National Parks

May/June 85

Commentary

1984 in Retrospect

Every year brings with it change and new challenges, and 1984 was no exception. NPCA's responses to these changes and challenges, which are described in the annual report section in this issue, are as varied as the challenges themselves.

As more and more people want to use the parks, the ability to care for the people and resources is diminishing. The National Park Service (NPS) has the same number of permanent staff today as it had five years ago. Since then—with the addition of the parks in Alaska—the number of acres in the park system has doubled.

Because the staffing has not increased to meet the demands, the NPS cannot protect the parks against potential abusers. For instance, the hunting lobby and mountain bike groups have targeted the parks as a growth market. NPCA's visitor impact management study, described in the January/February issue of *National Parks* presented our efforts to assist the NPS in fulfilling the mandate of Congress to establish visitor carrying capacities for each park area.

We have also intervened in a lawsuit in order to counter a move by hunting groups to open parks to hunting and trapping, and are awaiting the judge's decision. We have established the National Park Trust, which is now acquiring threatened parklands in Alaska, Maine, Florida, and other areas across the country.

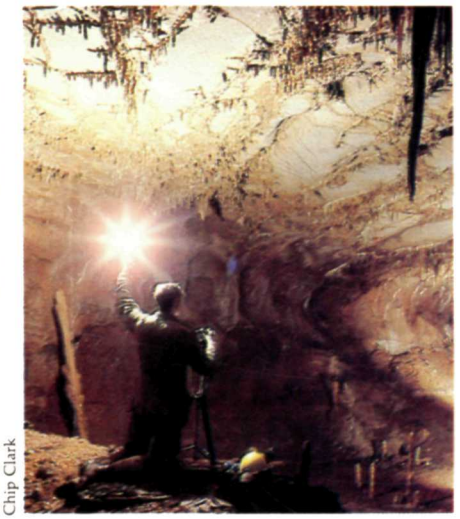
Our work with Congress has expanded as more and more NPCA members have contacted their senators and representatives with particular concerns. We have helped the press alert the American people to park threats, and, NPCA has published an important book, *Greenline Parks,* which describes the concept utilized in Europe and elsewhere to protect landscapes consisting of both private and public lands.

Another area in which we made great strides was in enlisting over 200 local citizens for our National Park Action Program. These people act as eyes and ears for NPCA and alert us to potential problems in particular park areas. We would like to see more of our members involved in this vital program.

These are just a few of our responses to the challenges and all of these steps have been made possible by the support and commitment of the members of the National Parks and Conservation Association. Our Board of Trustees, especially, provided sound advice; and has created a disciplined guide for action in our five-year plan. The plan represents the most effective way that NPCA can respond quickly to our changing world, and has been received with enthusiasm from our members, the NPS, and national leaders.

So it is that we must face more and more challenges each year, but our commitment to protecting the nation's heritage as represented by the National Park System remains strong. A great measure of our success is in the letters from our members and from park visitors, who express their support for the association's work.

It is our pledge to continue to face head on the challenges of acid rain, budget cuts, and the needs of a growing nation and its ever-evolving commitment to what is great and wholesome. With your support.



Chip Clark

Caving, page 22

Editor's Note: Conservation begins with a love of place. Yellowstone, Yosemite, Cape Cod, Chaco, Isle Royale—all of our national parks hold meaning, some stirring of awe for certain people.

These feelings become the basis for activism, for protecting lands, rivers, ruins, and animals. We get caught up in the effort: committees meet, papers are written. But occasionally we must return to the source of our excitement and concern. An obvious point, perhaps, but enjoying what you care about is essential to conservationism.

The national parks make up only 3.4 percent of America's 3.6 million square miles; but they are unmatched for their diversity and beauty. During summer, parks are the place to go; so this issue we offer a calendar of park activities, an introduction to the underground world, and some of the best park bike routes.

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National Parks

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The magazine of the National Parks and Conservation Association

Commentary

Features

Departments

Cover: **Golden Eagle, by W. Perry Conway**
A Colorado sunset illuminates one of America's largest raptors.

Established in 1919, the National Parks and Conservation Association is the only national, nonprofit, membership organization that focuses on defending, promoting, and improving our country's National Park System while educating the public about the parks.

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Feedback

We're interested in what you have to say. Write Feedback, 1701 18th Street, NW, Washington, D.C. 20009. (Letters may be edited for space considerations.)

Cautioning Climbers

Doug Robinson's article "Stranded on Yosemite's Big Wall" [January/February] brought back many vivid memories. As a young park technician in Rocky Mountain National Park, I participated in the rescue of many similarly stranded people (without the help of helicopters) who were stuck on sheer faces of the Front Range in that park.

Without a doubt, Robinson's hints to the novice rock climber should be taken seriously. Rocks are not always what they appear to be. This article should be "must" reading for any amateur rock climber anywhere.

I am thankful you published this article. The National Park Service should have reprints available for anyone who is aspiring to such thrills.

W.D. Thomas, Ph.D.
Lafayette, California

History Loves Company

I read Laura Loomis' article on carrying capacity [January/February]. I look forward to more articles like this and the ones on relic thieves at Richmond. Since the greater percentage of NPS sites are historical, there should be more articles on historical parks.

Sue Hackett
Harrisburg, Pennsylvania

No Place Like Home

The article "To Make a Prairie" [March/April] was great. Carter Revard is still in touch.

As one who grew up in Kansas and Oklahoma, I truly believe there is no place any cleaner, more tranquil, or beautiful as are these Flint Hills and the prairie. Outsiders have missed much.

Jack Wheeler
Parsons, Kansas

The Latest Word

Acid Rain Study Shows Damage To National Parks in the West

We have evidence of acid rain in the East. Numerous studies have shown the problem exists. Now suspicions about acid rain in the West are confirmed by the World Resources Institute's study, *The American West's Acid Rain Test.*

The 18-month study shows the following:

- Yosemite, Rocky Mountain, North Cascades, Mount Rainier, and Sequoia–Kings Canyon are all sensitive to and being affected by acid rain.
- Dry acid deposition is affecting visibility in national parks of the Southwest.
- The ratio of dry to wet acid deposition is 1:1 in the East, but may be as high as 15:1 in the West.
- High alpine areas have little capability of neutralizing acids and may be more sensitive to the problem than eastern areas.
- Waterways in the Colorado Rockies have been acidifying over the last 15 years; and some lakes have experienced temporary total acidification during snow melt or after heavy rains.

The World Resources Institute makes a number of suggestions for the West. They include making acid deposition a criterion for siting new industrial facilities; assessing the acid impacts of major power plants; formulating a comprehensive transportation strategy; and requiring Clean Air Act standards for Arizona's copper smelters.

Californian Is Frontrunner For NPS Director

At this writing, William Penn Mott, Jr., is a frontrunner among those recommended for director of the NPS. Mott, who has experience in the NPS, was director of California's state park system during President Reagan's tenure as governor of the state. A recreation leader, Mott has worked with parks since 1933.

Yellowstone Warns Of Encounters With Park Bears

During the height of the 1984 tourist season, one person was killed and four were injured in encounters with Yellowstone bears. This year National Park Service (NPS) staff at Yellowstone are planning an even more intense public information campaign so that neither humans nor bears are injured.

These unfortunate incidents occurred even though the NPS was more vigilant than ever. Last year, rangers handed out 330 citations and more than 400 written warnings, and sensitive backcountry areas were closed to visitors.

The NPS urges backpackers and hikers to make noise while on the trail; hang food at least ten feet off the ground and far from sleeping areas; avoid sleeping in the same clothes worn while cooking; and inform rangers if you spot a bear or see signs of bear so that the NPS can warn others heading for that area.

Town Wants Part Of Roosevelt Park For Its Airstrip

Since 1947—when Theodore Roosevelt National Park, North Dakota, was created—the town of Medora's airstrip has been a problem. It still is.

The airstrip lies on a slice of Forest Service land that juts into the park. And the town of Medora has a special-use permit for the airstrip.

Medora, however, is also trespassing on approximately 300 feet of parkland at the end of the airstrip. The National Park Service (NPS) would like to clear up this problem, and wants Medora to withdraw its proposal to acquire 12 acres of parkland in order to expand the airstrip into the park.

The issue came to a head once again because of a Forest Service environmental assessment (EA). In their November 1984 EA, the Forest Service proposed transferring the airstrip land to the NPS and revoking Medora's permit.

This plan provoked something of a political storm. Medora and the North Dakota Aeronautics Commission filed an appeal to the Forest Service's proposal. Since then, the Forest Service apparently has decided to let the issue cool.

NPCA believes the Forest Service plan is a good one, and would remove a threat to Theodore Roosevelt National Park.

Bill Would Solve Erosion Problems At Cuyahoga

A potentially far-reaching bill to correct soil erosion problems at Cuyahoga was the subject of a House Interior subcommittee hearing on April 2.

Steven Whitney, NPCA's natural resources coordinator, testified in favor of H.R. 934 and pointed out that soil erosion was among the park system's top ten threats. The National Park Service's 1980 "State of the Parks" report says 102 park areas are affected by erosion.

At Cuyahoga Valley National Recreation Area, which attracts millions of visitors

each year from the surrounding Ohio urban areas, soil erosion affects both the natural resources and the safety of visitors.

Landslides, gulleying, and soil loss create ugly vistas; destroy the habitats of both flora and fauna; and cause river siltation. H.R. 934, introduced by Representative John Seiberling (D-Ohio), would allocate $4.75 million through 1989 to control and correct erosion problems at 34 critical sites.

Ten of these sites are on privately owned lands within park boundaries. Such erosion control on inholdings would be a "first" for the National Park Service and would require the consent of the landowners. The bill would also require the private owners to maintain these improvements for at least ten years.

Besides increasing water clarity and biological productivity of the Cuyahoga River, erosion control would also help reduce siltation problems in Cleveland Harbor.

Poacher Caught Killing Deer At Saratoga

At one time last year there was talk of holding a public hunt at Saratoga National Historical Park, New York, to control the deer population. The National Park Service (NPS) stood its ground against such a plan, and recently backed up its stand when someone shot a park deer.

A veterinarian from a nearby town had hidden in a tree outside the park, and had used a high-powered rifle with a telescopic sight to shoot down the deer.

He was caught dragging the deer from the park; arrested by park rangers; and fined $500 in federal court.

Custer Battlefield Wants to Close Gap in Park

The National Park Service would like to join the two segments of Custer Battlefield National Monument by purchasing a strip of private land that cuts through the monument. Part of this five-mile-wide strip is being eyed for a housing development.

Custer Battlefield Superintendent Jim Court says, "Why do we have to wait until bulldozers are poised on our borders before we save the park?"

The strip's 900 acres would cost $7-$9 million. But park staff say that only half of that acreage needs immediate protection.

They also say the landowners—mostly Crow tribal members—are willing sellers. If the land were purchased for the monument, the landowners would be offered more than fair-market value and would retain grazing privileges.

Interior Secretary Donald Hodel supports the idea—if the money can be raised privately. So far, the Custer Battlefield Preservation Committee, Inc., has raised about $20,000 in small donations from park visitors and Custer buffs.

In another matter, the park is plagued by artifact thieves, who are digging up bullets, arrowheads, and other relics of the Battle of the Little Bighorn. Park staff hope to catch the intruders. But they also hope that the jail terms and stiff fines imposed on artifact poachers at Richmond Battlefield, Virginia, may discourage the Custer thieves.

Proposals for Hydroelectric Dams Threaten Yosemite

Proposals to dam the Merced River, thus threatening Yosemite National Park, have resurfaced. The dams would create hydroelectric power, which would then be sold to the public.

The plan to dam the South Fork just below the park would have devastating effects on the winter range of Yosemite deer, bear, and mountain lion populations. It would also threaten several species of rare and endangered plants, and could decimate Miwok tribal relics and other cultural resources.

The second project would divert water from the main fork of the Merced. This bypass would affect a vital river recreation area and the community of El Portal, which is fast becoming administrative headquarters for the park. The main fork project would also alter the scenic qualities of one of the most popular access routes to Yosemite.

NPCA supports the protection of both park resources and the Merced River system. Currently, momentum is building to designate both branches of the Merced as part of the Wild and Scenic River System.

Such designation would protect the Merced, the park, plants, animals, and archeological resources from these dam threats.

Correction

Regarding "Ruined History," *National Park's* feature on acid damage to cultural resources (March/April 1985), Richard Livingston, EPA Program Area Manager for Materials Effects and Deposition, says the acid deposition problem is "obviously real," but the percentage of damage "varies from place to place."

Spend this Summer in the Parks

Triathalons, rafting contests, traditional music, Civil War pageants, art, lots of good food, and craft fairs . . . . there's something for everyone,

pueblo dancing,

by Sallie Jo Connell

All winter we wished and waited, all spring we anticipated, and now here they finally are—those lazy, crazy, and hopefully not too hazy days of summer. Now the question arises, what to do with those days off, long weekends, and much-needed vacations?

The National Park System offers many fascinating activities and events throughout the summer months. If you're planning a vacation in or near a national park, call ahead to find out about special activities. On these pages we've included a handy calendar highlighting a few of the summer's events offered throughout the country—and how to find out more about them. But this is just a sampling of what summer can be like in the national parks. So enjoy yourself.

May 4

DELAWARE WATER GAP NRA, PENNSYLVANIA

The 3rd Annual Jim Chamberlain Triathalon will be held at the Pocono Environmental Education Center and Peters Valley Craft Village. Individuals and teams compete in canoeing 5.5 miles, running 6.2 miles, and bicycling 12.7 miles. (717) 588-6637

GLEN CANYON NRA, ARIZONA

Bring the family to the dedication ceremony for the new ferry between Halls Crossing and Bullfrog Basin on Lake Powell. Perhaps you can bring a picnic. Then, take a free inaugural ride. The old ferry will be on display. The ceremony takes place on the ramp on the Bullfrog Basin side of the lake. (602) 645-2471

May 4-May 5

FORT SCOTT NATIONAL HISTORIC SITE, KANSAS

Hardtack and coffee, Civil War style: Watch Union Army soldiers set up camp for a weekend of military drills, inspections, pay call, sabre and lance demonstrations. Visit with ladies and the officers of the regiment. On Saturday evening there will be a Civil War music program. If you can't come this weekend, there are regular historical activities throughout the summer. Call for details. (316) 223-0310

KEY: eastern parks—*italics*; midwestern parks—roman; western parks—**bold**

May 5

CUYAHOGA VALLEY NRA, OHIO

Celebrate the coming of spring at the 4th Annual May Day Festival. Learn to dance around the maypole in the traditional manner. There will also be strolling minstrels, face painting, and modern dance to enjoy. (216) 650-4414

May 19

GLEN ECHO PARK, MARYLAND

Hey, kids! The Children's Festival is just for you. There will be clowns, mimes, balloon artists, face painting, and lots more. Performances by kids and for kids are among the pleasures of this festival. (703) 492-6282

June 2

PETER STRAUSS RANCH, SANTA MONICA MOUNTAINS NRA-CALIFORNIA

Enjoy the beautiful costumes, delicate dances, and unique instruments of the Korean Classical Music and Dance Company. The two-hour concert is sponsored by the NPS and the Santa Monica Mountains Conservancy. It is just one in a series of classic and cultural music programs offered here throughout the summer. Call for a full schedule. (213) 888-3440

June 8-June 9

LAKE MEREDITH NRA, TEXAS

Enter the 3rd Annual Charity Bass Classic, a fishing contest sponsored by a local radio station for the benefit of the "Amarillo Make-A-Wish Foundation, Inc." This organization grants terminally ill children a wish of their choice. The tournament is limited to the first 300 entries. There is an entry fee of $50; the registration deadline is May 27, but late entry is permitted with a penalty. All fish are released after being photographed and weighed. (806) 372-6543

June 9

DELAWARE WATER GAP NRA, PENNSYLVANIA

If perseverance and paddling are your specialty, then enter the 24-mile 16th Annual Great Delaware River Raft Race. Ride from Smithfield Beach, through class II and III rapids, to Martins Creek. Anyone can participate, but all rafts must pass safety and construction inspections. Contact: Barbara Gunter (201) 540-2075

June 15-June 16

GOLDEN GATE NRA, CALIFORNIA

Spend a California weekend devoted entirely to getting to know the ways of the Pacific Ocean. The "Festival of the Sea" offers nautical history, craft and skill demonstrations, and sea chanties. (415) 556-0560

July 21-July 23

YOSEMITE NP, CALIFORNIA

Attend Deaf Awareness Days, Yosemite's special programs for the hearing impaired. Activities include group tours, captioned slide shows, and special ranger programs. A certified sign language interpreter is available all summer long as well as a special TTY number for information—(209) 488-4257, or (209) 372-4461.

July 24-July 25

ASSATEAGUE ISLAND NATIONAL SEASHORE, MARYLAND

Watch the famed wild ponies of Assateague as they're rounded up for the swim to Chincoteague where they will be auctioned off, and the money given to charity. (301) 641-1441

July 27-July 28

DELAWARE WATER GAP NRA, PENNSYLVANIA

Attend the 15th Annual Peters Valley Craft Fair where 150 contemporary artists will display and sell their wares or stay a little longer and take a course from nationally known craftsmen. Demonstrations, music, and food will be abundant. (717) 588-6637

August 3-August 4

MESA VERDE NP, COLORADO

The Native American Arts and Crafts Festival will feature native costumes, traditional foods, pueblo-style dancing, and the sale of crafts from many different tribes. (303) 529-4465

August 10-August 11

SHENANDOAH NP, VIRGINIA

Celebrate Hoover Days—Herbert Hoover's birthday—by watching historical films at the visitor center and then hiking to his presidential retreat, Camp Hoover, which will be open for special tours. (703) 999-2243

September 5-September 7

ZION NP, UTAH

The 9th Annual Utah Folklife Festival focuses on the unique traditions of Utah's isolated southwestern pioneers and the Southern Paiute Tribe. Showcased are blacksmithing, leather-braiding, weaving, soapmaking, wart-charming, and other unusual skills as well as Native American songs and dances. (801) 772-3256

September 20-September 22

CUYAHOGA VALLEY NRA, OHIO

End the summer with the 47th Annual National Folklife Festival. Attend a series of workshops by folk and craft artists by some of the best in America. Enjoy folk music concerts Friday and Saturday nights. (216) 650-4414

Sallie Jo Connell is a recreation major at the University of Maryland and an intern at NPCA.

Guides, Passes & Ongoing Events

Some Activities Offered Through the Summer

ASSATEAGUE ISLAND NATIONAL SEASHORE: Rent a rake to catch a tasty Maryland crab. One demonstration per day, June 24-August 25. (301) 641-1441.

CAPE COD NATIONAL SEASHORE, MASSACHUSETTS: "Lord of the Oceans—Master of the Seas," a program about Cape Cod whales, is offered three days a week, June 23-July 31. (617) 349-3785.

ZION NP, UTAH: The Zion Nature Center, operating from June to August, teaches children to see the natural wonders of Zion. (801) 772-3256.

For those with an interest in natural history and cultural studies, many of the national parks offer summer courses. To find more details contact the parks directly for summer schedules.

If You're Coming to Washington This Summer

- The Sylvan Theatre resounds all summer with free concerts. Call (202) 426-6700 for schedule.

- Enjoy the remarkable Smithsonian Folklife Festival on the Mall. Themes this year will be India, music of New Orleans, and cultural conservation. The food is always good. June 26-June 30 and July 3-July 7. (202) 357-2627.

- Wolf Trap Farm Park, Virginia. The symphony, opera, children's programs, and the best talent of screen and stage are showcased at the only national park for the performing arts. For the summer schedule call (703) 938-3810.

Park Tips

Entrance Fees: 1/3 of the park areas charge entrance fees. They range from $1-$3 per private vehicle, 50 cents for bikes.

Campsite Fees: range from $4-$8, or $4-$10 for electrical hookups.

Golden Eagle Passport: only $10 and allows unlimited entrance to any park unit for one year.

Golden Age Passport: free to persons 62 or older and provides free life-time entrance to parks charging entrance fees. Also provides a 50% discount on federal use fees. Proof of age required.

Golden Access Passport: free lifetime entrance permit for permanently disabled or blind persons eligible for federal assistance. You must be able to show proof of disability.

Passes may be obtained at parks charging entrance fees; the Golden Eagle Passport can also be obtained from the NPS, 18th & C Streets N.W., Room 1013, Washington D.C. 20240.

Guides and Maps

The Government Printing Office publishes numerous books on the National Park System. Several of the most helpful are listed here:

National Parks of the United States is a useful fold-out map that shows *all* of the units of the National Park System. The map has major highways marked and facility information is on the back. (These maps are being offered free to all new and renewing NPCA members.) *GPO- #024-005-00771-7 $1.25

For more detailed information, check the NPS *Index of the National Park System and Related Areas*. It has interesting information on historical and natural features of each park and includes statistics on the National Park System. GPO- #024-005-00829-2 $4.75

Camping in the National Park System is a listing of parks and campgrounds. It includes information on seasons, facilities, and limitations on your length of stay. GPO- #024-005-00846-2 $3.50

For the handicapped visitor, NPS publishes *Access National Parks, A Guide for Handicapped Visitors,* listing special facilities, helpful hints as well as general information on each park. GPO- #024-005-00691-5 $6.50

National Parks Visitor Facilities and Services contains interesting information about park lodging, reservations, prices, and details about other concessions like river rafting and horseback riding. Send a check for $4.05 (Kentucky residents add 5% tax) to Conference of National Park Concessioners, Mammoth Cave, KY 42259.

The Complete Guide to America's National Parks will give you ideas on what to do, lodging, prices, and even road and weather information. Send a check for $9.25 (D.C. residents add 5% tax) to National Park Foundation, Dept. PA, Box 57473, Washington, D.C. 20037.

*Pueblo Distribution Center
Pueblo, CO 81003. GPO books available by writing Government Printing Office, Washington, D.C. 20402.

—Deirdre McNulty

Two wheels and an open road

The pleasures and possibilities of bike touring in the parks

by Gene Colling

Bicycle touring is an old and honored tradition in the national parks. As early as 1883 college students were riding primitive bikes with hard-rubber tires and oversized front wheels over the rough terrain of the brand-new and still-uncharted Yellowstone. They were hardy, some would say foolhardy.

These days you don't have to be quite as adventurous, but a bicycle is still an excellent way to see the parks, particularly in spring. Easy to transport and use, a bike puts you next to the sights, sounds, and smells of your surroundings. Many people combine the pleasures of touring with a particular interest such as geology, bird-watching, photography, botany, and hiking.

There are different ways of exploring the parks by bicycle. Many people use bicyles for extended camping tours, carrying everything needed for a week or two in bike packs; or they may use a sag wagon, a vehicle that carries their gear and meets them at prearranged rendezvous points.

Because planning for extended touring is too ambitious to consider here, we offer you the pleasures and intrigues of day-long excursions through interesting country with the prospect of a warm meal and a good bed at the end.

More extended trips require preparation and good advice, but even day trips should be planned. Check with park superintendents for maps, information on weather, gear you will need, routes, as well as suggestions for interesting sights. Good books are available, and most areas have local biking organizations. Bikecentennial is a national group that located and mapped a 4,200-mile trans-American trail that goes through Yellowstone and the Grand Tetons. They offer publications, information, and support. Contact: Bikecentennial, P.O. Box 8308, Missoula, Montana 59817.

GLACIER NATIONAL PARK, WEST GLACIER, MONTANA 59936; 406/888-5441

Going-to-the-Sun Highway climbs and plunges through rugged alpine scenery. Although hundreds of bicyclists ride this roller coaster, it is recommended only for experienced and fit riders.

For safety reasons, the road between West Glacier and Logan Pass is closed to bicycles between 11:00 a.m. and 4:00 p.m. Since the early morning hours are the best time for riding, there is still enough time to make the climb before the heavy traffic starts to build up. The 14-mile road from Babb, Montana, to Swiftcurrent Lake ends at the stately Many Glaciers Hotel. This elegant, historic log lodge sits on the lake surrounded by glacier-covered mountains.

YOSEMITE NATIONAL PARK, P.O. BOX 577, YOSEMITE NATIONAL PARK, CALIFORNIA 95389; 209/372-4461

Starting at Yosemite Lodge, a 17-mile loop takes you through geologic wonders. Massive granite domes, including the famed El Capitan, dominate the valley. World-class climbers can often be seen hanging from sheer rock faces. There is a short trail to Bridalveil Falls with a view of water running off hanging cliffs. Across the valley Yosemite Falls plunges 2,425 feet over granite rock, making it one of the highest waterfalls in the world.

At the junction near Sentinel Dome there is a bridge where you can return to Yosemite Lodge after a 12-mile ride, or you can continue another five miles to Curry Village. The John Muir Trail—at the top of the loop—leads to Vernal Fall, Emerald Pool, and Nevada Fall.

The terrain is either flat or gently sloping. Traffic is heavy during the summer, but it moves slowly. The best time to bicycle is mid-April through October.

Riding a bicycle through towering sequoias, past waterfalls and rock domes—in the early morning as the colors shine in the first light—may be as good as it gets.

YELLOWSTONE NATIONAL PARK, WYOMING 82109; 307/344-7381

Most of Yellowstone's sights are easily accessible by bicycle. It is a particularly good place for family touring, although narrow roads can be dangerous for children. The concessions and campgrounds are about 18 miles apart, so you can ride at a leisurely pace.

The best routes run along the Firehole River, past the spectacular geyser basins. A special bicycle path along Old Faithful lets you cruise past the giant geysers and the prismatic hot pools, and there are racks available so you can leave your bike and walk. You can smell the sulphur and hear the gurgling of the hot water. Biking, unlike riding in a car, lets you experience nature with all of your senses.

The easiest, best, and newest road follows Yellowstone Lake and Yellowstone River where mud volca-

noes, sulphur caldrons, and deer, elk, swans, and buffalo can be seen. The remote LaMar Valley in the northeast corner of the park is one of the best places to see a variety of wildlife and get away from the heavier motor traffic.

GRAND TETON NATIONAL PARK, P.O. DRAWER 170, MOOSE, WYOMING 83012; 307/733-2880

Yellowstone's southern neighbor is a haven for adventurers. If your impulse is to climb, the Tetons offer excitement for beginners and experts. For bicyclists, the Tetons offer some of the most stunning scenery and a chance for a good look at moose, deer, elk, and beaver.

Jackson and Jenny lakes reflect the massive Teton range that soars skyward from the water's edge. It's a scene that is irresistible to shutterbugs and artists—actually, to any nature lover. The famous Teton marshes documented in Walt Disney films are located west of Jackson Lake Lodge and along the Moose-Wilson Road. Beavers still thrive there, the original reason French trappers first came here and gave their imaginative name to the rocky peaks.

The one-way road next to Jenny Lake is a bicyclist's dream. The smell of pine, the green-blue water, and the craggy peaks hanging above you in the sunshine will make an indelible impression.

The Tetons are at an 8,000-foot elevation, so even midsummer mornings can be quite chilly. It is usually too cold to bike except in the summer and early fall.

GREAT SMOKY MOUNTAINS NATIONAL PARK, GATLINBURG, TENNESSEE 37738; 615/436-5615

The name makes you think of rugged mountain pioneers, bluegrass music, and a kaleidoscope of summer and autumn colors, and you can still find them, or at least some of their history, along the Cades Cove loop within the park. The 11-mile ride takes you over gentle biking terrain.

Settlers came to this area in the early 1800s and their history is kept alive through restored cabins and museums. Near the start of the loop you'll come to a cabin built in 1818 by John Oliver, who was the first white settler. Farther down the road, a half-mile turnoff takes you to the Primitive Baptist Church and cemetery. The grave markers reflect the struggles and triumphs faced by the early settlers.

Halfway through the loop, stop at the John P. Cable Open Air Museum to browse through an operating corn mill, a blacksmith shop, and pioneer buildings. As you ride past these historic sites you will be amazed by the variety of the plant life in the area. You may want to carry tree and wildflower field guides so that you can identify what you are seeing.

Eleven miles isn't far to ride on a bicycle, but in the Cades Cove area it's a good idea to start early, stop often, and soak up the history and scenery.

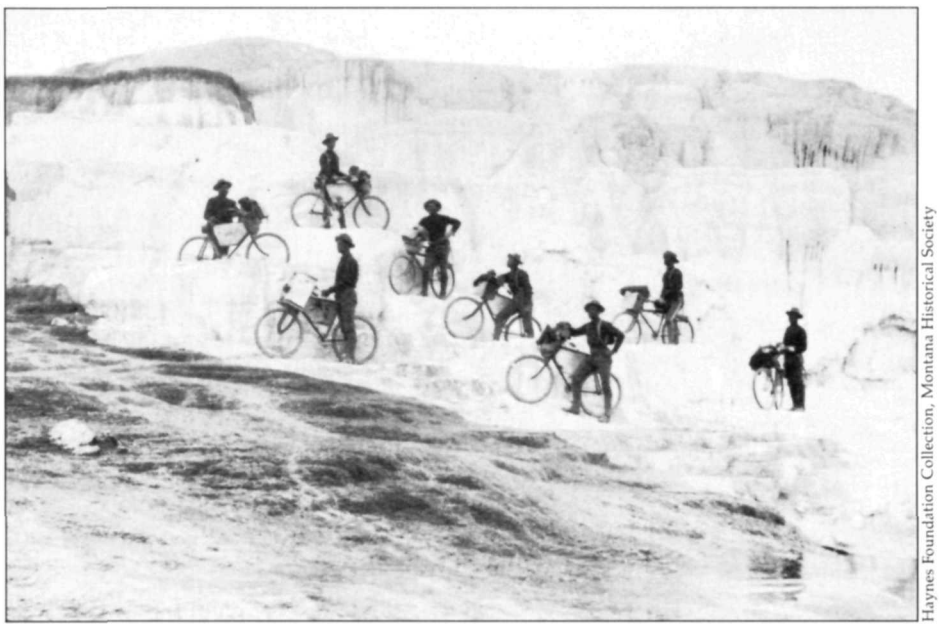
EVERGLADES NATIONAL PARK, P.O. BOX 279, HOMESTEAD, FLORIDA 33030; 305/247-6211

The place is alive with creatures—they fly, swim, run, crawl, wiggle, hop, and slither. The Everglades also has something irresistible to bicyclists—a pancake flat 39-mile road through the middle of it.

Don't forget to take your guidebooks, binoculars, and camera to identify, watch, and photograph the alligators, crocodiles, herons, bitterns, exotic butterflies, and half-foot-long grasshoppers, to name a few. The visitor center at the park entrance offers a good introduction to what you will see.

The Gumbo-Limbo Trail offers exotic vegetation that includes a jungle of strangler fig, mahogany, wild poinsettias, and, of course, the gumbo-limbo trees. The Anhinga Trail is an intriguing pathway to unusual wildlife, like the anhinga bird—commonly called the water turkey or snakebird—and the manatee, the homely water mammal that early sailors mistook for mermaids.

You can ride as far as your fitness and interest dictate. The best bicycling time is during February and March when the weather is good and bugs are fewest, although the traffic can be heavy. Beware: it rains a lot from June through September, which is hurricane season—another reason to make this an ideal winter trip.



Haynes Foundation Collection, Montana Historical Society

In 1896, the 25th Infantry Bicycle Corps made the first tour of Yellowstone on safety bikes to see if the bicycle could replace the horse cavalry.

Gene Colling is a wildlife biologist who has spent over a decade biking in the parks. He most recently wrote The Bicyclist's Guide to Yellowstone National Park; *Falcon Press, P.O. Box 279, Billings, Montana 59103.*

This bike can go anywhere

That's what worries wilderness lovers

by Amy Meyer

The two men I met on mountain bikes along the broad ridgetop trail at Point Reyes National Seashore caused me no problem at the time. But another hiker wrote to the park superintendent asking him to "please get those bicycles off the trails. You take your life in your hands trying to walk a trail."

While sales of mountain bikes are increasing monthly, park superintendents across the nation are seeking guidance. They could learn much from the hikers who roam the 150 miles of trails at Point Reyes.

This national seashore, which lies in Marin County just north of San Francisco along the California coast, probably has seen more mountain bikes than any other park area. And the decision on mountain bikes made at Point Reyes may be the bellwether of how this and other new forms of recreation are treated throughout the National Park System and the Wilderness Preservation System.

The fat-tired bicycles have been used on park trails around San Francisco for five years. Some locals claim they were invented here by biking enthusiasts who began experimenting on klunkers, eventually turning them into lightweight, multigeared sports equipment with broad public appeal.

Along Point Reyes' beaches and coastal hills, mountain bikes have been halted at the edge of designated wilderness. And that is where battle lines now are drawn.

YOU CAN WRECK a good ten-speed at Point Reyes. But for years visitors have laboriously pedaled their balloon-tired or three-speed bikes along the park's ranch roads, including a few within the 25,000 acres designated as wilderness in 1976.

No one fussed until the advent of the mountain bicycle. When these cyclists moved into steeper portions of the park, other visitors were often startled by bikers who unexpectedly whizzed down steep trails or swooped around blind corners. To the gentle hiker or birdwatcher, these bikers seem more closely related to motorcyclists.

The hikers find bikes too mechanized for wilderness use, and they point to the section of the Wilderness Act that reads:

> " . . . there shall be no permanent road within any wilderness area . . . and except as necessary to meet minimum requirements for the administration of the area . . . there shall be no temporary road, no use of motor vehicles, motorized equipment or motorboats, no landing of aircraft, no other form of mechanical transport, and no structure or installation within any such area."

In August 1984, J. Thomas Ritter, the acting associate director for park operations, clarified National Park Service (NPS) policy. Referring to a section of the United States Code, he stated the bicycle is considered "a mechanical form of transport . . . prohibited . . . from being used in any designated wilderness area within the National Park System."

Ritter's decision to keep bikes out of park wilderness segmented popular loop trails at Point Reyes that had been used by cyclists. Even though 59 miles of trail and 45 miles of road remained open to bicycles, several dozen mountain bikers protested at a meeting of the Golden Gate National Recreation Area (GGNRA) Advisory Commission that serves both Golden Gate and Point Reyes.

IT IS IRONIC that the mountain bike conflict should erupt in Marin. On the western edge of an urban region of 5.5 million people, it is one of this nation's most generously park-endowed counties.

Although 25,000 acres of parkland are designated as wilderness, cyclists may ride through at least 110,000 acres of national and local parklands.

The GGNRA Advisory Commission asked Russell Dickenson, then director of the NPS, for help. The commission wanted the Interior Department Solicitor's Office to check whether a bicycle ought to be considered "a mechanical form of transport." In other words, they wanted to know if the solicitor backed Ritter's decision.

Bikers, on the other hand, thought the Special Provision clause of the Wilderness Act might protect uses that already were established.

Dickenson requested recommendations from the advisory commission. But he gave no advice from the solicitor, whose legal opinion could help sort out the situation.

At a February 5, 1985, commission meeting, the Administration's lack of decision caused advisory commissioners to storm: "What are we doing? Even if we come to some agreement, we have no assurance the solicitor won't overturn it."

Marin Conservation League Presi-

dent Peter Behr said to the commissioners, "The folly of it is that you're being used as cats-paws by fault of the solicitor. You're going to affect, in no modest way, a national question."

The advisory commission was faced with two interconnected problems: how to manage mountain bikes on the local park level and how to deal with the bikes and wilderness areas, which is indeed a national question.

The commissioners recommended that bike trails be designated in nonwilderness areas of Point Reyes and Golden Gate. To make trail use safer and to protect against erosion, they also advised that park management should distinguish level, broad trails with good visibility from steep, twisting trails.

The superintendent at Point Reyes had pointed out that he had 30 percent less staff in 1984 than he did in 1980. So, the commissioners also recommended setting up stiles and squeeze gates in order to block thrill-seekers who deliberately look for the challenges of remote, steep—and environmentally sensitive—trails.

A greater question at commission hearings was whether allowing mountain bikes in wilderness violated the Wilderness Act. Conservationists made it clear that they consider bicycles to be inconsistent with wilderness.

Not so, said Glenn Odell, president of the National Off-Road Bicycle Association, who came to the hearing from his home in southern California. He said he favored decision-making at the local level; said cyclists consider themselves to be "members of the trail family"; and asked for "compromise."

William Majoue

Mountain bikes—hybrids of ten-speeds and klunkers—are making inroads at Point Reyes and are threatening wilderness areas.

Conservationists stand by their interpretation of the law. They say that the Wilderness Act calls for "outstanding opportunities for solitude or a primitive and unconfined type of recreation." They call bicycles "urban paraphernalia" and bicycling a preemptive use of wilderness.

It took eight years for Congress to pass the Wilderness Act. Any changes in the act would have to proceed in the same way—through Congress. And any change to permit bicycles would be staunchly opposed by the nation's environmental organizations.

If, for example, mountain bikes were to be allowed on corridors through wilderness, that would require a congressionally legislated boundary change. Since 1964, when the Wilderness Act became law, more than 400 wilderness units have been established. Only two boundary changes have been made—to rectify errors in the original boundary descriptions.

A boundary change at Point Reyes would be viewed as a precedent to accommodate mountain bikes elsewhere.

From time to time we are going to see new recreational devices. Hang gliders, ultralights, and mountain bikes are just the latest inventions to please or vex park visitors. Their presence, however, demands enlightened management, whether or not wilderness is involved.

So far, the issue is confined to Point Reyes National Seashore. But the bikes are beginning to arrive at Yosemite. The staff at Santa Monica Mountains National Recreation Area has seen a few. And mountain bikers can be found in areas around Rocky Mountain National Park.

The mountain bike issue is a national one, and it must be treated as such.

Amy Meyer is cochair of People for a Golden Gate National Recreation Area. She is also an NPCA National Park Action Program representative.

"Tower Falls," from the Buffalo Bill Historical Center collection; Cody, Wyoming

"The Castle Geyser, Fire Hole Basin"

Illuminating Yellowstone

By Judith Freeman

Sometimes, with all the nature documentaries, color magazines, and vacation snapshots, we become jaded. We forget that, at one time, the natural terrain of this country was news—in the truest sense. Only explorers who had been to the frontier knew anything about it, and often their tales were considered too strange to be true. But there were others whose reports changed history.

Such a man was the artist Thomas Moran. He went on an expedition to Yellowstone and captured a vision that he translated into watercolors and sketches. His paintings had such an impact that he has been credited with creating the public support that made Yellowstone our first national park.

Recently, the National Gallery in Washington, D.C., presented an exhibition of his work, most of it seldom seen outside its home, the Thomas Gilcrease Museum in Tulsa, Oklahoma. Here, we invite you to look at the ancient Yellowstone.

"It is impossible to do justice to the physical phenomena of this valley by any description, however vivid. It is only through the eye that the mind can form an adequate conception of their beauty and grandeur."

—Ferdinand V. Hayden, 1872

In 1871, the year of the first scientific expedition to Yellowstone, Thomas Moran was a young artist trying to make a living in Philadelphia as a magazine illustrator. As a student he had been to Europe to study the masters, particularly the English illuminist, J.W. Turner, known for his radiant paintings of light and water.

And, like many young American artists, he was intrigued by the aesthetic ideas of John Ruskin—a fascination with color, light, and detail combined with a romanticism that saw nature as spiritually uplifting, not just wildness to be tamed.

To Nathaniel Langford, one of Yellowstone's first explorers, Moran must have seemed the perfect person to illustrate his article on Yellowstone for *Scribner's Monthly*.

Langford had led the first "official" expedition into that territory, and he, unlike most of his predecessors, was anxious to publicize his findings. Many earlier explorers had refused to tell of their adventures for fear of losing their reputations. This hesitancy was not completely unfounded; Charles Cook, a leader of an 1869 expedition, sent an article to *Lippincott's* magazine describing the geysers and boiling mud pots there. He was sent a rejection slip that said, "Thank you, but we do not print fiction."

But Langford was believed. He had been an early settler in the Montana territory and had a reputation strong enough to stanch any questions. He had his own reasons for wanting to publicize Yellowstone. He had been given a charter from the Montana legislature to run a stage and telegraph line between Virginia City and the Yellowstone River. In addition, he had ties with the Northern Pacific railroad—which had just received a land grant near the Yellowstone area.

National Archives

Thomas Moran (center) looks like a hardened explorer in this archival photograph; but, on his first trip, he had to put a pillow on his saddle. The Ute Indian boy served as a frontier scout.

Langford went on an extended speaking tour, and his article, "The Wonders of the Yellowstone," illustrated by Thomas Moran, was published in *Scribner's*, and sent to the influential in government and business. Moran's work gained a lot of attention in a short time.

Today, it is difficult to appreciate how powerful magazines were then. Most of the important issues of the day were debated in them, and editors used their publications to create public support for political projects.

Coverage was particularly sought by both the protectors and developers of the American West. The Grand Canyon had its champion in George Horace Lorimer, editor of the *Saturday Evening Post.* Stephen Mather, no fool, took an expedition of artists and journalists, including Gilbert Grosvenor of *National Geographic*, to visit Sequoia and Yosemite. In 1916, immediately following the trip, President Wilson established the National Park Service. Glacier, Yosemite, Grand Canyon and Yellowstone became parks through the support of art, photography, and magazines. And rightly so, because it was only through magazines that the public was able to explore their new country. Americans craved news of the West.

In 1869, the East and West had been linked by railroad, and the U.S. Geological Survey was founded to locate, study, and make recommendations on how frontier land and its resources should be used. In 1871, explorer-scientist Ferdinand V. Hayden led another expedition into Yellowstone. This time Moran (at the request of officials of the Northern Pacific railroad) went along.

Moran, a supreme colorist, was the appropriate painter for Yellowstone, because color is this region's most impressive characteristic. He also understood the effect of light on color and the way high altitudes give an edge to the outlines of trees, rocks, and lakes.

When Moran returned to the East in mid-August he began to work from his field sketches, and probably from photographs. He painted a huge oil that hung for decades in the lobby of the Senate and was often credited for softening the legislators' hearts, so that they were more willing to protect western lands.

He, Hayden, and photographer William Henry Jackson spent the winter promoting a bill in Congress to make Yellowstone a national park, using Moran's paintings and Jackson's photographs as "visual evidence." Yellowstone was named our first national park on March 1, 1872.

Judith Freeman is associate editor for National Parks *magazine.*

A Fierce Spirit

Golden eagles teach a wildness that knows no fear

by Paul Schullery

Erwin A. Bauer

AS THE EAGLE FLIES it is more than 150 miles west from Yellowstone to the Sweetwater basin in southwestern Montana. It is ranch country, where the only people wearing cowboy hats are cowboys. There are a number of sheep ranches in the area, though fewer than there once were, including several within an hour of Dillon. In the early seventies the ranchers over there complained loudly that golden eagles were killing their sheep. Specifically, they claimed that they were losing many new lambs and young-of-the-year.

Now, some nature magazines—and many right-thinking bird-watchers—will insist that eagles do not kill sheep; that ranchers

who make these claims are only looking for a way to get somebody, preferably the government, to take blame for (and thereupon subsidize) losses due to winterkill, disease, or coyote depredation. But there's no doubt about it: eagles kill lambs. The evidence, everything from autopsy to photographs to eye-witnesses, is simply concrete.

And why not? Eagles eat small animals, and they hunt them from the sky. One small animal must seem as edible as another, and the sheep are generally too stupid to even run away. Why chase squirrels and rockchucks when nice fat lambs just stand there waiting to be served up? Eagles are too practical to avoid such easy food just because some writer with a whale on his T-shirt says they don't like mutton.

Of course the ranchers wanted to shoot some eagles, but they were thoughtful enough to ask permission first, which is more than many people have done. They didn't get it, but the U.S. Fish and Wildlife Service people in Montana came up with an idea. They wondered if maybe the eagles could be caught and moved somewhere else.

The eagles in question were young ones, full size but not mated. The sheep country didn't have many good nesting sites, so there weren't any resident eagles to kick the newcomers out. The country did have some great coulees, though, and these generated just the kind of thermals that the eagles could stretch out across and ride with ease as they selected a tasty lamb from the flocks below.

Transplanting seemed like a good idea for a number of reasons. For one, killing an eagle is a legal nightmare, and killing several dozen would have been tough even for the agency that protects them to justify. People are really touchy about eagles.

For another, there was reason to hope that transplanted eagles might not come back; that if they were dumped into some reasonably good game country they might "bend" their migration route in subsequent years and not bother with the sheep any more.

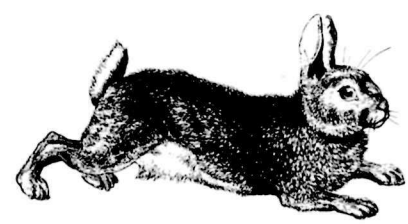
For another, after trying a few other places that didn't work well for one reason or another, they discovered that Yellowstone Park actually wanted eagles. Park records suggested that there used to be more eagles here than there are now; perhaps they stopped frequenting the area when the park service was keeping the elk population down by killing a certain number each year, thereby reducing carrion levels for scavengers like the eagles.

Norton Miner, Montana State Supervisor for Animal Damage Control, U.S. Fish and Wildlife Service, was in charge of the transplants. Norton, a veteran of many years' experience in assorted wildlife management assignments, is a large, rugged, permanently tanned man with a ready smile and obvious professionalism. He is one of the very few men I've met who looks as if he deserves to wear his cowboy hat.

Every few weeks Norton and his wife would load up their horse trailer with eagles (anywhere from seven to twenty-five or more), each in a large wooden crate, and drive over to Yellowstone, where park biologists met them and helped attach wing tags (temporary, for short-term sightings) and leg bands (permanent, to trace movements from year to year of recaptured birds) to the birds as they were being uncrated and released.

The project went on for the rest of the seventies; it wasn't terribly successful, but it didn't hurt and it provided a lot of useful information (both on handling eagles and on eagle movements) for other studies. At the same time it was enormously appreciated by a few of us who managed to convince someone that we should come along to help out at the releases.

What struck me most about the eagles was



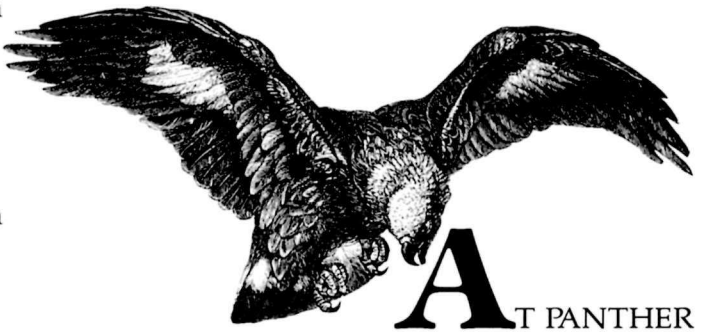
their calm. They were trapped with old coyote traps whose jaws were heavily padded. Four traps were placed under or near a sheep or marmot carcass, and the birds walked into them with little suspicion.

Then, when you would expect any wild animal to struggle violently, the eagle would quietly look down at the trap like a man who has discovered something unpleasant on his shoe. They might clump around a bit (like a kid with a loose roller skate), but remained quiet when the trapper arrived, walked up, and picked them up by the feet to release the trap. The eagles were taken to a holding shed, a log eagle coop, where they were fed and watered until enough had been collected to justify a trip to the park.

I am sure there are logical reasons for the eagles' taking it so calmly, something in their makeup that gave them the sense not to struggle, but to me it was a powerful expression of their wildness. I turned it into a lesson for myself about how wild an animal can be, and decided that the eagles were simply so wild—so far beyond our capacity to affect their sense of independence, even if we domesticated them—that captivity wasn't that big an issue with them.

They seemed ready to wait for whatever happened next. After watching a few of them be handled and released, my respect for this spiritual freedom that I had hypothesized deepened. When you get up close to an eagle, and he looks right through you with those magnificent dark eyes, it's easy to imagine a wildness so fiercely remote that it can only be native to a dimension you have not visited.

Several release sites were tried in Yellowstone, usually on some large open flat. Most were not really suitable for the birds, who are accustomed to landing and taking off from elevated perches. Being tossed into the air by a ranger isn't the same thing. Quite often the bird would fly only a few feet, then land and look back as if to say, "Do you feel as silly about that as I do?" Others would whip those huge wings as strongly as they could, beating a head-high course across the flats, wing tips grazing the sagebrush until there was speed enough to climb.



AT PANTHER Creek one poor unfortunate did a hard left as he was tossed, and glided hopelessly into the little creek. He floated, wings spread across the water and flopping weakly, until he washed ashore on the far bank. He climbed up the bank to a low rock perch where he sat, wings spread to dry, now and then glaring over at us with obvious disappointment. "The releases went well," we reported later, "except that Ted threw one into the river."

Eventually a better location was found, right above the confluence of the Lamar River and Soda Butte Creek. Soda Butte Creek runs west through a small flat-bottomed valley with high peaks rising on both sides. On the north side there is a considerable shoulder, a flat shelf a couple of hundred feet above the stream. Wind currents come up the valley from the Lamar valley to the west, and they eddy and climb this shoulder, providing a convenient series of updrafts into which eagles can be successfully launched.

One June afternoon Norton pulled in with nineteen eagles in his trailer. Several other cars, containing staff biologists and rangers, were close behind, and soon Norton and the others were unpacking the birds.

Each was removed from its plywood box and carried by the feet to a makeshift bench, where tags were attached. Most were calm, even when tilted (like people, an eagle will react by grabbing something if it is suddenly thrown sideways, so it is wise to keep the talons out of range if you decide to turn the bird over), but one panicked while being removed from its

crate and clamped a talon onto the wooden frame. Norton had to use vise grips to unlock the talon from its frozen hold.

When they're being worked on at the bench, the eagles usually lie quiet; one pecked at a nearby arm, and a cowboy hat was put over its head to quiet it. Even lying on their backs they retain the dignity of their kind. The eyes keep that impenetrable distance and return your gaze almost without seeming to notice you.

The releases moved quickly that day. At one point I walked over to Doug Houston, who was looking out over the valley at the eagle circus; there were eagles in the trees, eagles down along the river, eagles on the cliffs, and eagles in the air. We stood watching for a moment, then, as if he'd been working on the speculation for some time, he said, "You know, I wonder what the ground squirrels must be thinking right now?"

I made sure I took a turn or two with the eagles. Taking one from his crate, Norton handed it to me. "Hold onto his legs up high, on the feathers, with your right hand. Put your left hand up here, under his chest."

My right fist closed easily around the eagle's upper legs, and his talons hung loosely below. As his weight settled onto the flat of my left hand—that buoyant firmness only birds seem to have—the rapid tapping of his heart was passed from flesh to feather to flesh. The beat seemed frightened and fast, but birds, even big ones, have much higher gearing than people. He seemed calm enough otherwise, certainly calmer than I.

I was holding him about waist high, with a dusky wing draped over each of my sleeves and his head facing away from me. "Keep those talons out from your belly," cautioned Norton, reminding me of the vise grips as I carried the eagle to the crest of the ridge.

I held him higher then, out from me, with the white-banded tail brushing my right shoulder and the back of his head, golden-hackled and arched gently down the slope, even with my chin. As we reached the crest of the ridge the full updraft hit us, a mild cool breeze. His response was so automatic, so instinctive, that for a moment I was able to know something of his life in the air. Facing into the upwelling current (never did he even try to look around at my face), he automatically opened his wings against it. I held him higher and felt the lift and pull as he arched and banked his wings, canting them first this way, then that, as he tested the possibilities. The faintest movement of a wing tip translated itself into a gentle lift of his weight from my hand; an opposing turn brought his weight back full. The subtlety of those pressures, the potential for sculpting the air with those long flexible wings, was transmitted to my hands, his momentary anchor against the breeze.

THE EAGLE KNEW he was about to be released. I'm sure of it. As I pointed him into the updraft and aimed him out across the valley he knew. And when, after a few seconds of holding him high, I slowly brought him back and down to me, he moved his wings in to as near a launching crouch as my grip allowed. Then, working as one, as if we'd counted "one, two, *three*" in unison, I lowered him yet farther and in one smooth upward motion I lifted him into the wind.

In this chapter from his book, Mountain Time, *Paul Schullery describes an episode that occurred during his time as a ranger and park historian at Yellowstone. Schullery last wrote for* National Parks *on the plight of the grizzly at that national park.*

Paul Schullery

Norton Miner releases an eagle in Yellowstone.

The Value of Eagle Research

The program that Paul Schullery describes here was short-lived; and, like many experiments with wildlife, its results were unclear. In 1982, 24 golden eagles were taken from a Montana sheep ranch and released in Yellowstone National Park.

There is no evidence that this program reduced the number of lambs killed, or increased the number of eagles in the park. That is not to say the program was not worth trying, that it did not give us worthwhile information.

Unlike research on bald eagles, much of the scientific work currently being done on golden eagles concerns how man and bird can exist together rather than how to save a dying breed. In the American West, in fact, the golden eagle population is thriving.

The last surveys report about 17,000 nesting pairs, with a total population of 65,000 to 70,000, says Jim Ruos, migratory nongame bird specialist for the Department of Interior. The 1972 Migratory Bird Treaty Act, which created strong penalties for killing birds of prey, is given credit for the health of the golden eagle population.

Safe eagles become more tolerant of people. They move closer, and we have to learn how to accommodate them. But this success has also brought problems.

So many birds were being electrocuted that power companies, with a notable lack of success, tried to teach eagles to fly around electric poles. Now, more realistically, the companies redesign poles so that the eagle's seven-foot wingspan will not short out the system.

Mining companies are required to budget money for eagle research so that they will not disturb eagle habitats. Sheepmen petition the government to protect their lambs.

Sometimes—in the middle of all the logistics of electric poles, surveys, and nesting habits—it is easy to forget the wildness Paul Schullery learned from these birds.

Paul Schullery

An eagle prepared for transport.

Golden eagles are a world apart. In medieval Europe they were considered so noble that only kings could use them to hunt. Here they exist in 49 of our 50 states (all but Hawaii), a tribute to their tenacity and wiliness—and our own good sense.

Journey to the Underworld

to find albino crayfish, moonmilk crystals, and subterranean rivers

by Jim Glover

In front of us, illumined by dim light, is a gigantic Hershey Kiss. Water spills over it from above and slides down its shiny brown sides. It looks like a fountain in a cartoon movie, but actually it is a cave formation in the Ozark National Scenic Riverways of southern Missouri.

My friend, Mick Sutton, is climbing up the chocolate-colored rock. A headlamp is attached to his yellow hardhat and his threadbare coveralls are held together by a thick layer of mud.

Climbing barefooted so he won't leave any marks, Mick reaches the top and belly-crawls into a hole in another rock formation behind the Kiss. All we can see is a flicker of light from his headlamp. Then we hear his Welsh-accented voice giving us the bad news.

"No go," he shouts. "It ends in a bloody microcrack!"

More than 240 caves permeate the Ozark National Scenic Riverways. Caves are an important resource here, as they are in a number of other national park areas.

Undeveloped caves are among the truest wilderness areas we have. They harbor forms of life seen nowhere else, they make excellent research laboratories, and they are good barometers of environmental quality. And cavers perform valuable services when they map and catalog cave resources.

Yet caves are treated like the tenements of the natural world. Their walls look like bus-station bathrooms, delicate geologic formations are carted off in burlap sacks, cave entrances are used as trash heaps.

Robert and Linda Mitchell

A true troglobite, the crayfish above has adapted exclusively to cave living. Such creatures, as well as troglobite salamanders, beetles, and shrimp, are generally albino and eyeless. At the opposite end of the spectrum are bats and other trogloxenes, who may live within caves but interact with the world above. Right: in a few thousand years, seeping water loaded with calcium carbonate will transform this cave formation, which is located in Carlsbad Caverns National Park. If left undisturbed, the Temple of Doom setting may become Alice's Wonderland.

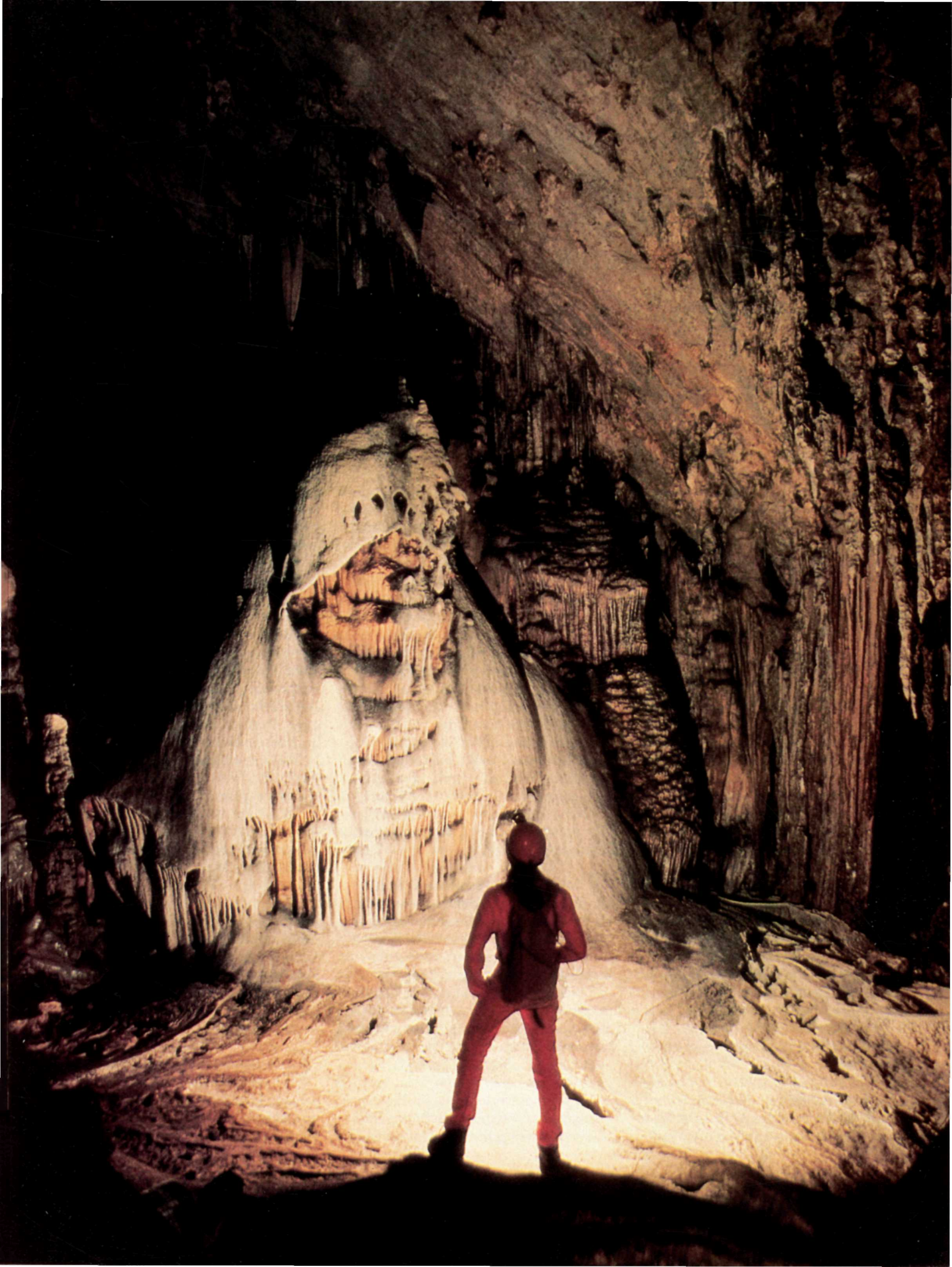
Ron Kerbo, cave specialist at Carlsbad Caverns National Park, puts it well. "For me," he says, "defending a cave is like defending a sunset. In many regions, the very water we drink comes from caves. If we continue to permit their pollution by garbage, chemicals, and sewage, the water supply of millions of people will be ruined."

Equally misunderstood are the 60,000 or so people who crawl through mud, wade through shadowy subterranean rivers, worm through cracks, and rappel into pitch-black holes in search of underground curiosities. They are called spelunkers by everyone else, but they call themselves simply "cavers." Ask them why they cave and they will give you a whole range of answers.

Richard Wallace, of Knoxville, Tennessee, is a professional machinist; but his avocation is cave biology. He has discovered several new species of cave life, including a type of beetle called *Pseudanophthalmus wallacei* in honor of his discovery. Wallace is currently doing a biological census of the caves in Great Smoky Mountains National Park.

"I'm very attracted to the ecology of caves," he says. "It's unique because of the adaptations animals

David and Janet McClurg



Chip Clark

Above: below the surface of Mammoth Cave National Park, rangers take visitors on a stygian boat trip along a buried river—only part of the park's approximately 200 miles of subterranean passageways.

have made. And it's a thrill to go in and find a new species."

Sarah Bishop has a Ph.D. in romance linguistics, and is deputy director of the National Commission on Libraries and Information Science. But she's also president of the Cave Research Foundation, which is doing work in several national park areas, including Mammoth Cave, Carlsbad Caverns, Sequoia–Kings Canyon, and the Buffalo National River.

"I started caving in 1967," Bishop says. "I was ripe for an adventure, and caves are among the few places on earth you can't know about until you get there. An unscaled mountain you can photograph from the air. But a cave you really have to *go* to. Caving is also a demanding physical experience, which is a nice counterpoint to sedentary jobs."

Scott House, a member of our Ozark party, caves because he loves to make maps. He's mapped over 140 caves along the Jacks Fork and Current rivers in the Ozark park.

"I always loved maps," he told me, as he ate a plateful of doughnuts for breakfast one morning. "And I always liked caves, too. When I found out you could map caves, I thought, wow! And I've been mapping them ever since."

Mick crawls out of the hole and backtracks down the Hershey Kiss. He checks to see if he left any marks. Sue Hagan, his wife, shines her headlamp on a tiny scratch; and Mick carefully rubs it out.

We pass through a long, narrow canyon whose steep walls of grey dolomite are mixed with red clay. Water is dripping somewhere ahead. The passage widens and we enter a cavern that looks like a warehouse for cave formations.

Thousands of spears, daggers, fangs, and guillotines hang from the ceiling. Some are curled and pleated, suggesting the stage curtain at the Metropolitan Opera. Stalactites and stalagmites meet to form classic fluted columns. One especially bizarre formation looks like a brown octopus, with water spilling over it into four levels of terraced pools.

"Yep," says Scott, chewing casually on a doughnut, "these caves are still being formed."

The Ozark caves are still developing because they are part of a major karst. Named after a region in Yugoslavia, a karst is a belt of carbonate rock that contains lots of sinkholes, springs, and caves.

Carbonates—limestone, dolomite, and marble—dissolve as water seeps through them, forming a sort of subterranean Swiss cheese. Caves also form in glaciers and lava; but major cave systems are in karst.

Most cave formations—called speleothems—form over thousands of years as water rich in calcium carbonate drips and seeps through karst. Calcite crystals build up, and the result is fabulous underground architecture. The vivid names that cavers give to speleothems suggest their infinite variety: popcorn, moonmilk, soda straws, draperies, boxwork, Christmas trees, fried eggs, flowers, pearls, tobacco leaves, and many more.

Though cave ecosystems are kinetic, they are also unusually stable. Cave temperatures, for instance, remain nearly constant all year round; they stay at the mean annual temperature of the air outside. Because of this stability, caves make great research laboratories.

"They are dynamic, ever-changing," says Kay Rhode, cave management specialist at Wind Cave National Park. "But the process is very slow, so you have a controlled situation. Crystal growth, for example, can be studied without forces like erosion disrupting your work."

We continue through the canyon beside a gurgling stream. In it we see leopard frogs and cave salamanders, who live on food brought in by the water. Far-

Robert and Linda Mitchell

The sound waves produced by the high-pitched squeaks of these Mexican free-tailed bats (left) bounce off cave walls, serving as sonar to guide the bats to the outside where they hunt for insects. Below: this calcite butterfly is one of the most famous cave formations in the world.

Chip Clark

ther on—deep within the cave—we find a series of claw marks dug into a clay-coated wall.

"Bear scratches," says Scott. "It's amazing they came this far in total darkness."

Later we find bear beds hollowed in the ground, and then the bones of a bear who never made it out.

"This was probably a black bear," says Sue. "They've also found bones of the extinct short-faced bear in these caves."

Caves are important paleontological and archeological sites. Deep within another Missouri cave, researchers recently found prints of an extinct pantherlike cat, *Panthera leo atrox,* who was estimated to be 12,000 to 20,000 years old. In the caves of the Guadalupe Escarpment of New Mexico, bones of extinct animals—some as much as 35,000 years old—have been found.

Prehistoric people also left records in caves, such as cave paintings and the remains of fires and clothing. Three thousand to four thousand years ago, Indians worked their way two miles deep into Mammoth Cave and explored other, nearby caves. For light, they used torches of cane, weed stalks, and sticks.

Cave resources, however, are difficult to protect. Pothunters have made off with valuable artifacts from hundreds of caves across the country. At Ozark National Scenic Riverways, people have been seen coming out of caves with a hammer in one hand and a bucketful of speleothems in the other.

Near Carlsbad Caverns, in the Lincoln National Forest, someone dynamited a gate erected at a cave entrance to protect fragile resources. Because karst is so porous, cave waters have been polluted by misplaced sewer lagoons, agricultural runoff, and sinkholes that have been used as community landfills.

Managing and protecting cave resources are about as easy as juggling four carbide headlamps while standing on the brink of Mammoth Cave's Bottomless Pit. To control the problem, several national park areas are developing cave management plans. Most parks that do have underground resources eventually will adopt a version of the following classification system:

- **Unrestricted caves.** Open to all visitors because they are reasonably free of hazards or fragile formations.
- **Restricted caves.** Open only to experienced cavers because they contain safety hazards or fragile formations.
- **Closed caves.** Closed to all use because they are especially fragile or contain endangered species. These animals may be seasonal, such as hibernating Indiana, gray, and big-eared bats.

But for many cave conservationists, the park protection plans are not enough. Caves, they believe, deserve federal recognition.

For several years, attempts have been made to set aside underground wilderness areas in Mammoth Cave and the Guadalupe Escarpment, which includes Carlsbad Caverns, Lincoln National Forest, and Guadalupe Mountains. The 1964 Wilderness Act does not mention caves, but these areas seem to fit the requirements for wilderness.

"I think caves should be considered for wilderness status," says Sarah Bishop. "Many caves are still pristine and remote. And once you're into a cave, your only support system is the three or four other cavers you're with."

Both the National Park Service and the Forest Service have been reluctant to recommend caves for wilderness status. And, although some caves may yet be designated, wilderness protections may not solve the wide variety of cave problems.

So the National Speleological Society (NSS) has proposed a Cave Resources Protection Act. NSS representatives are presently working with Representative Larry Craig (R-Idaho) on the bill.

NPCA supports the concept. T. Destry Jarvis, vice president for conservation policy, says, "Caves deserve public recognition. They are unique resources, similar to archeological resources, which are protected by the Archeological Re-

Left: lights floating beneath the water's surface illumine Mammoth Cave's Crystal Lake, which twists from one underground room through another. Right: photographer Chip Clark said of this recently discovered cave, "It's the kind you dream about—crawling into a hole and having it open up into something like that."

sources Protection Act. Caves merit the same sort of protections."

The NSS says the proposed bill would "give caves and their contents a legal definition, removing the grey areas surrounding their status."

The law would require federal land managers to consider cave protections in land-use plans; would allow information on sensitive caves to be withheld; would exempt speleothems from mining claims; would oblige cavers to be responsible for their own safety; and would allow caving groups to help manage federally owned caves.

After five hours in this otherworldly place, we head for the surface. About 50 yards from the cave entrance, we begin to feel the cold, for it's midwinter and the temperature outside is below freezing. Nearer the entrance, a dense cluster of bats is hanging from the ceiling.

"Probably Indianas," says Scott in a soft voice. "They prefer the cold and hibernate in clusters."

We pass them quickly and quietly. Their energy supply is short, and even a minor disturbance can be fatal to them. We reach the entrance and emerge into the flat light of a winter afternoon. Hinting at what lies inside, the cave entrance is appropriately decorated with fantastic columns of blue and white ice.

But the icicles are only seasonal. They'll be gone in a few weeks.

The Hershey Kiss, the octopus, the Indiana bats, the clean water, the bones of extinct bears—they remain. And they will last as long as we care to let them.

Freelance writer Jim Glover lives in Carbondale, Illinois—near an area rife with caves. At present, he is working on a book about environmentalist Robert Marshall.

Caving in the Parks

Chip Clark

The following national park areas offer interpretive tours and permit some caving. But policies vary, so ask for information before packing your headlamp.

Carlsbad Caverns
3225 National Parks Highway, Carlsbad, N.M. 88220, (505) 885-8884. The largest of Carlsbad Caverns' more than 50 caves has a floor area equal to 14 football fields and is high enough to contain the Capitol Building. Also see Indian cave paintings and migratory bats.

Russell Cave
Route 1, Box 175, Bridgeport, Ala. 35740, (205) 495-2672. One of the few caves rich in archeological resources, Russell Cave preserves a record of more than 8,000 years of prehistoric life.

Lehman Caves
Baker, Nevada 89311, (702) 234-7331. At the foot of Wheeler Peak in eastern Nevada, Lehman Caves presents a spectacle of speleothems. Besides bacon and fried-egg speleothems, the caves contain some of this country's largest and most dramatic shield formations.

Wind Cave
Hot Springs, S.D. 57747, (605) 745-4600. More than 37 miles of underground passageways lead you to chambers named the Garden of Eden and the Dungeon, and you can see frostwork, boxwork, and other delicate, yet intricate, formations.

Mammoth Cave
Mammoth Cave, Ky. 42259, (502) 758-2251. The most famous in the National Park System, this karst has every sort of classic cave feature. Twist your way through Fat Man's Misery and see the dark, subterranean waters of Echo River, home to blind cave fish.

Other parks that contain caves include **Great Smoky Mountains,** Gatlinburg, Tenn. 37738, (615) 436-5615; **Sequoia–Kings Canyon,** Three Rivers, Calif. 93271, (209) 565-3341; **Buffalo National River,** Box 1173, Harrison, Ark. 72601, (501) 741-5443; **Oregon Caves,** Cave Junction, Ore. 97523, (503) 592-2100; **Craters of the Moon,** Box 29, Arco, Idaho 83213, (208) 527-3257; and **Ozark National Scenic Riverways,** Box 490, Van Buren, Mo. 63965, (314) 323-4236.

1984 NPCA Annual Report

Natural Resources

Last year was one of incredible challenges to the integrity of the national parks. For the fourth year in a row, NPCA and others sought passage of legislation that would protect the national parks from external threats.

Although the Senate did not act on the National Park Protection and Resource Management Act, which was passed by the House in 1983, NPCA did work closely with Senator John Chafee (R-R.I.) on his Wildlife and the Parks bill. Chafee's bill would protect park wildlife from external threats to their habitat.

In 1984, NPCA led a major effort to prevent the opening of certain park areas to hunting and commercial trapping. Former Interior Assistant Secretary G. Ray Arnett spent four years trying to open parks to hunting and trapping.

During that time, legislation was introduced in Congress to open 11 park areas to trapping. NPCA fought these moves at every turn. We have prevailed thus far; except that four river units will allow trapping until January 1987, unless halted sooner by the courts.

NPCA also led a legal intervention in a lawsuit brought against the NPS by the National Rifle Association, whose chief executive is now former Assistant Secretary G. Ray Arnett. The Rifle Association's suit attempts to open a number of park areas to hunting and trapping.

Another of the year's efforts centered on a bill that would allow the Army Corps of Engineers to build two huge jetties at North Carolina's Oregon Inlet, which lies between Cape Hatteras National Seashore and Pea Island National Wildlife Refuge. NPCA played a major role in defeating this bill because the jetties would destroy beach ecosystems.

Regarding Alaska, the association strongly opposed regulations that would allow individuals to build private cabins in that state's new parks, and protested other regulations that open transportation corridors through Alaska's parks.

In another Alaskan matter, NPCA supported the NPS's desire to buy out claims and stop mining in the Kantishna Hills area of Denali National Park.

NPCA also supported a land exchange at Cape Krusenstern in Alaska if it is done by legislation. This exchange would remove native inholdings within the monument in return for a block of monument land at the northern boundary.

T. Destry Jarvis

NPCA President Paul Pritchard rebuts rifle club at press conference.

Russell D. Butcher

Destry Jarvis works to waylay a mine threat at Saguaro National Monument.

Concerning Yellowstone, Congress passed an NPCA-supported amendment prohibiting geothermal drilling in Island Park, which contains 488,000 acres of federal lands adjacent to the park's western boundary. However, drilling can still occur on Yellowstone's northern boundary near Mammoth Hot Springs.

Similar threats exist next to Crater Lake where the Forest Service granted exploration permits to geothermal companies. Protests from NPCA and other conservationists resulted in requirements for a public review and a new permit before each phase of development or production could occur.

A few thousand miles farther west, a geothermal company began drilling on an inholding in Hawaii Volcanoes, but was halted by volcanic eruptions and lava flows. NPCA is supporting a land exchange to add this land to the park and thus preclude drilling.

Another serious concern to NPCA is the plight of the threatened population of grizzly bears at Yellowstone. NPCA supported a National Park Service decision to remove the RV campground at Fishing Bridge—which lies in prime grizzly habitat.

A proposal to expand the airport at Theodore Roosevelt National Park would have deleted land from the park and would have caused visual and aural pollution from low-flying planes. NPCA helped convince Congress to stop this project.

Cultural Resources

In 1984, NPCA participated in the First World Conference on Cultural Parks, sponsored by the NPS. Representatives from 37 countries participated in the September conference at Mesa Verde.

NPCA's paper, "Politics: the Essential Element in Preserving Cultural Resources," covered both the advantages and disadvantages of mixing politics and park issues.

NPCA testified in favor of buying the McClintock House for Women's Rights National Historical Park. And, at Rock Creek Park, we opposed efforts to convert Pierce Mill into an art gallery.

NPCA participated in planning and management issues at Chaco Culture, Mound City Group, Fort Sumter, Hopewell Village, and Fredericksburg and Spotsylvania historic parks. The NPCA-supported Mid-Atlantic Regional Council met twice during 1984; and responded to threats at Hopewell Village, Colonial, Richmond, and other parks within the region.

Urban Parks and Recreation

In March 1984, NPCA hosted a conference that focused on national park units located in or near urban areas. The conference, dedicated to the late Congressman Phillip Burton, was attended by conservationists from all parts of the country. Participants focused on a variety of public and private approaches to help improve these park areas.

With NPCA's support, Congress approved the expansion of one of these parks, the Chattahoochee River National Recreation Area, by 500 acres.

The Urban Parks and Recreation Recovery Program, which supports the rehabilitation of existing urban parks, received no funding for Fiscal Year (FY) 1985, despite NPCA's support for the program.

Throughout the year, NPCA backed legislation to establish an Outdoor Recreation Resources Review Commission (ORRRC). The bill failed to pass the House, but the Administration established ORRRC by executive order early in 1985.

Grassroots Activities

The steady growth of NPCA's grassroots programs was highlighted last year by the creation of a local activist organization for Mount Rainier National Park and the organization of a state committee for national parks in Arizona. The new Mount Rainier organization was one of more than 20 additions to our National Park Action Program (NPAP).

Some of the projects undertaken by NPAP representatives in 1984 included taking an inventory of cave life at Great Smokies; opposing the construction of a water tower at Gettysburg; analyzing the potential effects of promoting tourism at Glacier; and developing a plan to expand the boundaries of Congaree Swamp.

Budget and Land Acquisition

NPCA continued to devote extensive efforts to the NPS budget. Fortunately, for the first time in four years, the Administration requested funds—$100 million—for new parkland acquisition.

NPCA supported approximately twice that amount. And Congress (in an FY 1984 supplemental appropriations bill and the regular 1985 appropriations) funded slightly more than the Administration requested. Congress also provided $75 million for the state matching-grant portion of the Land and Water Conservation Fund.

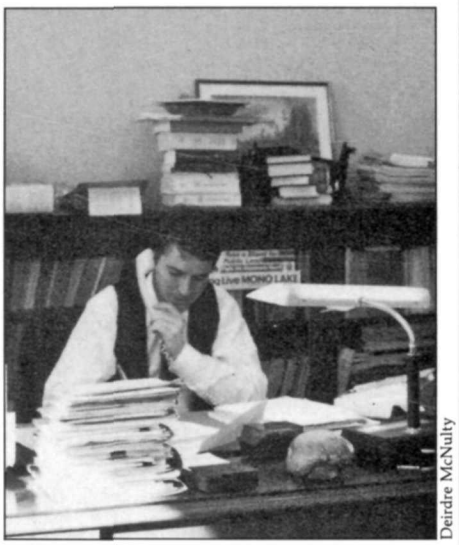
Although funds were appropriated, the NPS continues to spend land acquisition monies very slowly. Approximately 60 percent of the available funds were spent in FY 1984.

In addition, funding for the management of resources—especially natural resources—is not receiving adequate support. This is occurring at a time when the parks are increasingly jeopardized by pollution and other threats.

After nearly two years of work by NPCA and others, Congress enacted legislation that prohibits outside contracting for any NPS work that requires ten or fewer jobs. The Office of Management and Budget Circular A-76, which required contracting out, would have degraded many cultural and natural park resources. The legislation also requires that the NPS develop "maintenance management systems" for each park.

Michele Strutin

Bill Lienesch points out proposed nuke dump site at press conference.



Deirdre McNulty

Bob Pierce works on parkland possibilities for the NP Trust.

National Park Trust

Last year, National Park Trust efforts on the Rio Grande Wild and Scenic River led to meetings with state and federal political leaders from Texas and with landowners along the lower canyons of the river.

Negotiations continued on a land exchange at the New River Gorge National River. The exchange involves 2,400 acres of private land within the park area.

NPCA worked to bring the Tallgrass Prairie National Preserve one step closer to reality. Last year saw the beginning of negotiations with the owner of a large ranch in Oklahoma's Osage Study Area. Up to 60,000 acres are being considered for a preserve.

The Nature Conservancy joined NPCA's efforts to gain an option on the land and to build grassroots support for the tallgrass initiative. NPCA also worked with members of Congress and the Interior Department to create support for introducing tallgrass legislation in the 99th Congress.

Because the NPS cannot purchase any of the many inholdings in Acadia, this national park became the focus of a new Trust acquisition project.

Carrying Capacity

NPCA and a team of scientists from the University of Maryland released a draft analysis of current research and theories on recreational carrying capacity. The team also published a major article on social carrying capacity in *Leisure Science,* a recreation journal. And, at several conferences, it presented graphic displays and explanations on how to manage visitor impacts.

Field Activities: Rocky Mountains

In 1984, the Rocky Mountain Regional Office was formally established to include Utah, Colorado, Wyoming, and Montana.

The regional office initiated a number of general efforts, which included the following:

- Worked to assure strong air quality and visibility protections for Rocky Mountain states;
- Presented NPCA's views and the

"Canyonlands" slide show at a number of regional conferences, including the "Parks in the West" conference;
• Initiated production of the National Parks Education Project, a narrated slide show on threats to the parks.

NPCA worked on a number of critical issues in Utah, foremost among them the proposed nuclear waste dump next to Canyonlands. We continued to fight this plan; joined a lawsuit that challenges the Department of Energy's site selection guidelines; coordinated the Don't Waste Utah campaign; and voiced NPCA's position on the PBS documentary "Nuclear National Park."

We also led the efforts to stop tar sands leasing near Canyonlands, Glen Canyon, and Capitol Reef; worked to assure NPS management authority over grazing in Glen Canyon and other park areas; continued to protest coal leasing and development near Zion and other sensitive areas; presented a strong voice for appropriate tourism as a means of enhancing Utah's economy while protecting the national parks; and taught a seven-week course on park policy and park threats.

In Colorado, NPCA launched a campaign to upgrade Dinosaur National Monument to national park status; supported legislation to expand the boundaries of the Black Canyon of the Gunnison; and testified in favor of park wilderness designations for Rocky Mountain, Dinosaur, and Colorado National Monument.

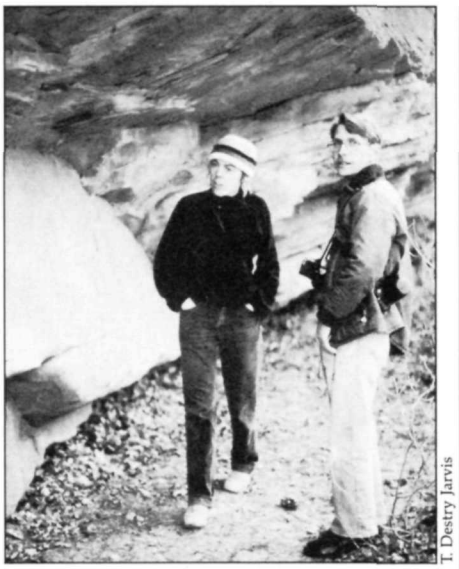
In Wyoming, we supported a ban on geothermal leasing near Yellowstone and continued to advocate nonstructural alternatives to the reconstruction of Jackson Lake Dam in Grand Teton.

In Montana, NPCA worked with our grassroots contacts on a number of issues, including Canada's proposed strip-mining operation near Glacier; proposed oil and gas drilling in grizzly migration routes; and proposed overflights.

Field Activities: Southwest/California

The Southwest/California office of NPCA focused on a wide range of issues in 1984. Negotiations initiated by NPCA resulted in passage of the Arizona Strip wilderness and expansion of Chiricahua National Monument as parts of the Arizona Wilderness Act.

At Grand Canyon, NPCA initiated meetings to resolve concerns over upgrading the scenic road to the park's north entrance; was active in efforts to phase out grazing; and supported a plan



T. Destry Jarvis

Regional reps Terri Martin and Russ Butcher plan strategy at Zion.

Bill Cook

Laura Loomis helps tag a black bear at Great Smoky Mountains.

to reinstitute passenger rail service to the South Rim.

Because of mounting impacts from urbanization and vandalism at Saguaro, NPCA urged for increased protection at that national monument and we held the first meeting of our 25-member Arizona National Parks Committee.

In west Texas, we successfully worked with All American Pipeline Company to shift a proposed crude oil pipeline out of a scenic area adjoining Guadalupe Mountains National Park.

In New Mexico, we organized an archeological tour of two major casas grandes pueblo sites; opposed a proposal to run a powerline through the pristine land of Valles Caldera near Bandelier; and supported Santa Fe Pacific Railroad Company's plan to relinquish mineral interests in Chaco Culture as well as in Grand Canyon.

In Nevada, we continued to push for a Bristlecone Pine National Monument at Wheeler Peak.

In California, NPCA opposed the deletion of land in part of Death Valley; responded to backcountry and stock-use regulations at Sequoia; supported additions to Santa Monica Mountains; continued our opposition to the Forest Service's proposed Myrtle Creek timber sale adjacent to Redwood; and again expressed concerns over a proposed nickel strip mine near Redwood.

Clean Air

In 1984, NPCA was successful in a lawsuit brought against the Environmental Protection Agency to force compliance with the visibility protections of the 1977 Clean Air Act.

In conjunction with our exhibit at the Louisiana World Exposition, NPCA ran a post-card campaign and enlisted several thousand new individuals who will help in the legislative effort to stop acid rain.

Public Education

The NPCA-NPS exhibit on national parks at the Louisiana World Exposition was a major focus last year. The exhibit dramatically illustrated the breadth and depth of the park system, and visitors were informed about NPCA's work.

NPCA published its *Greenline Parks* book last year. The book is a basic source of information for ways of protecting landscapes by using approaches that do not depend on acquisition.

National Parks magazine highlighted a number of 1984's crucial issues, including the future of wilderness, the trapping debate, dam problems, encroachment on grizzly habitat, and the theft of artifacts.

The NPCA slide show on the national parks continued to draw the interest of dozens of groups. And NPCA continued to inform people about the importance of park resources through its awards program. NPCA presented the Freeman-Tilden Award for interpreter of the year; the Conservationist of the Year Award; and the Mather Award for personal commitment to conservation by a resource professional. We also established the Utley-Holland Award to honor outstanding cultural resource managers.

1984 Financial Statements

The National Parks and Conservation Association is pleased to share with its members and supporters another successful year of park protection. Our income was over $2 million, thanks in part to an exceptional corporate grant from ARA Services, Inc., for the construction of a national parks exhibit at the Louisiana World Exposition.

Our membership increased as did the generous contributions from our members. The endowment established in 1983 now contains more than $100,000. We have 22 corporate sponsors—eight more than in 1983—and 11 foundations that provide general program support. Two of our corporate sponsors are providing additional funding for the Marjory Stoneman Douglas and Freeman Tilden awards.

Many foundations and corporations have been generous in their support of specific projects: our successful urban parks conference; the continuation of our grassroots program, the National Park Action Program; our carrying capacity study; the National Park Trust; establishment of a tallgrass prairie preserve; and the National Park System Plan. In addition, we received funding for a new book to be published in June 1985 entitled, *Views of the Green.*

A three-year foundation grant that concluded in 1984 helped us complete our first Five Year Plan. The plan, divided into five program areas, provides an assessment of what we believe the state of the parks will be in 1990, and how NPCA can effectively work for their continued protection.

We could not have achieved such successes without the assistance of you—our members and supporters. Thank you for your concern for our country's great heritage as represented by our national parks.

Balance Sheet

December 31, 1984	Operating Funds	Plant Fund	Endowment Fund	**Total**	1983 Total
			Assets		
Cash	$616,750	$ —	$ 29,469	**$ 646,219**	$453,705
Receivables	13,336	—	—	**13,336**	19,063
Accrued interest receivable	2,619	—	—	**2,619**	590
Inventory	5,150	—	—	**5,150**	3,213
Investments—at book value (Note 1b)*	1,373	—	72,193	**73,566**	163,673
Prepaid expenses	11,149	—	—	**11,149**	18,396
Fixed assets (Note 2)*	—	309,299	—	**309,299**	276,903
Other assets	8,892	—	—	**8,892**	9,482
TOTAL ASSETS	$659,269	$309,299	$101,662	**$1,070,230**	$945,025
			Liabilities and Fund Balances		
Liabilities:					
Accounts payable	$ 21,533	$ —	$ —	**$ 21,533**	$ 13,899
Notes payable (Note 3)	—	489,232	—	**489,232**	492,491
Employees' payroll taxes withheld	2,122	—	—	**2,122**	2,327
Accrued expenses	4,539	—	—	**4,539**	4,557
Security deposit held	2,292	—	—	**2,292**	2,292
Total Liabilities	30,486	489,232	—	**519,718**	515,566
Fund balances (deficit)*	628,783	(179,933)	101,662	**550,512**	429,459
TOTAL LIABILITIES AND FUND BALANCES	$659,269	$309,299	$101,662	**$1,070,230**	$945,025

**See accompanying notes to financial statements.*

Report of Independent Certified Public Accountants

To the Board of Trustees of
National Parks and Conservation Association

We have examined the balance sheet of National Parks and Conservation Association as of December 31, 1984 and 1983 and the related statement of revenue, expenses and changes in fund balances for the years then ended. Our examinations were made in accordance with generally accepted auditing standards and, accordingly, included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion, the financial statements referred to above present fairly the financial position of National Parks and Conservation Association at December 31, 1984 and 1983 and the results of its operations for the years then ended, in conformity with generally accepted accounting principles applied on a consistent basis.

—Thomas Havey & Co.
Washington, D.C.
February 21, 1985

Notes To Financial Statements

Note 1. Summary of Significant Accounting Policies

a. Method of Accounting—Assets, liabilities, income, and expenses are recognized on the accrual basis of accounting.

b. Investments—Investments are carried at cost or at market value on date received from donors. Fair market value at Dec. 31, 1984 and 1983 was approximately $61,619 and $210,741, respectively.

c. Depreciation—Depreciation of fixed assets is computed on the straight-line method at rates calculated to prorate the cost of the applicable assets over their useful lives.

d. Membership Dues—Membership dues are recorded as income in the period received.

Note 2. Fixed Assets

Original cost and accumulated depreciation of fixed assets at December 31, 1984 and 1983 are as follows:

	1984	1983
Land	$ 66,470	$ 66,470
Office building	277,362	268,857
Office furniture and equipment	146,095	103,742
	423,457	372,599
Less: Accumulated depreciation	(180,628)	(162,166)
	242,829	210,433
Fixed assets—depreciated cost	$ 309,299	$ 276,903

The Association's land and office building, located at 1701 18th St., NW, Washington, D.C., is carried at a net depreciated cost of $232,098 at Dec. 31, 1984, based on its purchase price in Nov. 1967. Depreciation charged to operations for years ended Dec. 31, 1984 and 1983 was $18,462 and $10,783, respectively.

Note 3. Note Payable

The note payable at December 31, 1984, consisted of a $489,232 mortgage note payable $6,307 per month, including interest at 14.75%, secured by a deed of trust on the Association's land and building.

Note 4. Pension Plan

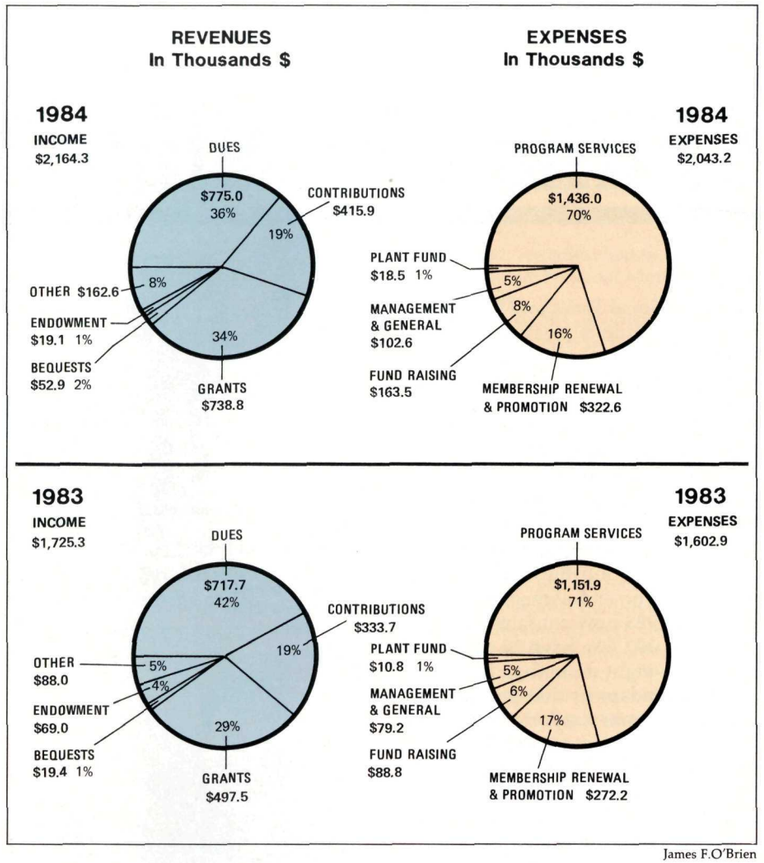
The Association has a noncontributory pension plan covering all full-time employees and it is the Association's policy to fund the cost as it accrues, which was $19,094 and $25,024 for 1984 and 1983, respectively.

Note 5. Transfers

Transfers from unrestricted operating fund to plant fund:	
For purchases of fixed assets	$ 50,858
For principal curtailments on mortgage note	3,259
	$ 54,117
Transfer from endowment fund to unrestricted operating fund (See Note 6)	$ 3,511

Note 6. Endowment Fund

The fund documents provide that the Association is to maintain the "historic dollar value" of the contributions to this fund in accordance with the consumer price index each year. During February of each year income equal to the percentage increase in the consumer price index is to be added to the principal of this fund. In addition, one-half of the remaining income is to be retained in this fund until the principal value reaches the sum of $1 million. The remaining one-half of the income may be used for the Association's general purposes. When the fund reaches $1 million, all of the income may be used for the Association's general purposes.



James F.O'Brien

Statement of Revenue, Expenses, and Changes in Fund Balances

	1984					1983
	Operating Funds		Plant Fund	Endowment Fund	Total	Total
	Unrestricted	Restricted				
Revenue:						
Membership dues (Note 1d)*	$ 775,001	$ —	$ —	$ —	$ 775,001	$ 717,743
Investment income	112,469	—	—	9,503	121,972	60,339
Contributions	415,885	—	—	9,683	425,568	425,082
Bequests	52,871	—	—	—	52,871	19,377
Grants	38,000	700,798	—	—	738,798	465,981
Other operating income	50,142	—	—	—	50,142	36,719
Total revenue	1,444,368	700,798	—	19,186	2,164,352	1,725,241
Expenditures:						
Program services:						
Natural resources	48,034	69,251	1,554	—	118,839	82,846
Cultural resources	47,541	34,491	1,429	—	83,461	70,515
Urban parks & recreation	39,021	45,946	1,093	—	86,060	80,087
Grassroots activities	32,766	45,776	1,311	—	79,853	108,493
NPS budget & land acquisition	42,175	31,263	1,305	—	74,743	60,620
Carrying capacity	32,382	—	696	—	33,078	54,606
Field program	98,364	—	1,939	—	100,303	123,788
Public education:						
Louisiana World Exposition	—	417,618	—	—	417,618	90,006
Other	439,015	12,411	3,295	—	454,721	489,288
Total program services	779,298	656,756	12,622	—	1,448,676	1,160,249
Supporting services:						
Management & general	102,591	—	1,813	—	104,404	79,976
Fund raising	163,527	—	2,018	—	165,545	89,746
Membership development	322,665	—	2,009	—	324,674	272,948
Total supporting services	588,783	—	5,840	—	594,623	442,670
Total expenditures	1,368,081	656,756	18,462	—	2,043,299	1,602,919
Excess (deficiency) of revenue over expenditures	76,287	44,042	(18,462)	19,186	121,053	122,322
Transfers (Note 5)*	(50,606)	—	54,117	(3,511)	—	—
Fund balances at beginning of year	372,004	187,056	(215,588)	85,987	429,459	307,137
Fund balances at end of year	$ 397,685	$231,098	$(179,933)	$ 101,662	$ 550,512	$ 429,459

**See accompanying notes to financial statements.*

Statement of Functional Expenditures

	Program Services									Supporting Services				
								Public Education						
	Natural Resources	Cultural Resources	Urban Parks and Recreation	Grassroots Activities	NPS Budget and Land Acquisition	Carrying Capacity	Field Program	Louisiana Exposition	Other	Management & General	Fund Raising	Membership, Development	1984 Total	1983 Total
Membership solicitations, renewal, maintenance, contribution drive	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ 98,726	$ —	$68,257	$227,923	$ 394,906	$ 308,525
Magazine publishing, related costs	—	—	—	—	—	—	—	—	$160,568	—	—	—	160,568	149,869
Salaries	41,916	38,531	29,470	35,345	35,196	18,768	52,271	—	88,861	48,886	54,412	54,163	497,819	505,097
Payroll taxes	3,166	2,910	2,226	2,670	2,658	1,417	3,948	—	6,712	3,692	4,110	4,091	37,600	7,217
Hospitalization insurance and retirement contribution	5,087	4,676	3,577	4,290	4,271	2,278	6,344	—	10,784	5,933	6,604	6,573	60,417	77,141
Travel	12,427	6,312	20,933	12,205	3,488	1,890	6,384	5,544	8,112	5,243	3,479	310	86,327	67,796
Meetings and receptions	38	1,182	—	—	—	—	—	—	408	3,190	3,190	3,189	11,197	10,221
Publications and reprints	1,289	921	552	—	921	—	—	11,542	8,256	—	—	—	23,481	14,765
Publicity	2,394	1,323	—	—	—	—	—	3,516	2,241	1,121	—	1,120	11,715	22,003
Professional and outside services	9,516	4,840	12,533	3,477	4,340	147	147	33,412	27,727	13,520	147	2,072	111,878	92,225
Office supplies	4,164	3,186	2,054	3,579	2,923	334	941	218	2,776	869	968	963	22,975	16,501
Telephone, telegraph, and delivery expense	4,828	3,870	2,635	3,004	3,707	922	5,911	148	4,799	2,401	2,672	2,660	37,557	34,127
Office postage	199	333	—	995	3,168	—	572	1,307	55	475	475	475	8,054	9,731
Building occupancy expense	3,379	3,106	2,376	2,850	2,837	1,513	4,214	—	7,164	3,941	4,387	4,367	40,134	40,839
Interest expense	6,098	5,605	4,287	5,142	5,120	2,730	7,604	—	12,926	7,111	7,915	7,879	72,417	72,849
Louisiana World Exposition	—	—	—	—	—	—	—	359,807	—	—	—	—	359,807	90,006
Other	23,522	5,916	4,843	5,608	5,429	2,714	10,949	2,124	12,876	7,070	7,870	7,834	96,755	81,435
Depreciation of office furniture and equipment	816	750	574	688	685	365	1,018	—	1,730	952	1,059	1,055	9,692	2,572
TOTAL	$118,839	$83,461	$86,060	$79,853	$74,743	$33,078	$100,303	$417,618	$454,721	$104,404	$165,545	$324,674	$2,043,299	$1,602,919

Images

Cave Photography

by Marjorie Corbett

David and Janet McClurg are a writer/photographer team specializing in cave and outdoor subjects. In their 50s, they have been interested in caves for more than 20 years, and have produced several books on caves, including *Exploring Caves.*

How did you first get interested in caves and cave photography?

We got interested while living in the Dutch West Indies on the Island of Curacao. There are many caves there, and we just started exploring. We came back to the states in 1960, and ended up in San Francisco—not the most ideal place as far as caves go. We didn't get serious about cave photography until the mid-60s. We were concerned about cave conservation, taking only photos and not destroying formations—it's kind of a creed for cavers. And it's very rewarding to come home and see what has been captured on film.

How does cave photography differ from other photography?

Cave photography is different from other kinds of wilderness photography because of the conditions—it is always wet and cold. It is not a particularly friendly place to take pictures.

Good cave photographers have to learn special techniques, but the basics do apply. Cave photography is a team effort, it is unsafe to go alone. Janet is better at selecting sites—she has a better eye. We get together and talk about how to light the subject. But the biggest difference is that you are photographing in total darkness.

How do you create a photo out of total darkness?

Of course, the light from a flash is more than what we see. Janet and I use a small hand-held reflector that uses a M3B bulb made by Honeywell and is found at flea markets. It has a high light output for its size.

D&J McClurg

"Our purpose is to photograph the beauty. Once it is destroyed, it won't come back in your lifetime."

Deciding where your flash goes must be complicated in a cave?

We use several flashes, usually held by several people. Particularly in large rooms, we hold up the carbide lamp in different spots to see what sections of the room will look like with a flash in that position. Of course, the light of a carbide lamp is quite different from what you'll see with a flash.

And you usually want to leave some areas of blackness for effect. There is a little more mystery to the photo that way.

Do you use a long exposure and staggered flashes or simultaneous flashes?

Usually, several photographers will want to shoot, so we have a system. The technique we use most often involves a lightweight tripod that folds down to 12 or 13 inches. You hold the shutter open using a bulb extension, then you get one or two people to move around the room setting off flashes. This allows you to paint the room with a flash here and there, without having to set up simultaneous flashes. We count one, two, three—it's get ready on one, open the lens on two, and start flashes on three. You usually hear somebody say "Did yours go off?" because the photographers can't tell if all the flashes worked.

I've noticed in many of your photos, the people seem almost incandescent?

That is the halo effect from a person holding the light. It is also meant to be a reconstruction of the "moment of discovery."

How do you deal with perspective?

It is difficult to show a realistic perspective in a cave. The characteristic formations can range in size from three inches to three feet. Often, the function of a person in a photograph is to give the perspective of size.

How do you expose for colors?

There are colors—blues and greys and browns that you can miss if you don't light properly. Limestone's colors range from green to orange. Also, light from a carbide lamp is deceptive.

The flash is what tells you the true colors. The biggest problem is light fall-off; you can get a green cast if you don't light enough.

Do you use filters to bring out colors in the rock?

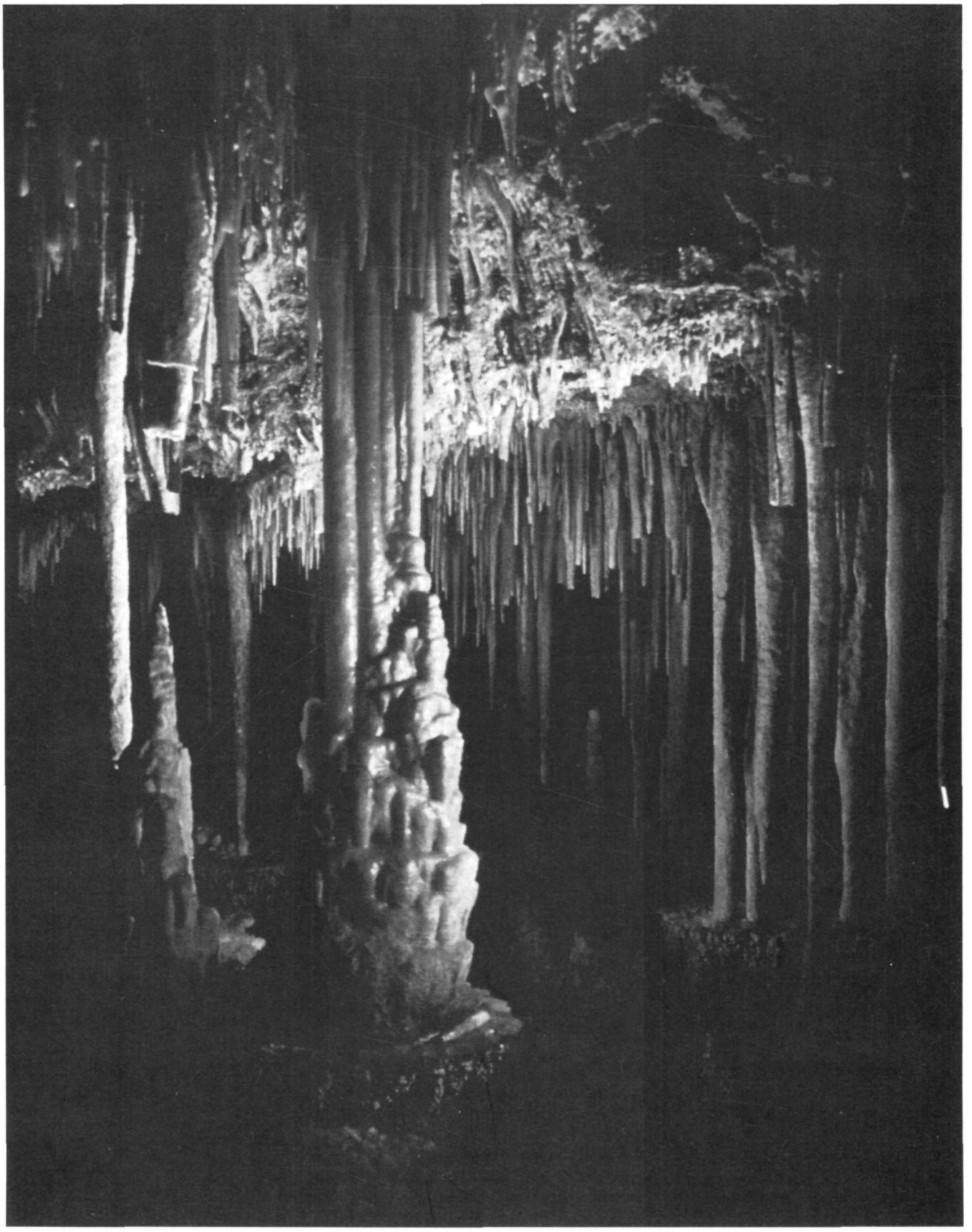
Filters aren't as useful in total darkness. The natural colors come up if properly lighted.

What are the most important issues for you in conserving and photographing caves?

Caves need protection. Cave formation is a very slow process. People who break off pieces of formations find it's a little like a pebble in a stream; once you take it out and it dries, it's not as pretty. Things that are pretty in a cave won't be in daylight.

Our purpose is to photograph the beauty. It is non-renewable. Once it is destroyed, it won't come back in your lifetime.

Marjorie Corbett is a regular contributor to National Parks.



Cottonwood Cave, New Mexico; D&J McClurg

NPCA Report

Battle Begins to Reauthorize Endangered Species Act

Congress has already begun hearing arguments for and against the reauthorization of the 1973 Endangered Species Act. Much of the action against the act is expected to come from interests in the western part of the country.

Western water users, who form an extremely strong lobby, are intent on getting their dam projects built. But some of these projects jeopardize the Platte River habitats of the endangered whooping crane. This large white bird with dramatic, black-tipped wings numbered only 15 in 1941. Due, in large part, to the creation of the Endangered Species Act, the whooping crane population numbers almost 150 today.

According to the act, dams and other federal projects can be stopped if they threaten the habitat of an endangered species, such as the whooping crane. Western water lobbyists will be working to weaken this section of the act.

Cattle ranchers and others want more authority to kill timber wolves, grizzlies, and other predators that are listed as threatened or endangered. But the grizzly population in the Yellowstone ecosystem is extremely shaky. Every grizzly killed there represents a real threat to the population's very existence.

In fact, conservationists say the act, as it is written now, is not strong enough. Although almost 430 species have been added to the endangered list in the past 12 years, more than 1,000 plant and animal species languish on the candidate waiting list. While waiting to be listed, both the Texas Henslow's sparrow and the bridled white-eyed bird from Guam became extinct.

Unless protective actions are taken, even the listing of a species does not guarantee its continued existence. The last known habitat of the endangered Palos Verdes blue butterfly was bulldozed, and the species became extinct.

Although the National Park Service and other agencies have set up a program to ensure the survival of the endangered Kemp's ridley sea turtle, conservationists believe that more money could be appropriated for this and other programs. In fact, the Administration's 1986 budget request contains no money to acquire—and, thus, protect—the habitats of endangered species.

Our foods and medicines depend on strong and diverse populations of plants and animals. Yet, species extinction is growing by geometric proportions; and scientists say we may be losing species valuable to our future well-being.

Ask your senators and representatives to support the reauthorization of a strong Endangered Species Act, and to fight any amendment to allow the taking of threatened or endangered predators.

Ranchers want to weaken the Endangered Species Act so they can kill predators such as the Yellowstone grizzlies below, whose population edges on extinction.

Ron Shade

Thousands of Boy Scouts Plan Valley Forge Camp-Out

This autumn, for their 75th Anniversary Jubilee, the Boy Scouts of America are planning to set up tents for 2,000 to 3,000 scouts at Valley Forge National Historical Park.

If they are allowed to carry out their plan, the Boy Scout organization will rig platoon upon platoon of tents in parts of the park that represent the historic scene. And it is likely that the sheer numbers of boys, visiting families, and others—which could amount to as many as 10,000 to 20,000—will cause the vast group to spill into an area that may contain valuable archeological resources.

As the eleventh most popular park in the 335-park system, Valley Forge—where Washington's army spent a bitter winter during the Revolutionary War—already bursts with visitors on any sunny weekend. Approximately four million people visit the park annually and nine million commuters pass through its boundaries.

Ben Love, chief Scout executive, insists that "Scouts are taught to leave every campsite as good as or in better condition than they were

Teddy Roosevelt Park Plans To Erect 180-Foot Towers

Park staff at Theodore Roosevelt National Park, whose north and south units lie approximately 100 miles apart in western North Dakota, say radio communication between the units is inadequate. Further, the National Park Service (NPS) says the solution is to build three 180-foot steel communications towers.

The plan is to construct one tower at the park's south unit, and one each at Knife River Indian Villages and Fort Union Trading Post national historic sites. These two historic sites, which are administered by the NPS staff at Theodore Roosevelt National Park, also are located in the western part of the state, and they are undeveloped to the extent that they have only temporary visitor centers.

when they arrived." But NPCA believes that 3,000 Scouts—even environmentally conscious Scouts—can't help but trample an area valued in our country's history.

NPCA President Paul Pritchard communicated the association's concern to the Boy Scouts, saying, "The 75th anniversary activities should more appropriately be placed in a location where large numbers of individual participants and visitors can be accommodated without compromising the integrity of a national resource."

Valley Forge was authorized for the National Park System on the 200th anniversary of our independence. Before 1976, it was run by the State of Pennsylvania, which allowed Boy Scout jamborees at Valley Forge in the 1950s and as late as 1964.

The park's general management plan states that "some of the more intensive recreational activities will not be allowed." Three years ago, however, political influence convinced former Interior Assistant Secretary G. Ray Arnett to let 750 Scouts camp overnight at Valley Forge to celebrate Washington's birthday each year.

National Park Service

At their 1964 Jamboree, thousands of Boy Scouts camped at Valley Forge, trampling vegetation and the historic scene. NPCA fears that Valley Forge, now a national park, will suffer from a planned Boy Scout Jubilee this summer.

Once that precedent was set, former Interior Secretary William Clark agreed to the much larger and longer jubilee event. The National Park Service (NPS) did put a limit on some of the Scouts' proposed activities. No hot-air balloon or helicopter rides and no parachutists, said the NPS.

Although the jubilee is sure to disturb the historic scene, ruin vegetation, crowd out other visitors, and impede traffic, the officials of the Boy Scouts of America seem unwilling to consider any other location, even though a number of alternatives exist.

NPCA objects to the precedent and believes the park will suffer. "As with any rule or policy," said Pritchard, "once it is relaxed it can never again regain its full vitality. While the Scouts at Valley Forge may pride themselves on their success, in the long run, there will be no winners in such a process."

In the park's environmental assessment, the NPS vaguely states that the radio towers will improve visitor safety and reduce administrative telephone costs. No details are included to show if or how radio communications will accomplish either objective. And no building costs are provided to show whether or not the steel towers would even be cost-effective.

In fact, regarding visitor safety, NPCA believes emergency response at the outlying units could be provided more quickly from nearby towns.

In addition, the environmental assessment itself says that "visual impacts of the tower . . . may compromise the intended historical scene" at Knife River and "inclusion of a large tower within the park will compromise the preservation of the historic scene" at Fort Union.

Nor have any surveys been done to assess possible impacts. The towering lattice structure may endanger bald eagles, which winter along the Missouri River in the Knife River area. And the tower site at Knife River would be only 500 feet from a trail at the Buchfink Archeological Site, which the environmental assessment (EA) says is "an area of prime interpretive importance."

The NPS is also negotiating with energy companies to lessen visual impacts from oil development along Theodore Roosevelt's boundaries. As NPCA says in its comments on the EA:

"It hardly makes sense for the National Park Service to argue that adjacent oilfield developments will visually impair the landscape when they themselves are constructing a highly visible radio tower inside the park."

Nation's Governors Endorse Bill to Control Acid Rain

The National Governors' Association has stepped forward and endorsed legislation to control the growing threat of acid rain. The bill requires a ten-million-ton reduction of sulfur dioxide by 1998. The bill also calls for an expanded federal acid rain research program; and it would fund that program with $100 million per year.

"Although the bill is weaker than the approach advocated by us," said NPCA President Paul Pritchard, "we are most encouraged to have the governors acknowledge that acid rain is a serious problem requiring a federal solution. We will be working with the National Governors' Association and the Congress to improve this bill; and, hopefully, we will soon see an acid rain control program become law."

NPCA to Join Events Celebrating Wilderness

July 23–28 artists, researchers, and conservationists will meet in Fort Collins, Colorado, to find ways of furthering the cause of wilderness.

Participants, including NPCA, will discuss the results of wilderness studies and identify goals and specific areas worthy of wilderness protection. To clarify the need for more wild spaces in this country, NPCA will display its recreational carrying capacity exhibit. And the University of Maryland team, who published the NPCA carrying capacity study, will present papers on that subject. Following the conference, dozens of artists will exhibit paintings, prints, and sculptures. The works of art, which will be available for purchase, will all relate to wilderness and the natural world.

The wilderness research and art gathering will be a prelude to a major international conference planned for September 1987. The Fourth World Wilderness Congress will convene in Denver and will draw together environmentalists, industrialists, tribal leaders, farmers, sports enthusiasts, and others.

NPCA President Paul Pritchard, who will serve on the board of advisors, said, "The Fourth World Wilderness Congress signals the worldwide potential of the wilderness concept. It is a tribute to Robert Sterling Yard, my predecessor and first president of NPCA, who helped establish the wilderness movement in the United States."

NPCA Helps Celebrate Anniversary of the Arch

The St. Louis Arch—gateway to the West and a commemoration of the Lewis and Clark expeditions—is now 20 years old. To help celebrate this anniversary, NPCA donated its 1984 World's Fair exhibit to the Park Service and unveiled it at Jefferson National Expansion Memorial, the national historic park that overlooks the Mississippi River and includes the 630-foot arch.

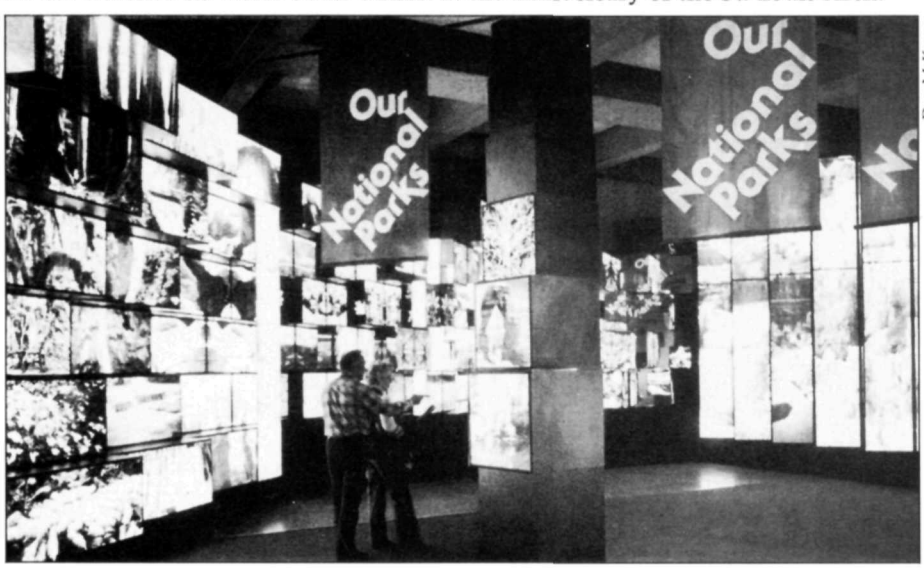
The NPCA exhibit is composed of lighted modules that show off the colors, the grand scenics, the variety of our National Park System.

Members of Congress, Jefferson Superintendent Jerry Shobert, NPCA President Paul Pritchard, and NPCA Board Chairman Steve McPherson were present at the opening. These and other guests were treated to an "interpretive" luncheon that echoed the frontier days.

Pet, Inc., and Pet Group President Jim Matson, who also serves as an NPCA vice chairman, hosted the luncheon.

Because most of the Lewis and Clark papers reside in St. Louis, the anniversary celebration included a meal that came straight from Mrs. Clark's cookbook: wild fruits, venison pemmican, and roast buffalo.

NPCA unveiled its World's Fair exhibit at the anniversary of the St. Louis Arch.



Don McKenna

Conservationists Win Suit Against Black Bay Trapping

On March 10, U.S. District Court Judge Robert Renner ruled that the Interior Department had broken the law by allowing trapping at Black Bay, which lies adjacent to Voyageurs National Park.

Less than three years ago, Congress deleted Black Bay from Voyageurs and gave those 1,000 acres to the State of Minnesota. Only waterfowl hunting would be allowed in the bay, said Congress.

Minnesota officials and the Interior Department—especially former Assistant Secretary G. Ray Arnett—interpreted the situation differently. Interior approved the state's plan to allow trapping at Black Bay.

Voyageurs National Park Association, NPCA, and other groups cried foul and sued Minnesota, Interior, and Arnett. Conservationists claimed that the defendants defied the Black Bay Boundary Revision Act by allowing trapping. Trapping jeopardizes bald eagles and grey wolves, and thus defies the Endangered Species Act.

The judge decided that Congress intended to return Black Bay to Minnesota only if the state limited hunting to waterfowl. Cited were a number of statements that had been made during congressional hearings.

Representative James Oberstar (DFL-Minn.) had said, "Minnesota would manage the lands and water of Black Bay as a wildlife management area, in which only waterfowl hunting would be permitted."

Senator Rudy Boschwitz (R-Minn.) had testified that "the State of Minnesota has agreed to then designate the Black Bay area as a wildlife management area, permitting duck hunting but protecting other wildlife."

News Update

Jail for Relic Hunters. U.S. Magistrate Judge David Lowe announced jail sentences for the three men convicted of digging up Civil War artifacts at Richmond National Battlefield, Virginia. Although the judge suspended most of the one-year sentences for two of the men, the third will spend six months in jail because "his obsession for the artifacts had become a lust for physical objects" of the Civil War period. The men were prosecuted for violating the Archeological Resources Protection Act. As Judge Lowe said, "This is a major crime . . . a breach of hallowed ground . . . [and] an intentional attempt to steal a part of history."

•

Burr Trail is Back. Utah Congressman Jim Hansen recently proposed a bill that revives the Burr Trail controversy. Hansen wants the 66-mile dirt trail paved, including the sections that run through Capitol Reef and Glen Canyon. In addition, the bill would retain rather than phase out grazing in Capitol Reef and would bring back the plan to pave the Confluence Overlook in Canyonlands. Hansen's bill would also expand Canyonlands to include Lavender and Davis canyons, thereby precluding proposed nuclear waste dump sites. NPCA sees this positive aspect as a smokescreen. NPCA Rocky Mountain Representative Terri Martin says, "We don't need to sacrifice part of a national park to save one."

•

Fishing Bridge and Grizzlies. In order to get the okay to build the Grant Village area of Yellowstone National Park, the NPS had agreed to remove the park's Fishing Bridge campground, which lies in prime grizzly habitat. Now that the year for removal has come, recreational vehicle lobbyists have put pressure on Congress to keep Fishing Bridge. More than 100 congressional offices have, in turn, put pressure on the NPS. The NPS has recently come out with one study on the Fishing Bridge issue, and is planning another. NPCA believes that the studies are stalling tactics; that the mandate to remove the campground is clear; and that the threatened grizzly has as much right to the park as do visitors.

•

Get Ready for Coastweek 85. The fourth annual celebration of our coastal resources will take place this autumn; but the time to organize activities is now. Preserving coastal barriers, designating marine sanctuaries, and establishing beach parks are all goals. To achieve those goals, Coastweek planners will encourage participation through education. Activities will include nature walks, whale watches, museum exhibits, canoe trips, and workshops. For a list of suggested activities and other information, write Coastweek 85, Box 545, South Wellfleet, Massachusetts 02663.

NPCA Survey Response: Fees Are OK, Taxes Are Not

The U.S. Fish and Wildlife Service is looking for ways to increase funds for nongame wildlife. One way is to tack excise taxes onto the cost of camping and photography gear. Another is to charge use fees for people who want to backpack, boat, and camp on federal land.

NPCA's survey in the January/February issue drew 263 responses to this issue. By a margin of two to one, respondents say hikers should not pay excise taxes on equipment. However, a slight majority—51%—were willing to pay fees for use of trails.

The vast majority of respondents (87-94%) both buy camping and photographic gear and use it on public lands. Most people would like the money used for managing wilderness areas (86%) and for trails and backcountry camping (83%).

In addition, most people (87%) would like the option of purchasing an annual trail entry permit. Approximately one-third would cut down their use of trails if fees were charged; and 40% would buy less equipment if a 5-10% excise tax were charged.

Anasazi Addition Planned For Petrified Forest NP

NPCA cultural resources coordinator Laura Beaty spoke for both NPCA and the Archaeological Conservancy when she testified in support of a bill that would add 40 acres to Petrified Forest National Park, Arizona.

"It is," according to NPCA, "one of the few remaining Anasazi sites in the region that is still in pristine condition."

The House bill (H.R. 1185) was introduced by Arizona representatives Morris Udall (D) and Eldon Rudd (R). Senators Barry Goldwater (R) and Dennis DeConcini (D) have introduced a similar bill, and both pieces of legislation have strong congressional support.

The National Park Service (NPS) has recommended adding Site 236 to the park a number of times during the past 20 years—most recently in the 1983 management plan for Petrified Forest. To preserve the site from imminent subdivision, the Archaeological Conservancy purchased the property in February and has offered to donate the 40 acres to the NPS.

Site 236 lies on the outer fringes of Anasazi territory and contains a 30- to 50-room pueblo plus a great kiva area. Such Anasazi ruins are rare in Arizona and what makes the site even rarer is that it lies within the boundaries of the ancient Hohokam culture as well.

"Dating back to the 12th century," said Beaty, "Site 236 may well contain elements of both [Anasazi and Hohokam] that would shed a good deal of new knowledge on the interaction of these great prehistoric cultures."

The only hitch is that Santa Fe Railroad owns mineral rights to the parcel; although no known marketable minerals exist in the area. But the House Interior Committee is prepared to exchange Santa Fe's rights on another piece of federal land.

Adirondack Report Stresses Acid Rain and Use Problems

Adirondack Park, a centerpiece of the greenline park concept, encompasses six million acres of public and private land in upper New York State. The Adirondack Council, which includes NPCA as a member organization, recently released its most comprehensive park report since 1970; and acid rain led the list of the council's main concerns for the area.

As a greenline area, Adirondack Park includes forests, farmlands, and towns, 15 state wilderness areas, nearly 3,000 lakes, and thousands of miles of rivers and streams. It is the largest park area outside of Alaska, totaling one-fifth of the land in New York State.

And, this year, Adirondack Park is celebrating its 100th birthday—with a grand ball, symposia, photo exhibits, canoe races, and many other activities.

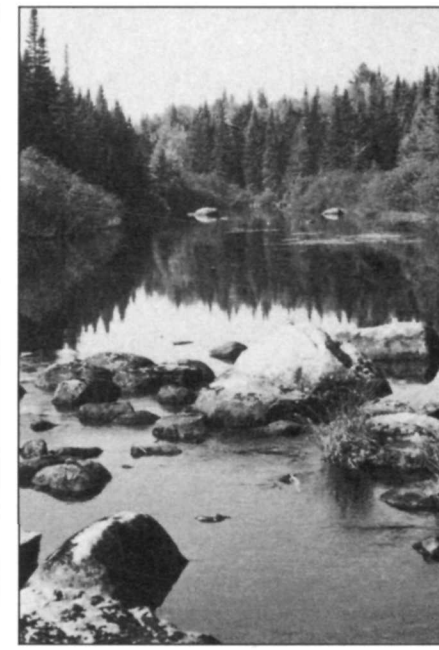
Because the Adirondacks are a patchwork of public and private lands, protecting park resources can be complicated. The Adirondack Council has some specific concerns, however, and these are set out in "State of the Park: 1985."

The report praises New York Governor Mario Cuomo for his stand against acid rain and the toll it is taking on the Adirondack's lakes and forests.

It also discusses appropriate park uses. As an example of sound park management, the report points out how the Adirondack Park Agency voted nine to one to reject an application to build an all-terrain vehicle (mountain bike) racetrack in the center of the park. The council values the Adirondack Park for its wild and often pristine character and as a model for future greenline parks.

The report promotes the use of conservation easements as a low-cost, practical way of preserving natural space. (In an easement, a property owner is paid *not to develop* a piece of property.)

Rounding out park boundaries and making wise use of monies earmarked for forest preserve acquisition are also stressed. "State of the Park: 1985" faults the state's forest preserve acquisition program, saying it "has lost its sense of urgency and direction."



Gary Randorf

Rock River (above), in New York State's Adirondack Park, is one of hundreds of waterways that crisscross this six-million-acre greenline park, which is 62 percent privately owned.

In addition, the report chides the Adirondack State Agency for not better protecting the park's wilderness areas; gives private owners fair marks on protecting their lands; and calls state and federal stewardship "fair," but "declining." It also says that "initiating a major Adirondack Park interpretive program should be one of the state's highest priorities in 1985."

"State of the Park: 1985" concludes with praise—and a warning for the park's protectors: "There is still time to alter destructive trends and preserve—even enhance—what remains of the most spectacular open space reserve in the eastern United States. We need only the political will to do so.

"With the support, love, and vigilance of an informed public, the Adirondack Park will continue to serve as a global demonstration project that human beings can coexist in harmony with their natural environment."

Seiberling Hits Key Issues At Conservation Meeting

Addressing the nation's environmental leaders at a Conservation Round Table luncheon hosted by NPCA, Representative John Seiberling concentrated on the issues vital to this country's federal lands.

Seiberling, who is chairman of the House Subcommittee on Public Lands, said, "In the past two Congresses, the Administration has stressed funding development activities at the expense of conservation."

He pointed out that the Interior Department probably will not replenish the $30 million that were transferred from the National Park Service acquisition program to the Bureau of Land Management for fire-fighting expenses.

Passing the American Conservation Corps Act, which would establish a youth work program to improve public lands, is a big priority this year. Seiberling also hailed the selection of Representative Bruce Vento (D-Minn.) as chairman of the House Subcommittee on National Parks and Recreation.

Seiberling said, "Vento has been an exceptionally hardworking, right-voting member of the Interior Committee. He is a strong conservationist and I know that you will find him an effective ally."

Mark Kaminsky

NPCA's Paul Pritchard (left) honors Rep. John Seiberling at Conservation Roundtable.

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Members Corner

On Tour with NPCA

NPCA is dedicated to offering our members educational, fun-filled tours that provide a closer and better understanding of our national parks and their resources.

This spring, NPCA is happy to announce our sixth annual cooperative venture with Wildwater Expeditions Unlimited, Inc. On May 24, raft down West Virginia's New River, one of the oldest rivers in the western hemisphere.

Come, enjoy, and soak in the history of glacier-cut cliffs and the hundred-year-old ruins of coal boom towns. And, with an expert staff of skillful navigators, you can paddle some of the wildest rapids in the eastern part of the country.

Due to an overwhelming response, NPCA and Questers are happy to announce an additional trip to Alaska this summer. The trip begins Saturday, July 27, and ends Monday, August 12. Contact NPCA as soon as possible to assure yourself a place on this adventure.

For members in the Mid-Atlantic Region, spend a portion of your Independence Day holiday rafting on the Potomac River. This July 7, one-day trip will provide a cool, family-oriented adventure.

For more information on any or all of the above-mentioned trips, write NPCA Trips, 1701 18th St., NW, Washington, D.C. 20009.

Watchful Eyes

Four new park units have been added to the National Park Action Program (NPAP). NPCA members are now keeping a watchful eye on many sites including Fort Bowie National Historic Site, Arizona; U.S.S. Arizona Memorial, Hawaii; Harpers Ferry National Historic Site, West Virginia; and Fort Laramie National Historic Site, Wyoming.

These new additions bring the total number of parks and park areas that are part of the Park Action Program to more than 180. If you would like to participate, or for more information on this vital, far-reaching aspect of NPCA's work, please contact Laura Loomis at NPCA in Washington, D.C.

Corporate Matching Gifts Program

When making a contribution to NPCA, check with your employer about the matching gifts program. Many companies participate in such a program and will match your contribution. Some of the companies with such a program are: Atlantic Richfield, Digital Equipment Corporation, Equitable Life Assurance Society of the U.S., IBM, Mobil Oil, MONY, Quaker Oats, Squibb, and Times Mirror.

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Springtime in Denali

The 450 species of Denali's trees, shrubs, and herbs spend most of their lives in physical and metabolic dormancy, but during the brief summer they work frantically to ensure their survival. Photosynthetic activities are carried on at full tilt to take advantage of the abundant sunlight. Flowers bloom in profusion—and all at once, it seems.

Plant foods are manufactured; seeds mature; fruits ripen. All this must happen during a growing season of less than a hundred days. For the remaining nine months, most plants die back to ground level.

The taiga ("land of little sticks") is descriptive of a forest or woodland of the Far North. Above the timberline (about 2,700 feet in Denali) the taiga gives way to the tundra—windswept treeless slopes where the vegetation may include shrubs, sedges, herbs, mosses, and lichens.

For most of the year, when the subarctic twilight encloses the area in darkness for up to 20 hours of the day, tundra shrubs exist in a colorless realm of dark, dry, twiggy stems and dusty, dimly lit snow. The month of June is half over before they show much sign of life. Then, as the sunlight reaches its maximum of 19 hours a day, the transition from grey sticks to verdant "shrub meadow" is startlingly abrupt.

The moist tundra passes through six, perhaps eight, weeks of intermittent summer warmth. Cold rain and chilly fog may descend for days, shading the scene a bleak, silvery grey. Extremely warm spells may occur, too, when the sun beats down on plants and people unused to the heat, and mosquitoes retire to cool, mossy hollows.

By early August, tundra shrubs already show signs of senescence. Colors fade and occasional leaves turn to an early autumn amber. As abruptly as it came to life, the moist tundra reverts to a lifeless tangle of twiggy stems.

The plants of the alpine tundra exemplify the refined adaptations that plants must make to a dry, windy, and bitterly cold environment. Competition with or among species is not a major factor.

They possess simplified life histories. Virtually all are perennial plants and many are evergreen, so they are able to take advantage of every photosynthetic opportunity. Some utilize the light transmitted through the snow that still covers them in spring. Most disperse seeds with the aid of the reliably ubiquitous wind. And all are diminutive and tough.

Here plants advance against or are constrained by a powerful physical environment. And life is a series of winters, bounded by June and August.

Excerpted from Denali: The Story Behind the Scenery, *written by Steve Buskirk; KC Publications, Box 14883, Las Vegas, NV 89114. $3.95 postpaid.*

Moss campion; by Nancy Simmerman

Alpine bearberry, a crimson blaze in early autumn; by James Shives

Cottongrass and Mount McKinley; Ed Cooper

East Rim, Big Bend National Park

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