and is found in the Sierra Madre of southern Durango and northwestern Zacatecas in Mexico. In 1958, another subspecies was discovered in the Sierra del Nido, which lies east of the Sierra Madre in Chihuahua, Mexico. This population was described in 1962 and was named the del Nido ridge-nosed rattlesnake, *Crotalus willardi amabilis*. The fifth known subspecies was first collected in 1957. This subspecies is currently being described, which involves publishing the distinctive characteristics of the new population and proposing a name for the race. Its

manuscript name is the New Mexican ridge-nosed rattlesnake, *Crotalus willardi obscurus*. The word *obscurus* is taken from the Latin and means obscure, shady—a perfect name for such a nondescript member of a species. As its common name implies, it is found in the state of New Mexico.

The relatively large number of subspecies of *Crotalus willardi* recognized today indicates a snake with a long history of isolation between populations. The gene flow between some of these populations has been interrupted at different times during past geologic history, which is reflected in the subspeciation existing today. These isolated populations, with adverse habitat between them, are similar to island species isolated from each other—such as those famous creatures in the Galapagos Islands whose variations provided Charles Darwin with so much food for thought. Knowledge of the evolutionary history and differentiation of these populations of ridge-nosed rattlesnakes may help to shed some light on the climatic and geologic processes in the evolution of the deserts of western North America. This information, along with geologic and paleobotanical data may yield additional insight on past geologic history of our continent.

The ridge-nosed rattlesnakes are endangered wholly by man and his activities. The Mexican habitat is relatively safe for the moment, except for lumbering and cattle grazing, which have occurred mostly in northern Mexico. Many ridge-nosed rattlesnake habitats in northern Mexico have been cleared of pine trees. This activity may not be too serious; and if present data are correct, it could even be beneficial in some cases. In some areas of Mexico where forests have been cleared, lizard populations seem to have increased, thus providing a greater food supply for snakes such as the ridge-nosed rattlesnake. Of course, with the shade gone, the snakes would have to change their habits to survive, probably sunning earlier in the morning and retreating under cover sooner.

The Mexican populations of the ridge-nosed rattlesnakes are relatively safe from collectors, too, inasmuch as the Mexican government requires permits to collect any

Crotalus willardi silus



Crotalus willardi willardi



animal in its country and permits are becoming increasingly harder to get.

The Arizona ridge-nosed rattlesnake is currently listed in the "status undetermined" category by the United States Department of the Interior on their official list of *Threatened Wildlife of the United States* (1973 edition). In 1969 the state of Arizona took early recognition of the plight of this rattlesnake and passed an endangered species law protecting it and two other small montane rattlesnakes, the western twin-spotted rattlesnakes, *Crotalus pricei*, and the banded rock rattlesnake, *Crotalus lepidus*.

In 1972 the state of New Mexico tried to pass legislation to protect its population of this snake and other non-game species of wildlife but was unsuccessful. A similar bill in 1973 also failed. The New Mexican ridge-nosed rattlesnake is presently known from only one canyon in the Animas Mountains, making it the smallest known population and most valuable of the ridge-nosed rattlesnake subspecies—but the only unprotected subspecies.

Fortunately for the future of this population, however, it is in sympathetic hands. Mr. Peter G. Wray of the Pruett-Wray Cattle Company, the owner of the Animas Mountains, has offered his full cooperation in every effort to preserve this unique habitat and its inhabitants. Public access to the canyons and ridges of the Animas Mountains for any purpose that could be detrimental to the rattlesnake is prohibited for the time being. The U.S. Department of the Interior is also gravely concerned about the fate of this unique population and is currently evaluating the need to list this subspecies on its official list of endangered native fish and wildlife.

The New Mexican population faces still another danger through man's development. Plans are under way, the land is purchased, and the first buildings are going up for the construction of a copper ore reduction plant in the Playas Valley, along the east slopes of the Animas Mountains in New Mexico. Along with this plant is a proposed "company town" for a thousand families. The impact on the New Mexican ridge-nosed rattlesnake will be multi-fold. Stack emissions of sulfur dioxide (SO₂) if not properly cleaned up could pose a problem; and at the moment, technology is not yet available to clean up SO₂ emissions from a plant of the sort proposed. Of greater concern is the question of human impact on these mountains. Development may not always be restricted to the valley. In the future unless federal protection is afforded, it is conceivable that hunting, off-road vehicles, and possibly recreational activities will pose serious problems for the Animas Mountains and its inhabitants.

Of even greater concern at this moment is the collecting of specimens of ridge-nosed rattlesnakes for the pet and zoo trade. To most pet and zoo-oriented people, five subspecies mean that five examples must be represented in collections. Due to the snake's natural beauty and the inaccessibility of its habitat, the price is high for such a trophy. This alone is enough to attract unscrupulous collectors and dealers. With permits being required in Arizona and Mexico, New Mexico suffers the brunt of collecting although many specimens are smuggled out of Sonora, Mexico.

Collectors can wreak havoc on populations of species with highly specific habitat requirements in marginal

areas. The local pockets of distribution may seem to be densely populated, but they cannot long withstand intense collecting. Furthermore, with such localized populations, every individual is important for maintaining the genetic diversity of the species. The removal of any specimens can constitute a serious drain on these populations. The damage done to the habitat by rock turning and log rolling, a standard technique used in collecting snakes, and the use of crowbars in destroying rock outcroppings has serious effects on the habitat. Such impact must be seen to be appreciated. Another destructive measure currently being used, which has recently come to our attention is the use of gasoline. A selected habitat is saturated with this volatile and deadly liquid; when the snakes try to escape, they are captured. Of course, many that die before they can be captured are left, for they would bring no money on the market.

While doing research on this species, Herbert Harris, Jr., has encountered as many as fifteen collectors from as many as six states, collecting specimens of the ridge-nosed rattlesnake in one small area. Few habitats or species can long withstand such irresponsible overexploitation.

Of most pressing concern is protection for the New Mexican population of the ridge-nosed rattlesnake, for this snake is currently not protected at all, but is very much in demand for both legitimate and illegitimate collections because of its new classification as a distinct subspecies. A recently described animal must be added to a "complete" collection in order for the collection to remain complete. From the zoogeographic standpoint it is one of the most valuable and important populations of the species known.

All the ridge-nosed rattlesnakes are important for their scientific value, and they are all potentially threatened to some degree. But the New Mexican subspecies is in the most danger and needs immediate protection. Beyond its scientific value is the plain fact that this beautiful, inoffensive little snake is part of our natural heritage and deserves to live. ■

Herbert Harris is Curator of Herpetology at the Natural History Society of Maryland, Baltimore, Maryland, and the Executive Editor of the Bulletin of the Maryland Herpetological Society. Robert Simmons is a noted wildlife photographer. Both men are currently engaged in taxonomic and distribution studies of rattlesnakes and are also working to protect endangered species.

HELP THE RIDGE-NOSED RATTLESNAKE

If you are concerned about protecting threatened populations of the New Mexican ridge-nosed rattlesnake, you can help. You can write the Office of Endangered Species, urging them to list the New Mexican ridge-nosed rattlesnake as an endangered species:

Mr. Keith M. Schreiner, Chief
Office of Endangered Species
Bureau of Sport Fisheries and Wildlife
U.S. Department of the Interior
Washington, D.C. 20240

Concessions: a continuing threat to park quality

a staff report



Located deep within Yellowstone National Park, Canyon Village accommodates 1,980 tourists at maximum overnight capacity with food, souvenirs, and film available close by. Largely operated by Yellowstone Park Company, part of Canyon Village is shown here. The largest building is their restaurant, main lodge, and gift shop, and it is backed by a complex of company employee dormitories. Convenient visitor services, yes, but the parks are better protected if future similar facilities are conveniently located outside the boundaries, leaving the park itself protected. (National Park Service photo)

Concessioner-operated tourist facilities have been proliferating in our parks for many years. From California's Yosemite National Park where the stately Ahwahnee Lodge has graced Yosemite Valley for over half a century, to the modern cinderblock-and-plate-glass motels at Flamingo Point, the National Park Service has granted concessioner companies considerable influence over the natural environments in our national parks. NPCA thinks it is time for a change.

The National Park Service organic act of 1916 restricts the National Park Service to low-key development concepts. The law mandates the Park Service to manage its lands so as to leave them unimpaired for future Americans. Irreversible commitments of national park resources must be minimized, and growth patterns that might limit the recreational choices available to future park visitors must be avoided. This policy guideline is based on good common sense; respect for future needs, passed on from generation to generation, will result in a National Park System carefully protected from man's influence.

Unfortunately, this guideline seems to have been ignored, forgotten, or misinterpreted during the past sixty-odd years. Most parks are festooned with lodges, gift shops, service stations, and other structures more appropriate to a weekend resort than to a cherished public resource. Indeed, irreversible commitments are made all too often, and the emerging philosophy on development inside the park system reflects unyielding devotion to an unsuitable luxury motif.

The point is not that the public should be denied access to concessioner facilities, but that concessioner operations inside the parks can easily get out of control. This almost happened at Crater Lake National Park. "The major issue at Crater Lake," said former Chairman of the Council on

Environmental Quality Russell Train in August 1973, "is the fact that the existing concession contract was formulated entirely outside the master planning process, and subsequent master plans have simply endorsed the construction provisions of the concession contract."

At the time of his statement, Russell Train was aware that a large new dormitory for concessioner employees near the rim of the crater was nearly finished. A parking lot, a swimming pool, a fifty-unit motel, and other projects were slated for adjacent sites. All plans were moving ahead before any public forum had been convened to discuss the environmental effects of these improvements, as is required by the National Environmental Policy Act of 1969. Only firm action by Mr. Train and Assistant Secretary of the Interior Nathaniel Reed preserved the integrity of NEPA's public review process, and the Park Service was asked to suspend the project until after public comments had been received.

Only a few weeks later, NPCA discovered another concessioner plan at the South Rim of Grand Canyon National Park. NPCA disclosed that a thirty-year contract had been signed with Grand Canyon's concessioner, Fred Harvey, Inc., calling for not less than \$5,000,000 in new developments. The first phase of the program, using 60 percent of the money, was deadlined for December 31, 1973, and included new employee residence halls, cafeterias, gift shops, a cocktail lounge, and a trailer camp. No less a potential disaster than at Crater Lake, the project at the South Rim also seemed destined to ruin many natural values.

The Fred Harvey contract, NPCA learned, is backed by a second contract with a San Francisco landscape design firm for "comprehensive design procedures and site selection"—all within the park—for the proposed new shops

and lounges. Clearly, the National Park Service was serious about its plan. No master plan and no development concept plan (nor the required environmental statements) were available for public review, and the Park Service had fostered two contracts for extensive in-park developments.

NPCA protested to the Park Service, expressing alarm and distress at the ill-conceived contract and, again, at the failure of the Park Service to comply with required NEPA procedures. "In the context of two existing contracts," NPCA stated, "one with the concessioner and one with an environmental design firm, any forthcoming development concept and master plan documents. . . can be seen only as justifications for decisions which have already been made." The existence of both contracts completely pre-judges what should be a public decision: whether in-park concessions are appropriate for Grand Canyon or any other national park.

Even when an enlightened policy on tourist services is implemented in a park, there is no guarantee that the concessioner management will not try to reverse the situation. In 1972, the Park Service executed a contract with TWA Services, Inc., a subsidiary of Trans World Airlines, for the operation of concessions in Bryce Canyon and Zion national parks and on the North Rim of Grand Canyon National Park. Under this contract, TWA Services promised to relocate tourist accommodations outside the park at Bryce Canyon within three years, at Zion within five years, and on the North Rim within nine years. Tourist facilities for each park, and for Cedar Breaks National Monument as well, are to be situated in communities surrounding the area.

An executive for TWA Services made a public promise that the company intends to comply with the contracted phase-out schedule "100 percent." But in the same breath, he hinted that TWA could be easily persuaded to stay in the park. "It's up to the citizens how they want to handle this. If they want to speak out against it, they should."

Undeniably, some citizens spoke out. TWA Services polled its own customers and revealed that "92% of the visitors responding to our customer reaction survey at the parks indicated that they prefer in-park overnight facilities." It is interesting, however, that 8 percent of the customers who filled out forms apparently would have been just as happy outside the parks.

According to local sources, TWA Services then began lobbying efforts with the Cedar City, Utah, Chamber of Commerce, indicating that in-park lodgings would do more to promote tourism in Utah than would an unspoiled park. Reportedly, the point was made that TWA's worldwide advertising would bring more tourist traffic than local advertising interests could ever hope for—a result that of course would depend on TWA Services staying in the park.

No action comes quicker than the response of a small town chamber of commerce motivated by the promise of new business. And, of course, many citizens become involved. The result in this case was a new anomaly for the National Park Service—outside business pressing for in-park concessions. "Suddenly we're getting letters from

Cedar City, Utah," the Deputy Director of the Park Service told us, "asking us to keep the concessions inside the park. This is strong public pressure."

Regardless of the national park being considered—Zion, Grand Canyon, or historic Yellowstone—the concessioner issue is the same. All new concessions belong outside the boundaries of the parks where tourist traffic may boost small town revenues. Further, to the extent possible, the Park Service should phase out current concession operations to locations outside of parks as part of regional plans designed to protect parks and provide for public enjoyment. Tourist accommodations and facilities will serve the public just as well if placed adjacent to, instead of inside, the parks.

The concessioner issue is one of basic policy for the administration of the National Park System: How can parks be preserved in an unimpaired state for present citizens or future generations when bulldozers are busy carving out new sites for gift shops at the behest of powerful concessioner firms? It is time for a change, time for a new, strong policy on concessioner developments. National park boundaries must be recognized as the limit for new private enterprise, however public spirited. Generations yet unborn will thank us for taking strong protective measures now. ■

HELP THE NATIONAL PARKS

NPCA's members can play a crucial role in the future of concessioner-operated tourist facilities in our national parks. During this time when so many concessioner issues are awaiting action at the National Park Service, your letters and public-interest telegrams will have a great impact on concessioner policies.

The National Park Service has stated its intentions to phase out concessioner facilities and lodgings in many areas. This policy must be praised by park-using citizens and reinforced by everyone who takes an interest in the National Park System. Letters can be addressed to:

Ronald H. Walker, Director
National Park Service
Washington, D.C. 20240

TWA Service, Inc., the concessions firm for Zion and Bryce Canyon national parks, Cedar Breaks National Monument, and the North Rim of Grand Canyon National Park has signed a contract calling for a gradual removal of these services from inside the parks. Apparently, they are claiming that the public wants them in the parks. Letters specifically requesting that they abide by their original contract provisions and comply with the phase-out schedule can be sent to:

Charles Tillinghast, President
Trans World Airlines, Inc.
605 Third Avenue
New York, New York 10016

NPCA at work

Pressure mounting against Grand Teton jetport NPCA has urged Secretary of the Interior Rogers C. B. Morton to release a decision to end the proposed Jackson Hole Airport expansion in Grand Teton National Park, Wyoming. If the expansion were carried out, the airport would accommodate regular jet service, which would result in increased noise and pollution, seriously degrading the park environment. NPCA called the airport expansion an "irreversible commitment of park resources and a misuse of park land space."

NPCA cited evidence that both the Environmental Protection Agency (EPA) and the President's Council on Environmental Quality (CEQ) are in favor of denying the permit to expand the airport in Grand Teton. The expanded airport would service planes the size of Boeing 737 jets. EPA requested that the Park Service consider moving the existing airport outside the park and developing alternative transportation systems for the area. A recent statement from the CEQ to Assistant Secretary of the Interior Nathaniel P. Reed called the proposed jet service into the park unwarranted and undesirable. The CEQ also called the existing airport incompatible with the purposes of a national park. Backed by support from EPA, the CEQ, and the conservation community, Secretary Morton should, NPCA urged, deny the permit for the proposed Jackson Hole Airport expansion immediately.

NPCA concluded that a decision at this time "would restore widespread confidence that the Department intends to pursue a public recreation land-use policy based on respect for the natural environment and for the rights of future generations to determine the use of their national parks heritage."

Regional recreation planning In a continuing exchange, Ronald H. Walker, National Park Service Director, and A. W. Smith, NPCA President, discussed regional recreation planning

as a means of preserving national park lands as wilderness. Last May the Park Service began a pilot effort with a regional recreation plan and master plan study for Great Smoky Mountains National Park. President Smith discussed these problems with Mr. Walker shortly after his appointment but was not informed of the plans for Great Smoky Mountains until recently.

After reading the Park Service policy statement on Regional Coordination and Land Use Planning, President Smith made the following comments to Mr. Walker:

"Regional planning as such will accomplish nothing whatsoever without proper objectives. It may indeed simply invite local pressures looking toward the impairment of the parks unless it is geared to sound objectives from the beginning.

"The essential objectives and elements of recreational regional planning intended to protect natural conditions in the parks (as required by the National Park Service Act) include the following:

"(1) The substitution of public transit for the private automobile to the maximum possible extent within the parks.

"(2) The substitution of public transit from communities outside the parks into the parks in place of private automobile transportation to the maximum possible extent.

"(3) A freeze on facilities within the parks, including buildings, roads, and parking lots.

"(4) A reduction of facilities such as roads and parking lots to the extent made possible by the reduction of private automobile use within the parks.

"(5) The dispersion of visitors in terms of camping, campers, and the like into the communities beyond the public lands, assisted by assurances against further development within the parks.

"(6) The fostering of well planned private recreational development in the communities beyond the public



lands, assisted by assurances against further development within the parks.

"(7) The substitution of external, in place of internal, concessions; that is, recreational business outside the public lands would be given concessions to operate public transit in and into the parks, and concessions within the parks would be phased out.

"(8) Firm federal interdepartmental and interagency planning which would bring an integrated protective plan around each of the parks. This means coordination at the Presidential level, and cannot be accomplished by efforts at local regional planning by the National Park Service. It is essential, in our judgment, that the NPS lend its efforts toward the establishment of such an interdepartmental planning system within the federal government.

"As examples of such top-level federal planning, we point to the necessity of subjecting the Federal Highway Administration to the national disciplines required if the park system is to be preserved; its planning and activities must be subjected to Park Service standards, and not dictate those standards.

"As another example the Forest Service must be required to manage its timber holdings in such a way as to preserve the forests for recreational, and not alone for timber-harvest purposes. This is not going to be done by little local agreements with Forest Service supervisors; it has to be worked out at Presidential levels to make sure that we get what this country needs in terms of both recreation and good forestry."

President Smith continued with specific applications of these points for protection of the Great Smoky

Mountains. He also offered the Park Service the assistance of the NPCA staff on the master plan and regional plan of the Great Smoky Mountains. Hopefully, the Great Smokies plans can be in fact a model for the rest of our national park system.

Endangered Species Conservation Act

Late in December, the President signed into law the Endangered Species Conservation Act of 1973. By invitation of the responsible Congressional committees and subcommittees, the NPCA staff had worked on the subject of this act for over a year. It dovetailed with the NPCA work on the Convention on International Trade in Endangered Species of Wild Fauna and Flora (May 1973 issue).

The bill seems to be a resounding success due to four provisions. The first milestone provision defines "species" as including species, subspecies, and population segments. NPCA worked hardest for this provision because it will allow the preservation of endangered animal and plant population segments in regions where they naturally occur, without reliance on the status of the species in other regions. It is particularly appropriate in the case of large predators such as the grizzly bear, which is doing reasonably well in Alaska but is endangered

in the coterminous states. Therefore, we will be able to list the grizzly bear as endangered in states other than Alaska.

The second significant provision establishes interagency cooperation. It states that "all other federal departments and agencies shall . . . insure that actions authorized, funded, or carried out by them do not jeopardize the continued existence of such endangered species and threatened species or result in the destruction or modification of habitat of such species. . . ." This provision will moderate the destruction and alteration of essential habitat, which is the prime cause of extinction of animals in the United States as well as in the rest of the world.

The third provision authorizes new powers for the Secretary of the Interior. He may, under emergency conditions, stop all taking of an endangered species. Under the old act, the Secretary could not stop the killing of an endangered species of animal in the United States, even if such killing would result in the extinction of a species.

The fourth provision allows for citizen suits. Through this provision citizens can require enforcement by the government of this act and its provisions. Organizations such as NPCA

can compel the government by court action to take proper and necessary measures to obtain compliance with the law, if such compliance is not voluntarily forthcoming. A related provision will enable NPCA to petition (as we did regarding lead poisoning in waterfowl, NPCA at Work, April 1973 issue) the Department of Interior to list animals and plants under the new act.

This legislation may be as important as the National Environmental Policy Act of 1969 in protecting and preserving wildlife and their habitats in natural conditions throughout the United States.

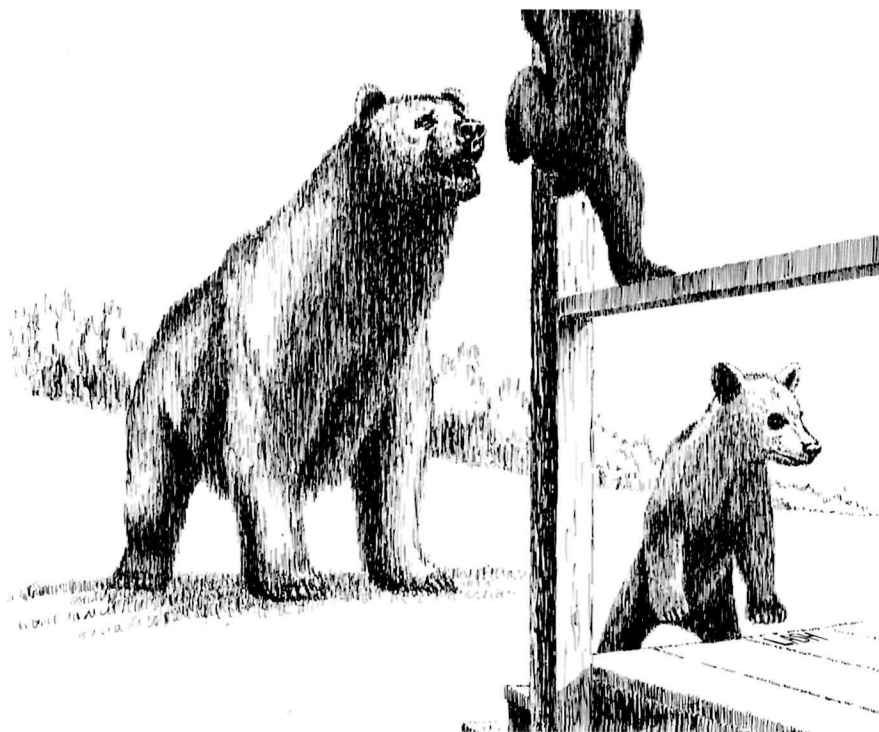
Grizzly bear controversy continues

NPCA received a response from John R. McGuire, Chief of the U.S. Forest Service, to our request that the grizzly bear hunting season be closed immediately in the Gallatin, Teton, and Shoshone national forests that surround Yellowstone National Park. Unfortunately, the Forest Service continued to disregard claims by reputable scientists that the grizzly bear is in danger of extinction, as discussed in our February 1974 issue.

Mr. McGuire cited formal agreements with the states of Wyoming and Montana which recognize their primary responsibility for wildlife management. He implied that these agreements prohibit Forest Service action.

On January 2, 1974, NPCA again protested the Forest Service stand. If the Forest Service has given its lawful authority in this matter to the states, the urgency of the present situation demands that the agreements be terminated and renegotiated. NPCA cited established precedents for unilateral Forest Service action in similar cases which could be applied to the hunting season on grizzly bears and urged the Forest Service to reevaluate its priorities, responsibilities, and authority in light of the present endangered status of the grizzly bear.

On January 8, 1974, a group of organizations headed by NPCA met with Mr. McGuire to discuss the grizzly bear problem. We again urged Mr. McGuire to act to support and protect the public interest by closing the season on grizzly bears throughout the Yellowstone ecosystem. Basically Mr.



McGuire rejected our requests, noting the Forest Service's unwillingness to act now to ensure the bear's survival. Letters from our members to Mr. John McGuire, Chief, U.S. Forest Service, Washington, D.C. 20250, urging the Forest Service to ensure the bear's survival, will help.

Leasing measure for national forests opposed In December NPCA testified by invitation before the Public Lands Subcommittee of the House Committee on Interior and Insular Affairs on the highly controversial proposal known only as HR 10491. NPCA opposed the legislative proposal, claiming that it was especially geared to facilitate multimillion-dollar recreation developments on national forest lands.

In addition to other provisions, HR 10491 would alter an existing term permit system for ski resorts, hotels, and related facilities and services in the national forest system by leaving the amount of land to be leased solely to the discretion of the Secretary of Agriculture. The present amount is limited by statute to a maximum of eighty acres for a period not to exceed thirty years. By changing the existing system, NPCA charged that a precedent might well be established to provide similar rights, preferences, and terms as defined in HR 10491 to livestock and timber interests that also use the resources of the national forests on a permit or contract basis.

NPCA pointed out to members of the subcommittee that, because of similarity in language and provisions, HR 10491 would have the same basic thrust as the Concessions Policy Act (PL 89-249) of the National Park Service. The majority of concessions authorizations on national parks, however, are for a period probably less than ten years, with thirty-year terms reserved almost exclusively for multimillion-dollar development programs. HR 10491, for the national forests, would extend the present thirty-year term to fifty years.

Though NPCA is wary of massive ski and related developments that pose a threat to roadless and undeveloped areas of the national forests, it does not oppose the more prudent development of outdoor recreation facilities and services on other areas of the 187-million-acre national forest system

where a large number of ski resorts already exist. Such developments, however, should be the result of comprehensive regional planning that reflects the capabilities of the land and also the cooperative input of both the public and private sectors. Furthermore, because the U.S. Forest Service itself reported in 1972 that its "concession system is fundamentally sound and that the concession environment is healthy," NPCA claims that there is no sufficient justification for changing the existing term permit system.

EPA "Prevention of Significant Air Quality Regulations" In the November 1973 issue we reported that NPCA, with other environmental groups, had testified at a public hearing on the Environmental Protection Agency's proposed "Prevention of Significant Air Quality Regulations." NPCA recently learned that the final regulations will soon be promulgated.

In view of our special commitment to the preservation of the National Park System, on January 14 NPCA President A. W. Smith made the following further recommendation to the Administrator of EPA, Russell Train: "In your formulation of national air quality standards NPCA urges you to protect the esthetic, scenic, and recreational values of national parks, national forests, and national wildlife refuges by maintaining their pristine air quality."

President Smith urged EPA to act upon its intention to protect these unique areas by requiring that no increment in air quality deterioration be allowed in national parks, forests, or wildlife refuges. These "ultra-clean" areas (as they are referred to by EPA) represent part of our national heritage and must be preserved inviolate.

Proposed Hells Canyon National Recreation Area In a statement submitted on invitation to the Senate Interior Committee, NPCA supported S 2233, which proposed the creation of the Hells Canyon National Recreation Area. The bill, sponsored jointly by Senators Frank Church and James McClure of Idaho and Senators Mark Hatfield and Robert Packwood of Oregon, creates both a national recreation area and a wilderness area along more than 100 miles of the Snake River.

NPCA suggested four changes to strengthen the bill and ensure the best possible protection for this two-state recreation area: (1) The Rapid River watershed, in Idaho, was suggested for immediate designation as a wilderness area. This area was included in S 2233 for study as potential wilderness. (2) The Imnaha River, which flows into the Snake River on the Oregon side of the proposed NRA, was suggested as an immediate inclusion in the National Wild and Scenic Rivers System. (3) NPCA requested that Section 6(b) of the bill, prohibiting minimum stream flow specifications for the Snake River, be deleted. (4) It was requested that motorized river craft be excluded from the wild and scenic sections of the Snake River. Such traffic is not restricted in the bill.

NPCA offered specific commendation to Section 11, withdrawal of Hells Canyon NRA from mineral entry, and Section 5, deauthorization of the Asotin Dam. These measures contribute significantly to the preservation of wilderness-recreational resources covered in this bill.

NPCA stated to the Committee that "This bill deserves prompt referral to the Congress in a strong form, and merits wholehearted support as a measure to protect our wilderness heritage." Hopefully Washington, D.C., hearings will open soon.

Boats can destroy fragile marsh Recently NPCA asked Leslie P. Arnberger, Superintendent of Cape Cod National Seashore, to prohibit destructive operations of boats within the fragile marsh areas of the national seashore.

NPCA does not find the correct use of boats in the marsh areas objectionable but does strongly condemn reckless operation. Some operators run their boats at full speed in the marsh channels, tearing out chunks of peat and destroying vegetation. Wakes from craft operated in that manner destroy the marsh and marsh banks. Local residents report that boats operated in a similarly irresponsible manner destroy wildlife resources; ducklings have been run down in the marsh by boats traveling at high speeds.

High-speed operation of boats may be appropriate in the relatively large open water areas that are not totally within the national seashore.

However, high speed and obviously reckless and destructive boat operations are not appropriate or justified in the confined and fragile marsh areas such as Nauset. (See page 16.)

If there are any regulations prohibiting such operation of boats within the marsh areas of the seashore, NPCA asked that enforcement measures be taken. If not, NPCA urged that the Superintendent promulgate regulations prohibiting negligent, destructive, irresponsible, and high-speed boat operation within the marsh. Speed limits or "no wake" signs on channel areas would be appropriate with direct notices to residents and signs posted at major boat landings.

Proposed John Day Fossil Beds National Monument By invitation, NPCA appeared before the House Subcommittee on National Parks and Recreation in support of HR 1252, the bill to establish John Day Fossil Beds National Monument in Oregon. The proposal for this new unit of the national park system was introduced by Rep. Al Ullman. The current proposal asks for three isolated units

of recreational land, separated by as much as twenty miles of the John Day River. The lower part of the John Day River, which runs for two miles through one of the proposed units, has been designated as part of the Oregon Scenic and Wild Rivers System.

NPCA proposed including lands between the isolated units in the national monument, thus creating a single unit for administration by the National Park Service. We stated that this recommendation could be met by including the John Day River watercourse and a tributary watercourse in the proposal. This would add to the lands protected by the national monument and add to the protection of the John Day River upstream from the part designated as an Oregon scenic and wild river.

NPCA received a favorable reaction from the subcommittee to the proposal to create contiguous management units. The committee is asking for additional work on this section of the proposal in hopes of adding to the legislation.

NPCA suggested that many undesirable impacts on the proposed

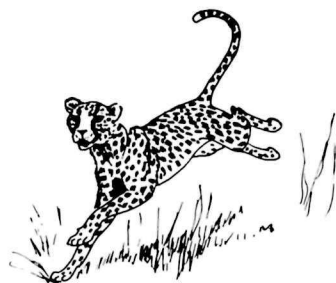
monument could be reduced by a specific legislative provision that would recommend minimizing automobile-oriented developments in this new national monument. However, the final environmental statement suggests that new roads and parking areas are in the master plan, designed to handle increased traffic loads of the future inside the national monument.

National Park Service Regional Advisory Committees

In December the Northeast Regional Advisory Committee held its fifth meeting in Philadelphia, Pennsylvania. NPCA was represented at the meeting by Roger S. Pratt, who attended the meeting as a private citizen. Mr. Pratt met with the NPCA staff a few days later in Washington to discuss the nature of the Advisory Committee and the potential role of NPCA in this system.

Mr. Pratt felt that some problems with the Advisory Committee need to be resolved by the Park Service. For example, the selection of Committee members seemed to have been somewhat arbitrary and did not reflect any effort to locate individuals who

SEE EAST AFRICA with NPCA



NOW IN THEIR FIFTH YEAR, OUR LEISURELY FIELD TRIPS WITH INTERPRETIVE LEADERSHIP SHOW YOU THE REGION IN DEPTH AS WELL AS BREADTH: ITS PEOPLES, ITS WILDLIFE, ITS SPLENDID LAND AND SEASCAPES

YOU SPEND NIGHTS IN THE WILDERNESS right among the animals . . . elephants, hippos, rhinos. The hoofed beasts: zebra, giraffe, impala. The predators: lion, leopard, cheetah. More birds than you ever imagined.

YOU MEET black leaders, white settlers, Asians in turbans or saris . . . visit tribesmen in their villages and watch them dance.

YOU LEARN about the ethnic struggle . . . tribalism vs. nationhood . . . agriculture vs. conservation . . . modern development vs. primitive folkways.

YOU TRAVEL IN COMFORT—room and bath at delightful lodges. Game viewing in uncrowded cars, with body room and a window seat for everyone. An easy pace . . . often two nights in the same place. OUR GENEROUSLY INCLUSIVE PRICES cover round-trip air fare to and from New York and everything else (even tips) . . . no hidden extras. Year-round departures at frequent intervals.

22-DAY TOUR BY ROAD: group limit, 24 persons

\$1777

(June, July, August, add \$55)

25-DAY TOUR BY AIR: group limit, 9 persons

(Travel over longer African distances by new five-passenger planes. Includes flights to Lake Rudolph, Samburu, Zanzibar, and a horseback-camel camping trip.) Write Travel Desk:

\$2740

(June, July, August, add \$84)

**NATIONAL PARKS AND CONSERVATION ASSOCIATION
1701 Eighteenth Street, N.W. Washington, D.C. 20009
or telephone (202) 265-2717**

had distinguished themselves in areas related to parks or even public recreation. Further, no forum exists through which the Committee can review systematic inputs from interest groups such as NPCA.

Although there is some doubt as to the effectiveness of the Committee in helping to preserve our parks or in solving specific management problems, both Mr. Pratt and the NPCA staff feel the Committee deserves our continued attention and communication. We are grateful to Mr. Pratt for his helping hand and hope that other members in Philadelphia can continue to lead our efforts to monitor the operations of the Regional Office, either through the Advisory Committee or more directly.

An NPCA member, David R. Strickland of Muskogee, Oklahoma, was appointed to the Southwest Regional Advisory Committee. Mr. Strickland was kind enough to send us an account of their December meeting. Again, the role of the Committee seems to be more of a format for discussion than an agent for attacking specific issues surrounding the parks.

We sincerely hope more NPCA members will emerge in other regions to help us watch these committees. Please write us with your ideas, and we will do all we can to help.

Highway to destroy park lands and waste energy NPCA recently provided comments on a draft environmental impact statement for the Interstate 66 Transportation Alternatives Study and presented written testimony for the marathon five-day hearing held in Arlington County, Virginia, to assess

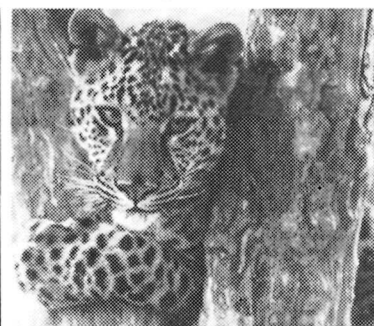
public opinion prior to decision-making. If constructed, I-66 would cut its six-to-eight lane, 500-foot-wide swath through the heart of Arlington County, destroying all or portions of twenty-four local, regional, and national parkland areas. In addition, the resulting traffic congestion and air, water, and noise pollution caused by I-66 would be intolerable.

Making specific reference to the nation's current energy shortages, NPCA expressed complete opposition to construction of I-66, particularly because the study itself shows, as mass transportation advocates have long known, that the combination of an expanded METRO subway system (now under construction) with increased bus service can meet all

TIGER HAVEN

by Arjan Singh

The story of one man's efforts to defend the beautiful animals who can no longer defend themselves.



"A really splendid book," reports the *London Times*. "Singh's attempt to preserve, as part of India's heritage, the tiger, the chital, the sambhar, leopard and marsh crocodile, and to build up what may possibly be the last herd of swamp deer in the world... is a continual battle against the indifference of politicians and the active hostility of farmers. Some wonderful stories of his sanctuary in Northern India, and even more wonderful photographs, which he took himself." Profusely illustrated in color and black-and-white, \$8.95 at bookstores.

Harper & Row
10 E. 53rd St., New York 10022
1817

National Parks and Conservation Association
Attention: Tiger Haven Wildlife Trust
1701 Eighteenth Street, N.W.
Washington, D.C. 20009

Gentlemen:

Please send me *Tiger Haven* by Arjan Singh. I am enclosing \$..... for copy(ies). I understand that 40% of the \$8.95 selling price of the book, or \$3.59 is a contribution to NPCA's conservation efforts and is therefore deductible for federal income tax purposes. NPCA is actively engaged in support for the Tiger Haven Wildlife Trust and other exciting conservation programs at home and abroad.

Name

Address

City State Zip

Please make checks payable to National Parks and Conservation Association.

WILDERNESS RAFT TOURS

YUKON RIVER TOURS offers a limited number of summer float trips on the vast and lonely Yukon, in the Canadian Northwest wilderness. Small groups—space is limited, write early to: Yukon River Tours, 1430 SW 85 Ct., Miami, Florida 33144.

11,000 35 MM COLOR SLIDES!

Art, architecture, scenic grandeur, natural history and historical landmarks of all continents, 50 states. Described and available individually. Constantly added to and up dated. World's largest selection. Highest professional quality. 126-page slide encyclopedia — catalog, 25c. Includes free sample slide country of your choice.

Wolfe World Films, Dept. 38-34, Los Angeles, Ca. 90025

projected transportation needs at less than half the cost of I-66 and without the pollution and the destruction of land and homes.

Beyond the fact that I-66 construction would destroy as much as 50 percent of Spout Run Parkway and several sections of the George Washington Parkway, both administered by the National Park Service, NPCA expressed particular concern that completion of I-66 to the Potomac River, as proposed, would necessitate the additional construction of the Three Sisters Bridge across the river and the so-called Southleg Freeway in the District of Columbia. The Southleg Freeway would be built as a tunnel under the Lincoln Memorial and as an open-trench six-lane highway down much of the length of the Potomac River parklands, also national parklands administered by the National Park Service. NPCA cannot tolerate such desecration of our national monuments and

parklands, particularly when a more feasible, less wasteful and destructive alternative exists.

NPCA members wishing to express their views may write to Mr. D. E. Keith, Resident Engineer, Virginia Department of Highways, 3555 Chain Bridge Road, Fairfax, Virginia 22030.

Proposed Zion Wilderness In January NPCA commented on the proposed Zion Wilderness, Zion National Park. NPCA commended the Park Service for proposing land for inclusion in the Wilderness Preservation System, as established by the Wilderness Act of 1964, thereby affording supplemental protection to the natural values within this national park.

We concurred with the intent of the Zion proposal but called upon the Park Service to make its proposal more inclusive and forceful. Unfortunately, after studying the draft environmental impact statement for the proposed wilderness, NPCA found the proposal lacks provision for acquiring water rights, grazing leases, and private holdings within the park. In its present form the proposal is marred to the point of offering minimal protection to otherwise qualified public wilderness lands.

NPCA offered a series of suggestions, including moving wilderness boundaries closer to the road rights-of-way, and acquiring private holdings as measures to improve the wilderness proposal. NPCA feels strongly that the proposed Zion Wilderness must be more closely guarded by proposals to phase out nonconforming land-use practices.

When it was learned that commercial interests in southern Utah had mounted an antiwilderness campaign to defeat the Zion Wilderness proposal, several NPCA members wrote letters in favor of a strong wilderness proposal. We are grateful to Robert Coshland of Tucson, Fred Eldean of Phoenix, Edna Baker of Los Angeles, and others for their work on behalf of the Zion Wilderness.

Report to members This month we will be making a random survey of a small section of the membership. The purpose of the survey is to try to determine the makeup of the membership, your interests and desires in the conservation field, and in what way the

Association can become more effective in serving your needs. The cooperation of the members in filling out and returning the survey will be deeply appreciated. The results of the survey will be reported to the membership in full in a subsequent issue of the magazine.

Again, in this context, your comments on articles appearing in the magazine would be extremely useful to us in determining future article content. If an article strikes you in some way, pro or con, please write the editor, Ms. Connally. We hope to enclose a readership survey card in the magazine in the near future.

For some time now we have not made use of our referral mailings in which we ask members to refer potential members to us. We are reinstituting this program this month; and if you happen to receive it, we will be most grateful if you will send the names of your friends to us. In these days of declining membership in the conservation field, your Association needs all the help it can get from its members and friends.

news notes

Assateague Wilderness Hearing: The Superintendent of Assateague Island National Seashore and the Refuge Manager of Chincoteague National Wildlife Refuge have prepared a joint "Preliminary Feasibility Study of Wilderness Potential on Assateague Island." Identifying approximately 6,500 acres as potentially qualifying for wilderness designation on the island, the study calls for a complete investigation of the island for wilderness suitability. Hearings have been tentatively scheduled for April 1974.

Members wishing to comment or testify on the proposal should write either

National Park Service
Assateague Island National
Seashore
Route 2, Box 294
Berlin, Maryland 21811
or
Bureau of Sport Fisheries
& Wildlife
Chincoteague National
Wildlife Refuge
P.O. Box 62
Chincoteague, Virginia 23336

WILD RIVERS RAFTERS



INDIAN LIFE

Raft America's Deepest Gorges!

Hells Canyon of the Snake, Salmon River ("River of No Return"), and Middle Fork • First offering of the Owyhee, a river few have seen • Combination Salmon River float and high country horseback trips • Salmon River "U-Row", using newly designed rubber kayaks, with support raft leading the way • Special interest nature, wild life camera safaris • Early booking essential. Request color brochure with details, dates and rates.



Wilderness Encounters, Inc.
Jim Campbell, President
P.O. Box 232, Dept. N12
Cambridge, Idaho 83610
Phone 208/257-3410



Paper recycling in Fort Worth Fort Worth, Texas, may become an inspiration for those cities that would like to

bring in more revenue as well as recycle paper. Under the Fort Worth's Ecology One project, regular garbage pickups will be reduced from two to one each week. The second garbage run each week will be devoted exclusively to picking up scrap paper. This method of collection will be put into effect early in 1974 on an experimental basis in one-fourth of the city. If the project works, citywide scrap

paper collections at all homes will begin on a weekly basis later in 1974. The price of old paper has jumped from \$9.25 per ton to \$23 a ton in two years. At that rate the city treasury projects that it may realize an annual profit of \$250,000 while helping its citizens to recycle their paper. If the plan works, Fort Worth would be the first major city in the nation to move into large-scale paper recycling.

conservation docket

As the second session of the 93rd Congress convenes in this election year of 1974, our leaders on Capitol Hill are faced with many crucial decisions that will have far-reaching effects on the environment and the American life style. Yet to be enacted at this writing are the energy emergency act, land use planning and strip mining regulation, as well as bills concerning energy conservation, forestry, solar energy, predator control, Big Cypress, Big Thicket, eastern wilderness, an organic act for the BLM, and other important measures.

Aside from specific legislation before Congress, another issue that at least potentially will have far-reaching effects, not only on environmental issues but also upon every phase of legislation, is the proposed reorganization of committee structure and procedures in the U.S. House of Representatives.

As prepared by the House Select Committee on Committees chaired by Rep. Richard Bolling of Missouri, the reorganization proposal has been made public in a working draft report that will undergo intensive committee markup before being reported to the House floor, probably in early spring.

Following is a brief summary of aspects of the report that should be of interest to NPCA members.

The basic objectives of reorganization are sixfold. First, membership on committees dealing with broad segments of public policy should be exclusive; i.e. the report recommends that members serve on only one major committee rather than on two as at present. Second, committee jurisdic-

tion should be arranged to attract a more broadly representative membership. Third, committees should be organized to maintain jurisdiction over related areas of public policy to avoid fragmentation of issues. Fourth, the House should continuously review jurisdictional assignments and ensure intercommittee cooperation. Fifth, committee structure should contain incentives for legislative oversight; i.e. the report recommends that each major committee establish an oversight subcommittee, which would principally review executive branch action in its area of jurisdiction. This oversight function is now performed by the Government Operations Committee. Sixth, the House should develop a more professional management of information resources by increasing staff and support activities.

In regard to the jurisdictional plan, itself, environmentalists should be interested in several of the newly realigned, so-called "exclusive" committees. Membership on these 15 exclusive committees will average 29 members, significantly fewer than under the dual membership structure at present.

The jurisdiction of the present Agriculture Committee will be expanded considerably to become the Agriculture and Natural Resources Committee. The present jurisdiction of the Agriculture Committee will generally be maintained, losing only such things as agricultural colleges, food stamps, small watersheds, and a few others; however, these losses will be more than replaced by the added jurisdiction over parks and wilderness, wildlife, fish and fisheries, public lands (except management of energy resources), the present forestry responsibilities of the Interior Committee, and certain marine affairs.

It is obvious that to increase the jurisdiction of the Agriculture Committee in such a manner, some other committee must bear this loss in jurisdiction. The House Merchant Marine and Fisheries Committee, presently maintaining control over wildlife, fish and fisheries, and marine affairs, among others, will be abolished.

Other areas of jurisdiction of the present Merchant Marine and Fisheries Committee, including coastal zones, ocean dumping, and national environmental policy are being taken over by the newly established Energy and Environment Committee. This new committee, formed around the present Interior and Insular Affairs Committee, will consolidate a wide range of both energy and environmental subjects, now found in several separate committees, into one all-encompassing committee.

Under the proposed reorganization the new Energy and Environment Committee will have jurisdiction over the environment in general including the National Environmental Policy Act (NEPA), water and power resources, clean air, clean drinking water, clean water, coastal zones, noise, ocean dumping, radiation, solid waste, toxic substances, land-use planning, flood control; and the whole energy field, including energy conservation, allocation, regulation, tax expenditures and power administration, energy-related minerals and fuels, energy-related mines and mining, leasing and management of energy resources from public lands, and naval petroleum and oil shale reserves.

Under the reorganization plan, these two newly aligned committees, Agriculture and Natural Resources and Energy and Environment, will have jurisdiction over nearly all the subjects

of interest to most environmentalists. It remains to be seen, however, whether this realignment of committee functions will benefit the environmental cause. In the short term, any benefit derived from reorganization will depend primarily on seniority in the House and secondarily on the personal committee choice of individual Congressmen. Over the long term though, the merits of this new committee structure will depend on the type of Congressman, obviously reflecting his constituency, who is drawn to the particular combination of functions found in newly rearranged committee jurisdictions.

Among the other realigned committees of interest to NPCA members is the Commerce and Health Committee (formerly Interstate and Foreign Commerce), that will have responsibility for consumer protection, population, time, health care, communications, insurance, the regulatory agencies,

and other subjects under the plan. Another committee of interest has been Public Works, which will become Public Works and Transportation under the reorganization. Losing only water quality, water power, and flood control functions, the present Public Works structure will be bolstered with the addition of mass transit, railway transportation, civil aviation, merchant marine, and coast guard, while retaining rivers and harbors, highways, regional development, and other traditional public works matters.

Finally, the present Science and Astronautics Committee will become the Science and Technology Committee, whose scope will be increased to cover all research and development functions including environmental and energy as well as oceanic and atmospheric sciences and weather.

Also of related but indirect interest to NPCA members is the creation of a

separate Budget Committee which is seen as an attempt by the Congress to assert some initiative in the complex problem of preparation of the national budget, rather than relying totally on the one presented to Congress by the President and his Office of Management and Budget (OMB).

Of major significance in the interest of Congressional reorganization is the fact that the Appropriations Committee and the Rules Committee are left virtually unchanged.

In conclusion, considering the large number of powerful Congressmen which the carrying out of this reorganization package would affect, the most obvious question is whether the plan has any chance for approval; whereas the most significant question is, will the reform plan as outlined accomplish the goal of responding to the needs of our nation? These and other questions will undoubtedly be answered in the coming months.

classifieds

25c per word—minimum \$3. Payment must be enclosed with order. Use ZIP code.

NAMEPLATES FOR TREES. Extremely durable nameplates in Latin and English for outdoor signs on trees and plants. Names imbedded in anodized, sapphire-hard aluminum for clarity, weather-resistance and long life. Delivery made two weeks after receipt of order. Send for order blank and complete list of signs available. Metalphoto Corp. Dept. NPC, 18531 South Miles Road, Cleveland, Ohio 44128.

LOS PINOS RANCH, Cowles, New Mexico, northeast of Santa Fe. Pecos Wilderness Area. Accommodates 14 in a relaxed atmosphere. June to November. No poisonous insects, snakes or mosquitos. Magnificent riding, pack trips, excellent food. Winter address (until May 15) Bill and Alice McSweeney, Craig Rd., Morristown, New Jersey 07960.

SIGNS—No Trespass—for Parks, Preserves, Bird Sanctuaries, private grounds. Metal, aluminum, cloth. Custom made signs. Write J & E Signs, 54 Hamilton, Auburn, New York 13021. Dept. NPC.

ECOLOGY MINDED! Show it on ecology paper. Your personal or business stationery printed on 100% Reclaimed Wastes with Ecology watermark. 50c for samples and prices—refundable with purchase. Dept. NPC, Pure Environment Press. P.O. Box 172, North Abington, Massachusetts 02351.

SKI CROSS COUNTRY—touring, racing, mountain skis, boots, poles, bindings, books, wax, clothing. Snowshoes, Backpacking Gear, Whitewater Canoes and Kayaks, catalog. MOOR & MOUNTAIN, 40 Main St., Concord, Mass. 01742.

Custom club, truck decals, patches, bumper strips. Free folder. ART CRAFT MFG., Box 1601, Webster, Massachusetts 01570.

BUCOLIC ADIRONDACK LODGES. Available half-month, month, or season. July through September. Bartlett Carry Club, Bartlett Carry, Tupper Lake, N.Y.

VIEWS OF THE NATIONAL PARKS in full color, 16 x 20 inches. Ideal for framing in homes, clubs, schools, and offices. Send for list. PHOTO CLASSICS, Dickerson, Maryland 20753.

WILD BIRD HOME/FEEDER COMBINATIONS. Adjustable entrance. \$7.95-\$28.95 ppd. Free literature. Dial-A-Bird, Box 449N, Westwood, New Jersey 07675.

SALMON RIVER/ROCKY MOUNTAIN VACATION in central Idaho. Fly in by charter to roadless historic Shepp Ranch. Jet boat rapids of the only river that defied Lewis and Clark. Spend 2½ days horseback riding trails into Nez Perce 8000' country. Can be done in a "week off." \$375 Boise to Boise, all expense but 3% tax. A "corner of heaven"! For full information: Wilderness Ranches, Dept. N-12, P.O. Box 34, Cambridge, Idaho 88610.

CANOE TRIPS. Quetico Superior Wilderness. Reasonable rates. Also Canadian fly-in Outpost Cabins. Grumman canoe dealer. Free folder. ROM's OUTFITTERS, Ely, Minnesota 55731 (218) 365-4046.

SUMMER COMMUNITY of teenagers. Involvement in work, ecological, service projects. Natural outdoor setting, northern Michigan. Innisfree '74, Maple City, Mich. 48664.

ECOLOGY GREETINGS CARDS! 8 beautiful folders with envelopes. \$1.00. 6 boxes 75 cents each postpaid. Business Card House, 1541 Kings, Shreveport, La. 71130.

Ride, hike Washington's spectacular Cascades. Modern wilderness ranch. Birds, flowers, wildlife. Glorious climate. Brochure. No phone. DOUBLE K MOUNTAIN RANCH, GOOSEPRAIRIE, WASHINGTON 98929.

NATIONAL PARK PUBLICATIONS, Route 4, Box 750N, Evergreen, Colorado 80439. Free Catalog—many titles at \$1.00!

KNOW YOUR INDIAN jewelry, rugs, baskets. Free collector's guide and book list. THE NATURALIST, Route 4, Box 750N, Evergreen, Colorado 80439.

LIGHTWEIGHT BACKPACK and mountaineering equipment. Imported, domestic canoes and Kayaks for day trips, voyageuring, or whitewater. Free catalog. MOOR & MOUNTAIN, Dept. 40, Main St., Concord, Massachusetts 01742.

BOOKS—USED. Free large miscellaneous catalogues frequently issued. Robert Shuhi-Books, RD 1, Box 395, Morris, Connecticut 06763.

ALASKAN WILDERNESS VACATIONS—Camp Denali, McKinley Park, 23rd Year. One week WILDERNESS WALK — All-Expense vacation featuring day hikes and nature lore. TUNDRA TREK backpacking expeditions. CAMP DENALI, Box D, College, Alaska 99701.

OUT OF PRINT BOOKFINDER. Box 663 NP. Seaside, California 93955. Catalog for stamps.

NEW BOOK: 50 HIKES IN ARIZONA. \$4.25 POST PAID DEPARTMENT #1 P.O. Box 507 TOMBSTONE, AZ 85638.

IDAHO WILDERNESS. Small family ranch on remote Selway River. Roadless area. Access fifteen miles by horse or foot. Guests welcome June through September. Off-season address: Selway Lodge, Box N-802, Aspen, Colorado 81611.

Continued from page 2

some of the recreation plans it was commencing some time ago. If the Indians wish to open their reservations to summer vacationers, government can give them a little technical and economic assistance in doing so. If the states were to cooperate in a comprehensive plan, the state parks and forests might also be made more accessible by this system.

THE NPCA has been advocating this approach for a longer time than we like to think. We are writing here about what could be, not what we have as yet. Plans for Rocky Mountain Park are more advanced than in many other places. But the truth is that the job cannot be done within the small unit of a national park, considered alone. The entire surrounding region must be brought into the plan.

We have urged that a system of interdepartmental regional planning for recreational purposes be set up at the Presidential or Cabinet levels. The Park Service, the Forest Service, the Bureaus of Outdoor Recreation, Sport Fisheries and Wildlife, Land Management, and Indian Affairs, and other agencies would get together to offer the best possible combined use of their lands to the public. The system could be worked out tomorrow by Presidential order.

In the last analysis, there cannot be any satisfactory solution to the traffic problems of the parks, and the parks cannot be protected for the people, unless some such step as this be taken. And yet for many years a federal bureaucracy has proved itself impotent to meet this challenge. Perhaps now the fuel and energy crisis forces action for the benefit of the people.

THERE COULD BE a convergence of many otherwise conflicting interests at this time within such an approach. Concessioners now operating facilities within the parks, consortiums of businesses in the communities outside the public lands, and major restaurant or resort chains would have equal opportunity to bid on transportation concessions to bring people into the parks.

The best that has come out of the Park Service thus far, in respect to areas larger than single parks, is a recent directive to Park Superintendents to encourage local regional planning. No adequate guidelines have been laid down in these directives with respect to the objectives of such regional planning.

The result may well be to encourage pressures for

bringing more traffic into the parks, or on the other hand, ill-planned honky-tonk developments in the neighborhood of the parks. A well-organized external concessioner system would require the transportation concessioner to build and operate his resort in accordance with good local community planning standards. We have protested vigorously to the Service against the current approach.

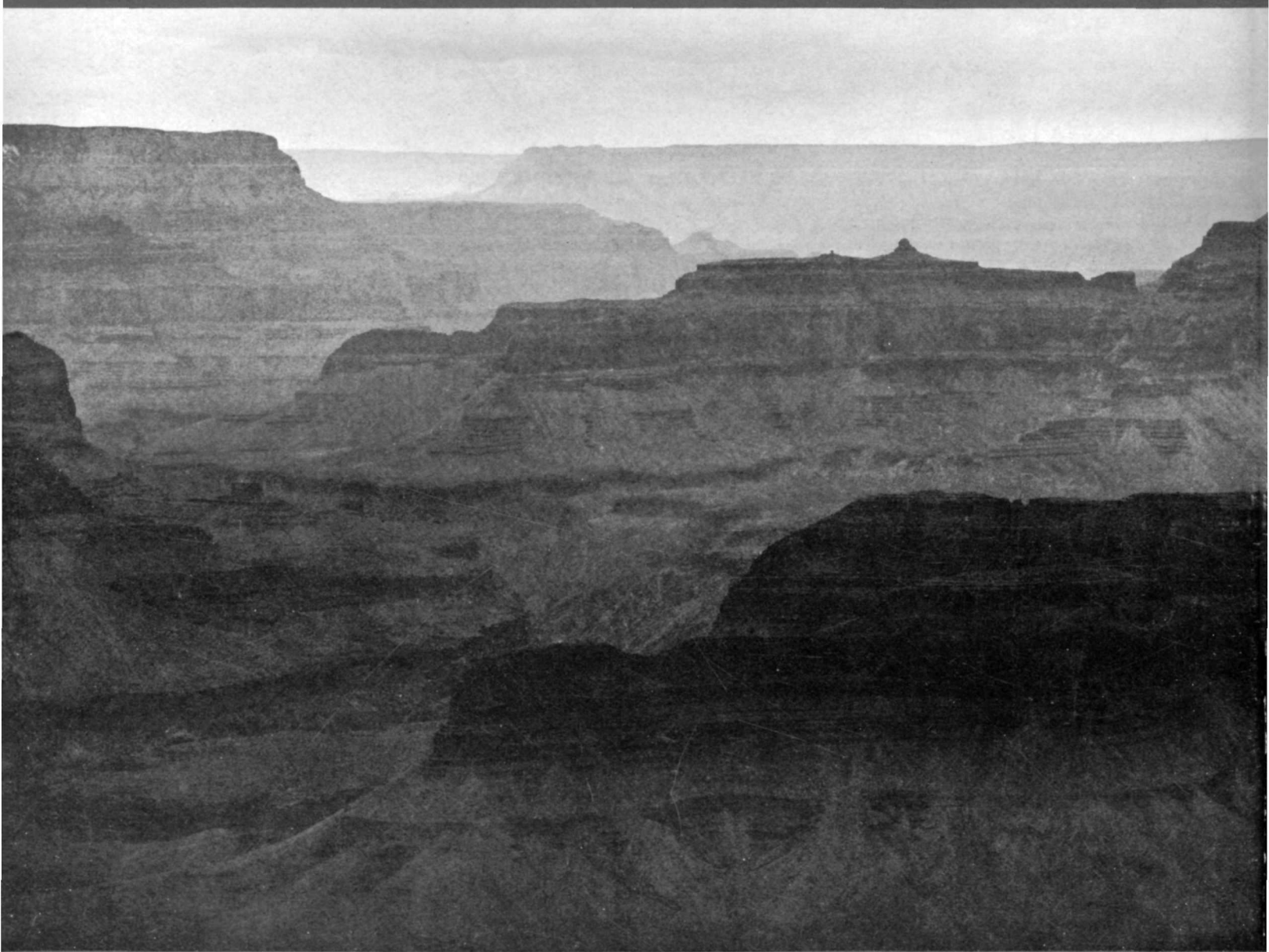
But it has really looked for quite a long time as if the initiative in these matters would never come from the government. It may have to come from the concessioners, the local communities outside the public lands, or some of the well-financed national recreation chains.

AS IT HAPPENS, Rocky Mountain National Park presents interesting opportunities. The Trail Ridge Road is the main traffic route east and west, but other highways are available around the park. Most of the travel on this road is dead-end; it returns the way it came, and does not go all the way across. As more and more people come to the park by rail or bus, and travel within the park by minibus, public sentiment will grow for phasing out automobile traffic on the main road.

In some ways the situation is similar to that in Great Smoky Mountains National Park, where the Park Service plans a special study. Here a single transmountain highway connects recreation communities east and west. Another cross-mountain road has been proposed, but vigorous protests have deferred its construction. An adequate regional plan, to which the Federal Highway Administration should be obliged to contribute, would include highways to carry commercial traffic around the park. An internal bus system can then supplant the private car, protecting people against the traffic.

PUBLIC OPINION has been mounting for a long time in favor of a regional dispersion of visitors and the use of public transportation in and into the parks. The NPCA has been the major advocate for this course of action. The revolution in our national transportation system which will be compelled by the energy crisis could result in easy and inexpensive access to the parks, forests, and other public reservations. The Administration has a great opportunity here to help people get out to these great open spaces and yet protect them from the traffic, and should take advantage of it promptly.

—Anthony Wayne Smith



In recent years our national parks have been increasingly threatened by concessioner developments. Concessioners hold powerful contracts—often for twenty or thirty years—allowing for multimillion-dollar developments inside our national parks. Park environments are suffering

from abuses caused by such intensive development. Please help us preserve natural values in the national parks by sending your renewal payment today and by sending us the names of friends who will also support this goal.

NATIONAL PARKS AND CONSERVATION ASSOCIATION
1701 Eighteenth Street, N.W., Washington, D.C. 20009