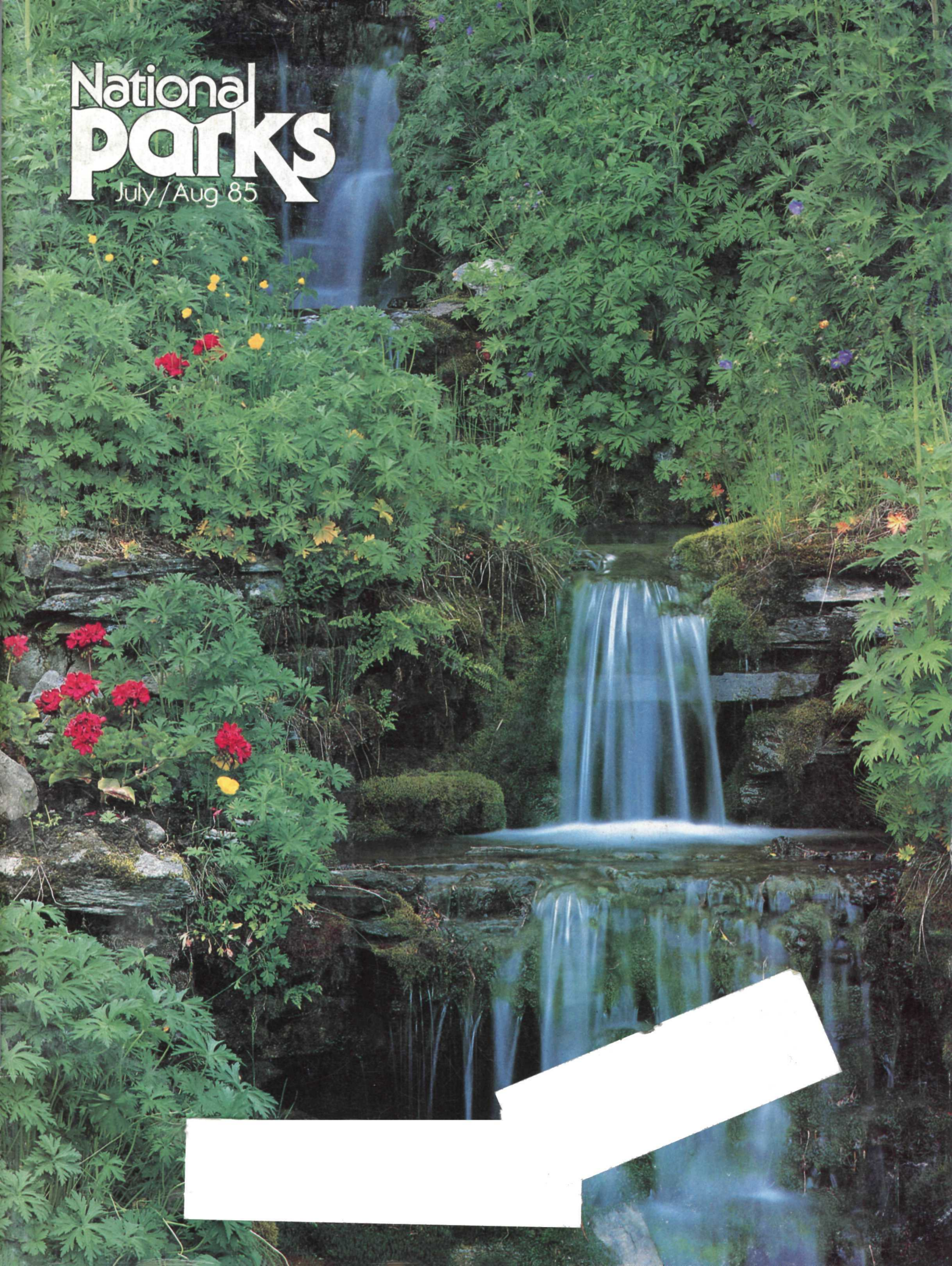
National
Parks
July/Aug 85

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Renowned artist, Robert Bateman captures the majesty of Canada's wildlife in his 18″ × 24″ poster, Winter Sunset Moose. Suitable for framing.
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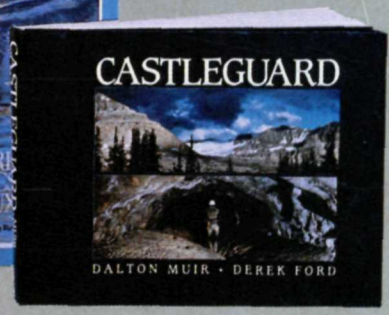

Perfect for gift-giving or for personal use, the agenda, designed for use in any year, features 52 colourful photos of national parks, historic parks and heritage canals.
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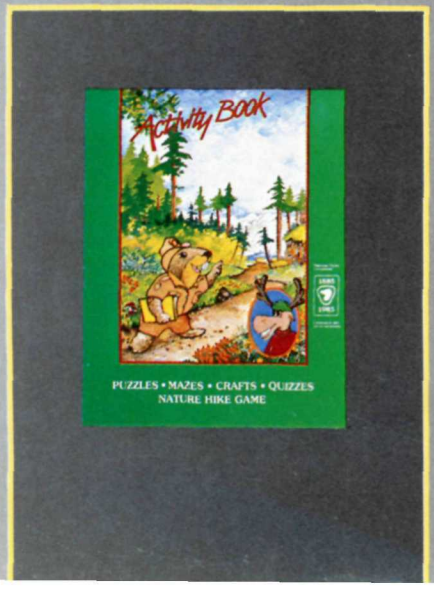
1985 is a year for celebration. People everywhere are being invited to participate in a host of lively activities marking Canada's National Parks Centennial.
To commemorate the Centennial, Parks Canada has developed these handsome products. Here's an ideal opportunity to explore the beauty of Canada's national and historic parks and heritage canals. To order these items, send a cheque or money order payable to the Receiver General of Canada to:

The Canadian Government Publishing Centre,
Ottawa, Canada, K1A 0S9

Please specify catalogue numbers for each item. All prices include shipping costs.



The activity book, created for children aged 7-12, serves as a fun-filled educational tool developing an awareness of and stimulating an interest in Canada's national park system.
Catalogue number R62-207-1985E
$4.75 (Canadian)

National Parks Centennial
1885
1985
Centenaire des parcs nationaux

Parks Canada/J.R. Graham

Canada, page 24

Editor's Note: Like the grizzly in Yellowstone National Park, a number of circumstances have combined to force the Florida panther into a few patches of protected land. Unlike the grizzly situation, once this small population of Florida panthers is gone, the entire species will be gone.

Juggled water resources, high-pressure development in South Florida, hunting, and road kills are all part of the problem. Although the state is working with federal agencies and conservationists to save the panther, the population numbers only 20-some animals—and there are no guarantees.

Reauthorization of the 1973 Endangered Species Act, which is still in congressional committee, will help enforce protections for species that are on the decline. But, as *Homo sapiens* take over more and more of the planet, we must be ever more vigilant in protecting the plants and animals with which we share this world.

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National Parks

Vol. 59, No. 7–8, July/August 1985

The magazine of the National Parks and Conservation Association

Commentary

Features

Departments

Cover: **Banff National Park, by Ed Cooper**
The lushness of the Cascades Rock Garden contrasts with the rough wilderness usually associated with the Canadian Rockies.

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.

Life memberships are $1,000. Annual memberships are $200 Sustaining, $100 Supporting, $50 Contributing, $25 Cooperating, $18 Associate, and $13 Student and Retired. Dues in excess of $7 are deductible from federal taxable incomes; gifts and bequests are deductible for federal gift and estate tax purposes. Mail membership dues, contributions, and correspondence or change of address to address below. When changing address, please allow six weeks' advance notice and send the address label from your latest issue along with new address.
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Commentary

The Right Stuff

Behind Florida Governor Bob Graham at least 50 children were running on the white sand along the Gulf of Mexico. The place, Grayton Dunes, Florida.

As I followed, I recalled the times I had been a part of park dedication ceremonies. My presence here at Grayton Dunes represented the results of the combined efforts of people who knew something was right and who knew that we needed to work together to achieve what was right.

The story is a simple one. A bank had gone into default. The Federal Deposit Insurance Corporation (FDIC) had taken over the bank's assets. The FDIC decided to sell the property that the bank had title to, including some of the last dune and beachfront property in Florida. The state offered to buy the property at fair market value, but a state law requires that the state make public the property appraisal before any transaction can take place.

Developers stated that they would offer a few dollars more than the state's bid. And, unfortunately, the FDIC said they would sell to the highest bidder.

At this point, the State of Florida asked NPCA for assistance. NPCA, with the help of other conservation organizations, contacted the FDIC. After months of communication and struggle, the FDIC relented and the property was sold to the state.

If it had not been for the personal involvement of Governor Graham in making this issue come alive, this effort to save Grayton Dunes may not have succeeded. The land could have been sold to developers, and lost to future generations. It is with this same kind of commitment on the part of Governor Graham and his fine staff that we conservationists are able to reinvigorate the Everglades coalition.

As I stood there, looking out over the white sandy beach cut from 20-foot-high sand dunes, I knew then what we were doing was important and critical for those people who would enjoy this park forever.

It was a joyous occasion. The dedication ceremony helped me justify everything that our members and trustees want NPCA to do, everything that NPCA's staff is dedicated to doing. And, of course, none of this would have been possible without the commitment of our members.

Thank you for making Grayton Dunes State Park possible.

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.)

Preserving the Prairie

I read with interest the articles "To Make a Prairie" and "Shaping a Tallgrass Sanctuary" [March/April 1985].

Supporters of the Tallgrass Prairie National Preserve proposal may be especially interested to know of efforts to preserve prairies in other national park areas.

Here in Iowa there has been a surge of interest in preserving what is left of the state's virgin prairies and in rehabilitating some lands back to their natural prairie state after agricultural use.

Malcolm Berg, Superintendant
Herbert Hoover NHS, Iowa

Banning Bikes

I would like to encourage NPCA to work for severe restrictions of mountain bike use on NPS-administered lands [May/June 1985]. Mountain bikes can be destructive to the land and to the enjoyment of others. Plans should be made now to manage their use because once that use is established, it will be difficult to eliminate that use from environmentally or aesthetically destructive situations.

Lee Balick
Las Vegas, Nevada

Caving It

Your article on caves by Jim Glover and the Images column [May/June 1985] were both excellent.

I was sorry to see that Timpanogos Cave National Monument was left off the list. In addition to regular guided tours at Timpanogos, there are also special history and geology tours of the cave. Candles are used on the history tour to give you a feeling of what it was like to be an early cave explorer.

Nathaniel Goodman
Salt Lake City, Utah

The Latest Word

NPS Director Mott Presents His 12-Point Plan for the Parks

William Penn Mott began his stewardship of the National Park Service by outlining his concerns at a June 6 meeting at Yellowstone National Park.

Regional directors, conservationists, and the press heard Mott's 12-point plan for the National Park System; and NPCA Vice President T. Destry Jarvis said, "It's been a long time since the Park Service has had a director who is as strong a leader and as conservation oriented as Bill Mott."

One of Mott's major concerns is providing park visitors with a quality experience. He pointed out that, on occasion, driving through Yosemite is like driving over the San Francisco Bay Bridge at rush hour.

For instance, during the Memorial Day weekend the crush at Yosemite was so great that the number of cars exceeded the number of parking spaces in the valley. The NPS closed the park gates; yet, the park received only one letter of complaint.

To avoid this sort of situation throughout the system, Mott believes limitations are necessary. He pointed out the NPCA/NPS cooperation on carrying-capacity studies. To facilitate quality experiences, he would accompany limitations with information directing visitors to other park or recreation areas.

Among Mott's main concerns for the parks are:

- protecting natural, cultural, and recreational resources;
- pursuing—rather than merely studying—land protections through purchases, easements, and other means;
- providing more interpretive services for visitors and getting citizens more involved in park issues.

NPS Director Mott also made clear that Interior Secretary Donald Hodel backed this plan for the National Park System.

Hansen Proposes Wilderness Bill For Utah's Parks

Rep. Jim Hansen (R-Utah) has proposed a bill that would add 635,708 acres of national parkland in Utah to the national wilderness system. Hansen's bill (H.R. 2670) only affects lands already within the park system; and, in most cases, his recommendations are the same or slightly less than the National Park Service recommendations.

Hansen proposed 54,450 acres in Arches (NPS: 61,547); 16,303 acres in Bryce (NPS: 20,810); 4,370 acres in Cedar Breaks (NPS: 4,830); 260,150 acres in Canyonlands (NPS: 287,985); 179,815 acres in Capitol Reef (NPS: 218,305); and 120,620 acres in Zion (NPS: 126,585).

NPCA Vice President T. Destry Jarvis said, "The Hansen bill misses the mark by not including any wilderness acreage in the Glen Canyon National Recreation Area, an area that needs it most."

There is no mention of protecting Davis and Lavendar canyons from nuclear dump site plans, or of paving park roads. These provisions, however, may be added to the bill during committee hearings.

At this time, Hansen is still intent on allowing permanent grazing in certain park areas as well as paving the Burr Trail, Kigilia Road, and a number of other park roads. Currently, Hansen says he is no longer proposing to pave the Confluence Overlook Road in Canyonlands.

Forest Service, BLM Move Ahead With Interchange

The Interior and Agriculture departments are now seeking comments on the broad plan to interchange 35 million acres of Bureau of Land Management and Forest Service lands. The purpose of the planned interchange is to block together parcels of federal land so they can be managed more efficiently and effectively.

NPCA agrees with the goals, but NPCA Vice President T. Destry Jarvis pointed out some other considerations. "In the past," says Jarvis, "national forest, park, and wildlife refuge boundaries often were drawn with little regard for ecosystems, ridgelines, watersheds, and other natural features. Any large federal interchange of lands should be designed to remedy this situation."

NPCA also recommends that some small parcels of federal lands that lie next to national parks might be better managed by the National Park Service. An example is the five wilderness study areas adjacent to Pinnacles National Monument.

Two major problems must be worked out in any such interchange. First, Congress must approve the interchange.

Second, various interest groups will undoubtedly lobby hard to have federal lands in their area managed by the agency most closely aligned with their interests. Energy developers and ranchers prefer dealing with the BLM; and timber companies favor the Forest Service.

The 30-day comment

period ends July 8, and comments should be sent to BLM/Forest Service Interchange, P.O. Box 21219, Washington, D.C. 20009-0719.

Task Force Recommends Tallgrass Park

The task force charged with studying a Tallgrass Prairie National Preserve recommended that Congress waste no time in establishing such a park.

The June 6 statement called for a park of approximately 50,000 acres. The task force suggested that lands around the preserve should be considered for scenic easements. They also recommended that oil/gas production and grazing continue on preserve lands. NPCA commends the task force.

ORRRC II Gets Extension and Proposed Slate

The life of the new Outdoor Recreation Resources Review Commission (ORRRC II) has been extended from 12 to 18 months, and it has a new name—the President's Commission on Americans Outdoors. For months there has been speculation on the membership of the commission.

Even without a formal announcement, the names on all the lists include: Gov. Lamar Alexander (R-Tenn.), Sen. Malcolm Wallop (R-Wyo.), Sen. J. Bennett Johnston (D-La.), Rep. Morris Udall (D-Ariz.), Rep. Barbara Vucanovich (R-Nev.), Frank Bogert, Sheldon Coleman, Derrick Crandall, Gilbert Grosvenor, Charles R. Jordan, Wilber F. LaPage, Rex Maughan, Patrick F. Noonan, Stuart Northrop, and, probably, William K. Reilly.

At a Conservation Round Table luncheon hosted by NPCA in Washington, D.C., Interior Secretary Donald Hodel said that he stands behind this slate of candidates.

Landowner Plan Would Drain Jean Lafitte

Louisiana landowners want to drain 3,000 acres that are hydrologically connected to Jean Lafitte National Historical Park. As of this writing, Environmental Protection Agency hearings on this issue are scheduled for June 18.

Because of the low-lying land around New Orleans and the intricate levy system to control flooding, draining this adjacent land would affect 1,200 acres within the park. A 300-acre swamp that now has a visitors' trail would be turned into open water.

By breaching dams and undoing the damage caused by water-control devices, the NPS has reestablished natural water drainage at Jean Lafitte. If the landowners were allowed to carry out their plan, it would destroy the natural ebb and flow of water in the park and the area's intricate hydrological relationship to the Gulf of Mexico.

As Park Superintendent James Isenogle said, "You can't drain this swamp without draining the Gulf."

Arizona Aqueduct Jeopardizes Saguaro Park

The first link in the Central Arizona Project (CAP) is complete, and now more water will be diverted from the already overused Colorado River.

On May 22, the Bureau of Reclamation (BuRec) let the water flow into the CAP's Granite-Reef Aqueduct, which ends approximately 75 miles north of Phoenix. The Phoenix link is due to open this December.

Eventually, in 1991, the canals will carry water as far south as Tucson—within the vicinity of Saguaro National Monument. Saguaro, however, is already beset by urban development.

To limit degradations to Saguaro, NPCA Southwest/California Representative Russ Butcher has made suggestions for the BuRec's recent draft environmental impact statement.

These suggestions include:

- burying the entire aqueduct as a pipeline along the route of the West Side Plan;
- constructing wildlife crossings over aqueduct canals in the vicinity of Saguaro;
- insulating pump machinery and constructing pump facilities below ground level to cut down noise;
- routing the proposed transmission lines along the aqueduct rather than along the western edge of the park, and designing the power poles to prevent raptor electrocution;
- minimizing the damage caused by construction to the healthiest population of threatened fishhook cactus in existence—or rerouting the pipeline around that land;
- coloring the concrete of the canal to blend in with the desert's earth tones.

Correction

Custer Battlefield National Monument is raising money to purchase a strip of private land running through the monument. The parcel is 9000 acres, not 900 acres, as reported in the May/June issue. So far, $100,000 has been raised toward that end.

Vacances au Nord
Northern Holiday

National parks in Canada offer activity and adventure from coast to coast

The Canadian national park system—Parks Canada—covers the breadth of the North American continent, from Terra Nova National Park in Newfoundland to Pacific Rim National Park in British Columbia. Rock-strewn eastern coastlines; the grasslands and waterways of the interior; raw peaks and glaciers in the Canadian Rockies; the frozen lands of the Yukon and Northwest territories; and the wild beaches of the Pacific shore are all part of Parks Canada. These parks do not feel foreign to Americans; they have visitor centers, campgrounds, supply stores, and sports facilities. But they are different. Just the park signs—printed in both French and English—are a simple reminder of a history separate from our own. Parks Canada contains 31 national parks and the system is still growing. Here we present a cross section of Canadian parks.

—Michele Strutin

Gros Morne
Box 130, Rocky Harbour; Bonne Bay, Newfoundland A0K 4N0; (709) 458-2417

Those who venture to Newfoundland can find on its windswept eastern coast one of the most geologically curious parks in the world. Gros Morne, with its moody fjords and fine salmon and trout fishing, tells a singular story of plate tectonics at work. The hills that fringe the Atlantic are composed of ancient rock from the earth's mantle that was squeezed up when two plates collided to form the Appalachian Mountains more than half a billion years ago.

The sea, too, is filled with wonder. On a dark night trace a trail in the water and see your path light up from the glow of tiny, light-producing dinoflagellate plants. To explore the park, follow the 13.5-kilometer James Callaghan Trail through steep-walled valleys, coniferous forests, heaths, and even alpine tundra.

Prince Edward Island
Box 487; Charlottetown, Prince Edward Island C1A 7L1; (902) 672-2211

The beaches of Prince Edward Island are known as some of the best in Canada. And the view from a lazy spot on Cavendish Beach takes in sand dunes and dramatic, red sandstone cliffs.

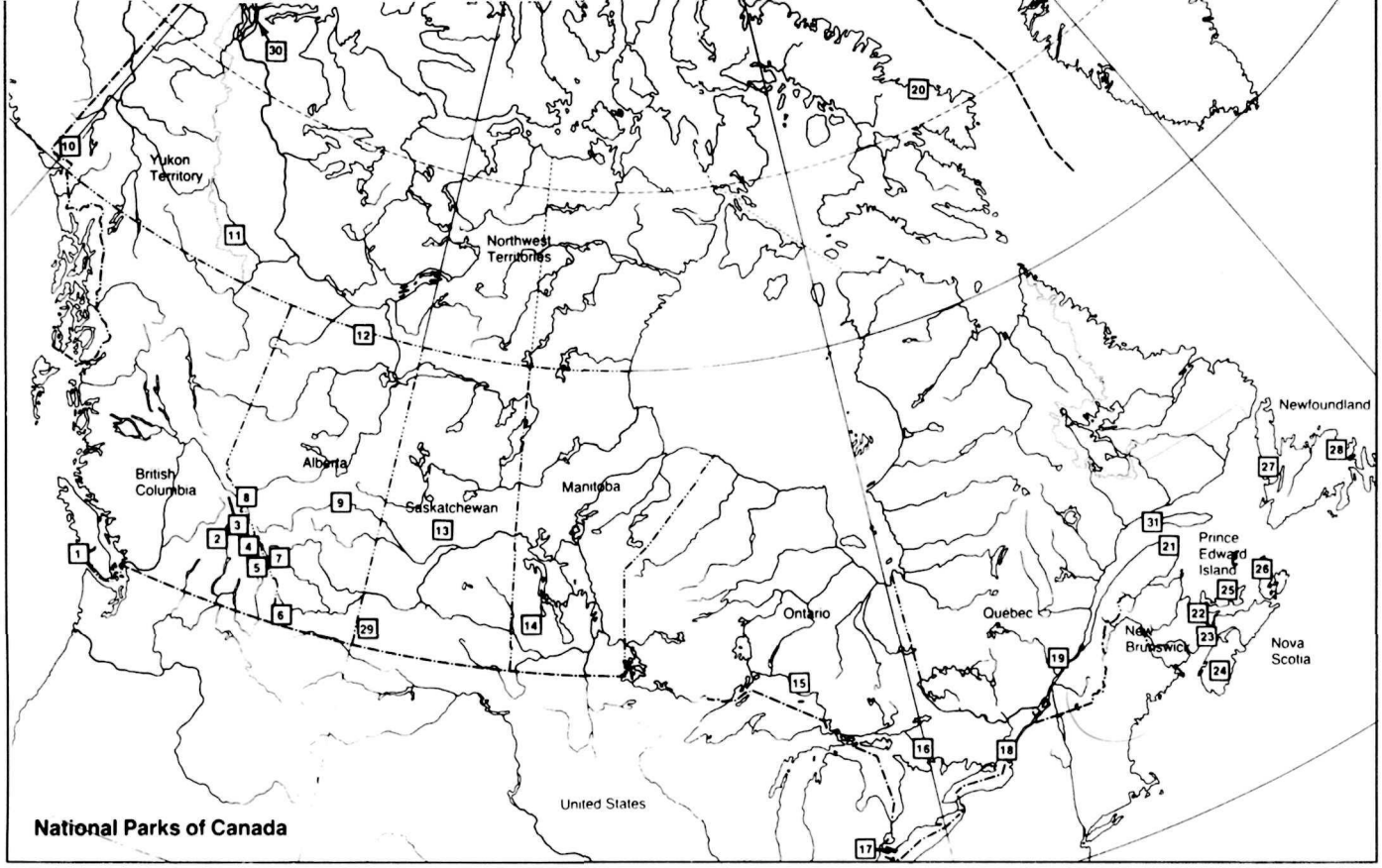
Canadian parks often offer more purely recreational activities than American parks; and here you will find tennis courts, a golf course, a lawn-bowling green, as well as Dalvey-by-the-Sea Hotel.

In fact, the renowned "Green Gables" golf course is named for the house made famous in the book, *Anne of Green Gables.* The birthplace of author L.M. Montgomery is a highlight of the park.

Point Pelee
R.R. 1; Leamington, Ontario N8H 3V4; (519) 326-3204

Like Cuyahoga and Gateway in the United States, Point Pelee attracts a large number of visitors from nearby urban areas, such as Toronto and Windsor. The park—a glacier-formed sandspit on the shores of Lake Erie—is the southernmost in the Canadian system. It has miles of beaches, but is most famous for its wealth of birds.

During spring and fall migrations, thousands of warblers and other varieties stop at the marshlands and forest that make up Point Pelee. Another migration period brings monarch butterflies, who festoon the trees like bright orange flowers. To view all of this airborne activity, Parks Canada has constructed observation towers and a boardwalk that stretches across the marshlands.



KEY

1 Pacific Rim
2 Mount Revelstoke
3 Glacier
4 Yoho
5 Kootenay
6 Waterton Lakes
7 Banff
8 Jasper
9 Elk Island
10 Kluane
11 Nahanni
12 Wood Buffalo
13 Prince Albert
14 Riding Mountain
15 Pukaskwa
16 Georgian Bay Islands
17 Point Pelee
18 St. Lawrence Islands
19 La Mauricie
20 Auyuittuq
21 Forillon
22 Kouchibouguac
23 Fundy
24 Kejimkujik
25 Prince Edward Island
26 Cape Breton Highlands
27 Gros Morne
28 Terra Nova
29 Grasslands
30 Northern Yukon
31 Mingan Archipelago

Kootenay

Box 220; Radium Hot Springs, British Columbia V0A 1M0; (604) 347-9615

One of Canada's famed Rocky Mountain parks, Kootenay offers dramatic views of Mount Wardle, cascading waterfalls, alpine lakes, and deep rockbound canyons. The ochre beds of the Paint Pots area provided the Kootenay Indians with paints for ceremonial dances; and the vermilion and ochre earth still delights the eye.

After hiking the Marble Canyon Nature Trail, visitors can soak out any stiffness at Radium Hot Springs. Now a center of visitor activity, these geothermally heated waters were once enjoyed by the Kootenays, who had scooped out a simple gravel pit.

Kluane

Haines Junction, Yukon Territory Y0B 1L0; (403) 634-2251

Climbers and the apocryphal ice worm are about the only forms of life on the vast ice fields and glaciers that form the interior of Kluane National Park. Canada's highest mountains spawn these rivers of ice, but all of the park is not so formidable.

In the warmer areas of Kluane, Dall sheep, moose, mountain goats, and grizzlies browze the alpine meadows and valleys. The magnitude of wilderness is so great that Kluane and the adjoining Wrangell–St. Elias National Park in the United States have been declared a United Nations World Heritage Site.

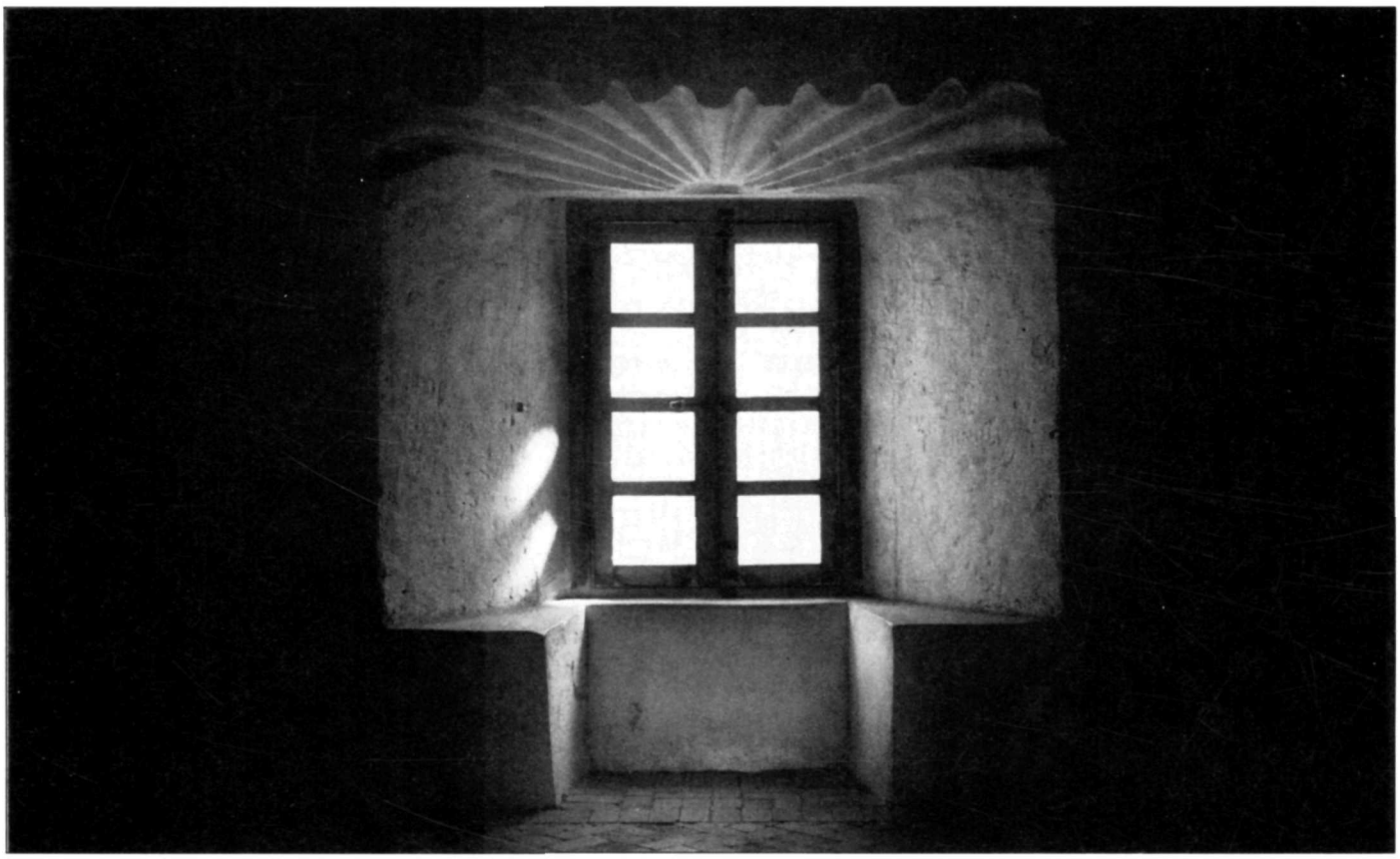
Camping and fishing for Arctic grayling are among summer's activities. And a full range of winter sports is possible for most of the rest of the year.

Pacific Rim

Box 280; Ucluelet, British Columbia, V0R 3A0; (604) 726-7721

Gray whales, sea lions, and harbor seals frequent the waters of Pacific Rim National Park, on the far west coast of British Columbia's Vancouver Island. Visitors to the park can view these sea mammals from wild, spray-splashed promontories, search out tide pools, surf, or hike through lush rain forests at the edge of the continent.

Those with a taste for the primitive can hike and camp along the rugged, 72-kilometer West Coast Trail, which follows the coastline through dense rain forest. The trail is actually one of three units that comprise Pacific Rim. The other two are Long Beach, a stretch of sand and stark headlands that is both the most accessible and the most popular unit; and the Broken Islands Group, about 100 islands that can be reached only by boat.



P·O·R·T·A·L·S

of the San Antonio Missions

Photographs by Bernhard J. Suess

A portal is a door, an entrance. Often the word is used to describe the structure around the door and porches of a church. It is also the "communicating part of an organism, specifically, the point at which something enters the body." Bernhard Suess' portals are all of these things, as his statements here reveal.

Literally, they are photographs of doors and windows of San Antonio Missions National Historical Park, a group of frontier institutions built by the Spanish in the early 17th century. They were religious, educational and defensive communities that were created to protect Spanish lands from French encroachment and to introduce the Indians to the Spanish civilization and the Christian religion.

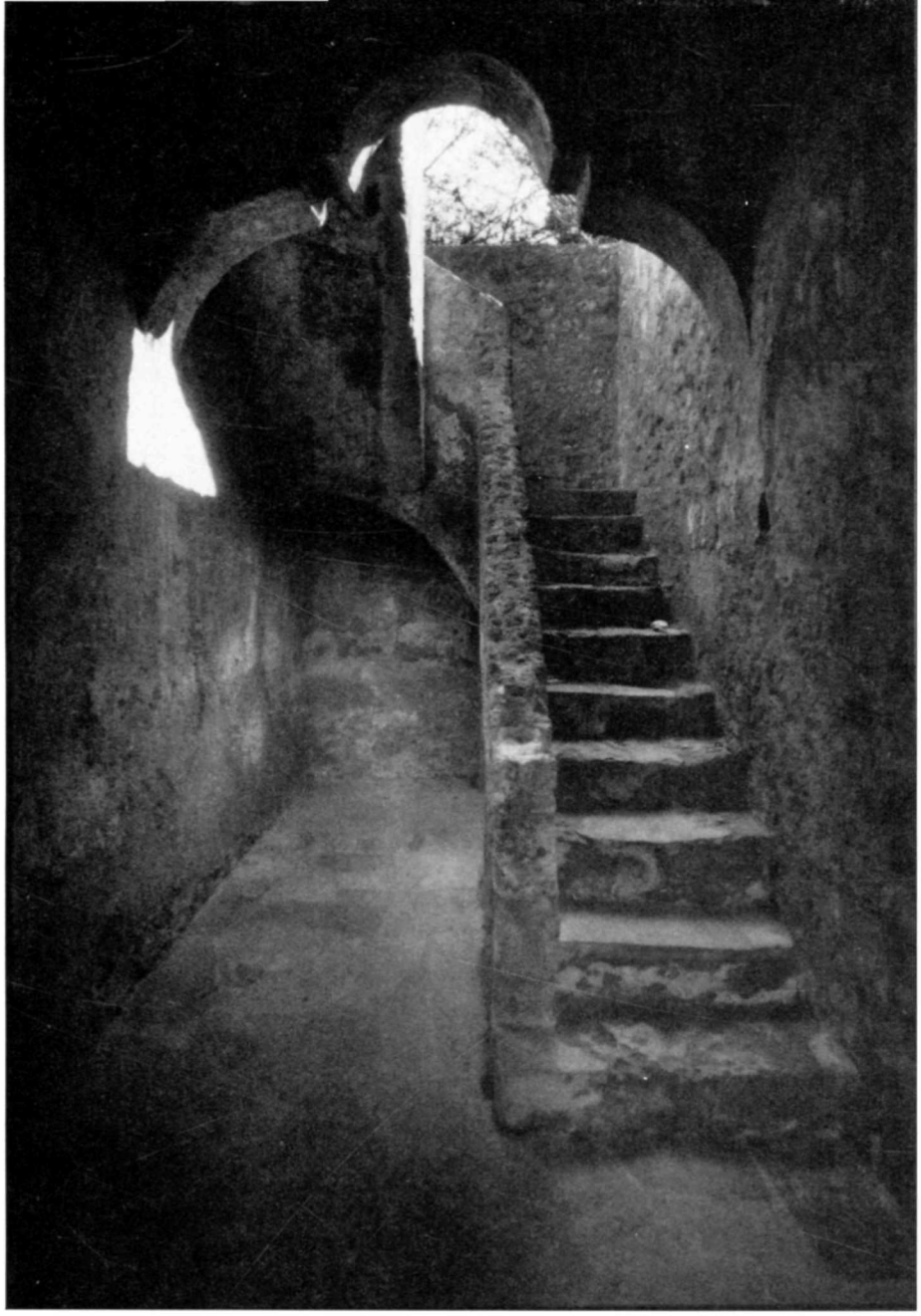
The missions were self-sustaining complexes with fields, workshops, housing, schools, and churches. In time there was a network that spread through Texas; but the four pictured here are strung like pearls along the San Antonio River.

Like all long lives, the history of these missions is complicated: they have been moved, sanctified and desanctified, resanctified, and restored in part. Once abandoned ruins, they became the concern of individuals, private groups, the State of Texas, and, eventually, the National Park Service. Today, they form an urban park—a sanctuary of green in the midst of downtown San Antonio—and each mission also serves a distinct parish, with a priest and a religious community.

From 1978, when the park was designated, until 1983 when it opened, the National Park Service went through complicated negotiations with the Catholic hierarchy on how to protect and present both the historical value and the religious integrity of the missions. Today, the NPS worries about zoning boards, airplane noise, and adjacent development as it tries to determine just what is the essential experience of the San Antonio missions.

Park Ranger Betty Calzoncit thinks that the type of cooperative planning being instituted now is a forerunner of solutions that will become increasingly necessary as cities expand and more historical sites are protected. So, the missions are a portal to the past and an introduction to the future.

—Judith Freeman



"These pictures were taken in 1978, during my first visit to the missions. There was something serene about this window, a sense of harmony I tried to create by putting it dead center—usually a bad place for a subject in a photograph.

"In contrast, at the stairway I was taken by the harsh light at the top and the soft light next to it. As I took this shot I considered how many feet had climbed these steps over the years. Whenever I look at this picture I feel a padre has just passed a moment before."

Mission Concepción

Illustrations courtesy of the NPS

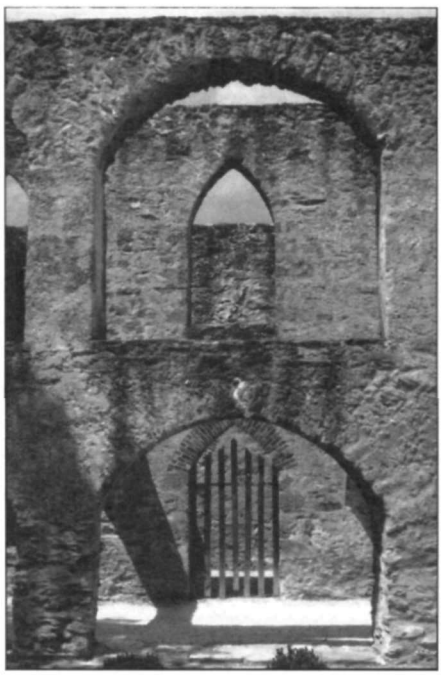
This stone church with its twin towers was dedicated in 1755, and it is the oldest, unrestored stone church in the country. The acoustics of the vaulted church are said to be on a par with the Mormon Tabernacle.

Concepción's exterior, like the other missions, was painted with Moorish designs in brilliant burnt sienna, light red, yellow ochre and cerulean blue—colors that were still bold into the 1920s. Inside are still some of the original frescoes.

The sculpted shell design of the infirmary window at left is also found throughout the missions. It symbolized baptism and was a favorite expression of Spanish faith. The Moorish arches and stairway above reflect the "plateresque" style of architecture that contrasts bare walls and ornamental doorways.

The friars who built here were men of commitment, zeal, and learning; but they were not trained as architects. The Indians working with them had been nomadic hunters who had been gathered into mission communities to learn European skills and religion. Yet, the subtlety and sophistication of their combined work is awesome.

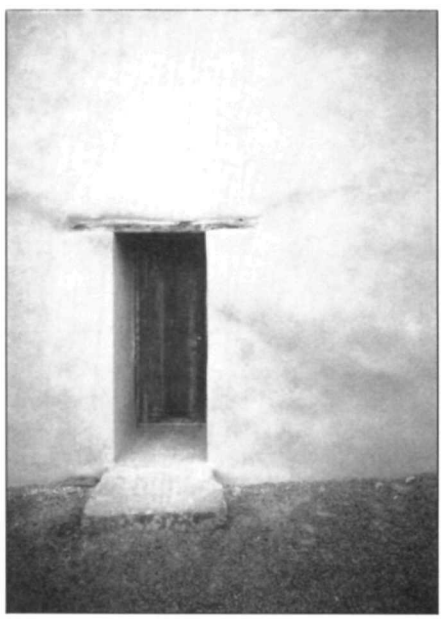
"It took a few minutes to get a symmetry between the arches, walls, and gate. I was struck by the handwork that went into making such a thing. Surely a labor of love, complex in construction and yet simple in beauty."



Mission San Jose

Called "the most beautiful church along the entire frontier of New Spain, the rim of Christendom," San Jose is the most elaborate of the missions, with a baroque facade, ornate statuary, frescoes, and a rose window. It was renowned for its beauty and its strength. The "Queen of the Missions" was a remarkably successful venture, economically as well as spiritually.

Here were the largest number of baptisms and neophytes. The mission walls were 600 feet long on each side, making it a "veritable fortress" against Comanche and Apache raids. At one time 1,200 acres were under irrigation, and there was a herd of more than 4,000 longhorns. An ingenious flour mill and the largest granary of all the missions allowed San Jose to support its own community as well as supply surplus crops to the military and townspeople.



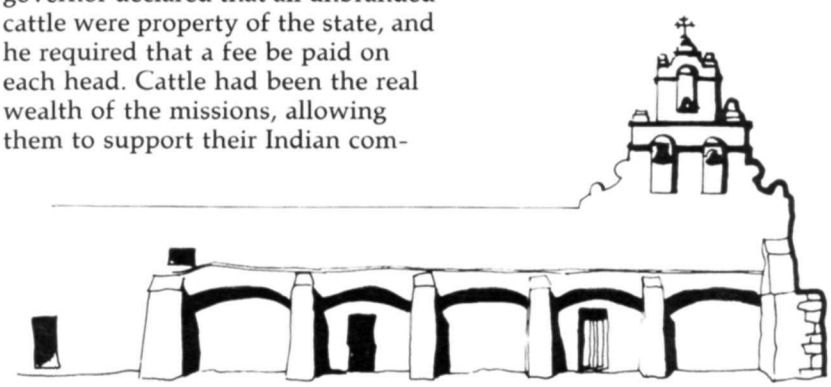
"A heavy thunderstorm was rolling in, so I took this shot quickly. I was struck by the texture of the wall compared to the bare ground, the set-in doorway and timber in the wall above the door. I responded to a strong sense of tactile sensuousness there."

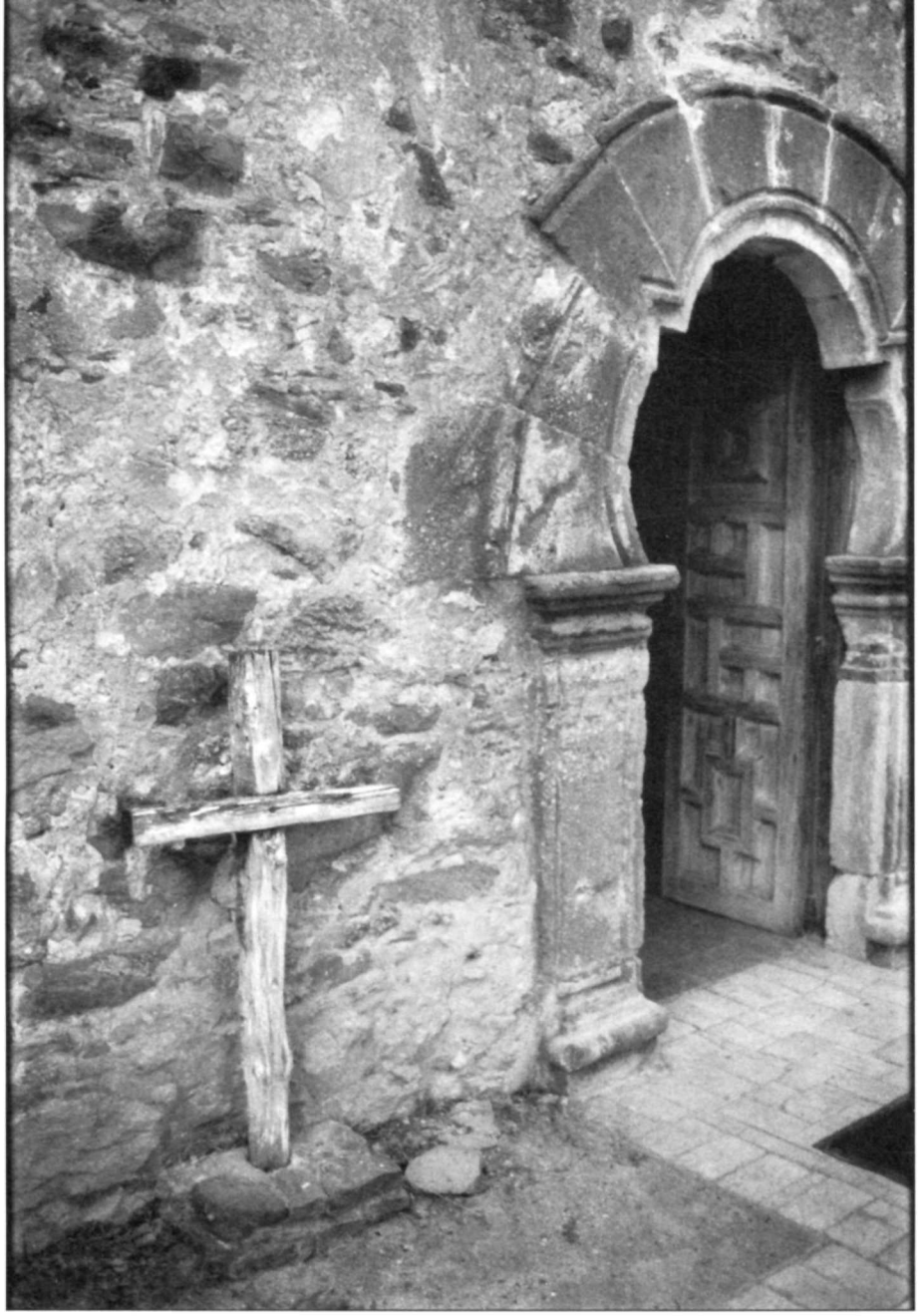
Mission San Juan

San Juan, the simplest of the missions, has been called undistinguished. Now we recognize in its plain beauty the subtlety and grace of traditional southwestern architecture. San Juan never enjoyed the prosperity of the other missions. Its beginnings were so humble that the church was not built separately, but as part of the surrounding protective walls; and there are no decorations or freestanding bell tower.

In 1780, when the missions were at their peak, the economic underpinnings of the entire mission system were destroyed. The Spanish governor declared that all unbranded cattle were property of the state, and he required that a fee be paid on each head. Cattle had been the real wealth of the missions, allowing them to support their Indian communities and to trade with the towns and the military. Now they could no longer support themselves, and they went into decline.

The Catholic Church lost interest in its New World missions. San Juan was partially secularized in 1794 and was placed under the administration of the Mission Espada. All the missions were fully secularized in 1824. By that time many mission buildings had become ruins, and for the next 16 years they were used as stables. It was not until 1840, when Texas gained its first bishop, that the restoration of the missions began.





"Like the other missions, Espada is still a functioning church. There was a wedding mass taking place while I wandered quietly outside. Again, I was struck by the elegant simplicity of the building, but even more by a feeling of continuity of spirit—that the parishioners here were similar to those who had come before and those who would come later. The mission is not a historic relic; it has a life of its own."

Mission Espada

The most southerly of the missions along the San Antonio River, Mission Espada was also the last to be established. Espada became a center of learning, and it is credited with the compilation of Texas's first textbook, the only written record of the Coahuiltecan Indian language. The Espada aqueduct irrigation system was so well engineered that it is still being used and is the oldest in the country.

By the mid-1800s, Mission Espada lay in ruins. Gradually small contingents of monks and priests were sent to all the missions to establish schools, hold services and, make what repairs they could.

In 1868 Father Francis Bouchu, although assigned to another church, began to work on Espada. He rebuilt walls, made records and drawings of fading artwork, and repaired statuary. Eventually, he left the most complete documentation extant of the art and architecture of the mission period, which has been invaluable for the restoration of all the missions. Bouchu's work was typical of the kind of continuing personal commitment that saved the missions from extinction.

Erasing Man's Mark in the Everglades

Florida's innovative plan lets water take its course

by Governor Bob Graham

Tradition in Florida has been broken—destruction of the Florida Everglades will be halted, even reversed. Our "Save the Everglades" program will change a time-honored obsession with ditching and draining of wetlands that predates Florida statehood.

In the past, the Kissimmee River, Lake Okeechobee, and the Everglades formed a 9,000-square-mile natural water system that stretched 220 miles from Orlando to the southern tip of the state. Rainfall around Orlando replenished a chain of several hundred lakes ranging in size from a few acres to 54 square miles. Water flowed southward through the natural sloughs that connected the lakes, eventually meeting to form the Kissimmee River.

During periods of low rainfall, the water meandered 98 miles through hundreds of oxbows on the Kissimmee's serpentine channel to Lake Okeechobee. When rain was heavy the river would overtop its banks and slowly flow overland through 40,000 acres of marsh on its way to the lake.

Sometimes, during the summer rainy season, Lake Okeechobee would also overflow its 32-mile southern shore, spilling water and nutrients into the Everglades. The water then flowed south through a 40-mile wide, 100-mile-long sawgrass marsh, at a rate of only a foot a day.

As water interacted with sawgrass debris, peat and muck were formed. Each foot of this rich ground took centuries to create. During the past 4,000 years the Everglades developed the largest single tract of organic soil in the world—more than 3,100 square miles in area and 12 feet deep.

South Florida was one of the most abundant wetland areas in the world. This environment attracted and supported more than two-and-a-half-million wading birds, as well as millions of migratory water birds. Ninety percent of the commercially valuable fish from the Florida Bay spend a portion of their life cycle in the estuaries of the Everglades. The fresh water flowing into these estuaries created one of the most productive fisheries in the world.

As the water flowed through the Everglades toward the coast, it recharged the Biscayne Aquifer (a natural underground water reservoir), the only source of fresh water for southeast Florida.

Today, the system has been so altered by engineering and development that the entire water flow has been disrupted. The Kissimmee chain of lakes has been interconnected by canals and their natural fluctuations taken over by engineering schedules. The Kissimmee River was channelized to become a flood-control canal.

Lake Okeechobee was also diked and put on a regulated schedule. Through a system of dikes and spillways its level was kept low enough to keep it from overflowing seasonally. In fact, the water level of the Everglades was drastically lowered. The flow, which was naturally seasonal and gentle, is turned on and off like a giant water faucet. Large sections of this ecological system are dry while others are flooded.

The consequences have been dire. At one time, salt water flowed inland and sullied the fresh water supply; nesting sites have been burned or drowned; deer herds have been left to starve. Wildlife populations have been decimated. These efforts to help society have caused more harm than good.

Interest in draining the Everglades is as old as Florida itself. In 1845, when Florida became a state, the first legislature declared the Everglades "wholly valueless" and asked Congress for assistance in land reclamation.

In 1879, Florida sold four million acres to Hamilton Disston, a Philadelphia manufacturer—and also promised Disston half of all the rest of the land that he could drain. By 1890, Disston had constructed a canal connecting the Caloosahatchee River to Lake Okeechobee and canals connecting the Kissimmee lakes, and he had partially dredged the Kissimmee River.

Toward the end of the 19th century, agriculture expanded to the partially drained land. The impetus for further flood control and drainage grew. Before the beginning of World War I, four major drainage canals had been dug from Lake Okeechobee through the Everglades into the Atlantic. In 1925, Lake Okeechobee was diked.

By 1970, most of the remaining Everglades had been surrounded by dikes and the Kissimmee River had become a canal. Tamiami Trail (U.S. 41) and Alligator Alley (State Road 84) ran across South Florida, blocking the sheeting action of water through the Everglades.

Golden Gate Estates, a massive subdivision of canals and inland waterfront lots, had been carved out of the Fakahatchee Strand. The East Everglades was developed for both residential and agricultural uses.

Drainage of the wetlands had been a great success—the development and economic health of South Florida can be credited in large part to it. Without it, the rich agricultural

Gene Li/South Florida Water Management District

Governor Bob Graham and Marjorie Stoneman Douglas survey the Everglades. Douglas made protection of the Everglades her life's task; Graham initiated a program to save it.

district south of Lake Okeechobee and urban southeast Florida could not exist. However, today, the needs for fresh water, recreation, open space, and a healthy environment for a rapidly growing population cannot be met unless the Kissimmee-Lake Okeechobee-Everglades system is revitalized.

By the year 2000 the Florida population will exceed 15 million. The Biscayne Aquifer, the only source of fresh water for this area, is supplied by the Everglades. As the population along the southwest coast nears a million people, the Big Cypress Swamp and the Fakahatchee Strand will become increasingly important for water supplies.

The economy of South Florida also depends on a healthy Everglades. In 1983, approximately 38 million tourists spent more than 22 billion dollars enjoying our warm weather, beautiful beaches, and clean outdoors. Visitors to Everglades National Park have averaged more than 600,000 a year. This represents 15 to 30 million in tourism dollars.

Agriculture in South Florida is a $2-billion-a-year industry. In 1984, over $750 million of sugar cane and vegetables were produced on the 700,000 acres of rich peat soils south of Lake Okeechobee. These soils owe their existence to natural water levels—as does a healthy environment, the economy, and the social system of South Florida. It all depends on water.

We began developing a plan for the Everglades in 1982 by analyzing existing conditions:

- The Army Corps of Engineers had converted the Kissimmee River to a 48-mile-long, 200-foot-wide, 30-foot-deep canal at the cost of 100,000 acres of wetlands.
- Waterfowl in the basin decreased by 90 percent and fish populations by almost 50 percent.
- The canal allowed water to flow into Lake Okeechobee 11 times faster than what was natural, without the cleansing process of its movement through the marsh.
- Wildlife was being increasingly jeopardized by the man-made floods and droughts. Between 1962 and 1983 woodstorks nested successfully only three years because extreme changes in water levels prevented them from feeding. Altered water levels during nesting season also caused declines in the number of bird species, including white ibis, anhingas, and limpkins.
- In 1978, 32 percent of the alligator eggs in Shark River slough had been drowned. The fisheries in Florida Bay and the estuaries of the southwest coast have diminished markedly during the past 20 years due to water management practices.
- Everglades National Park received either too little or too much water because flow had been reduced to avoid flooding new homes and farms.
- The Florida panther, one of the most endangered species on earth, faces extinction. Once prevalent throughout the southeastern United States, the 20 to 30 that remain all live in the Big Cypress Swamp, Fakahatchee Strand, and Everglades National Park.
- Alligator Alley dammed some areas of the Everglades. The highway traffic poses a threat to the Florida panther and all other animals in the area.

On August 9, 1983, we initiated the Save Our Everglades Program with this goal: By the year 2000 the Everglades will look and function more like it did in 1900 than it did when the program was initiated.

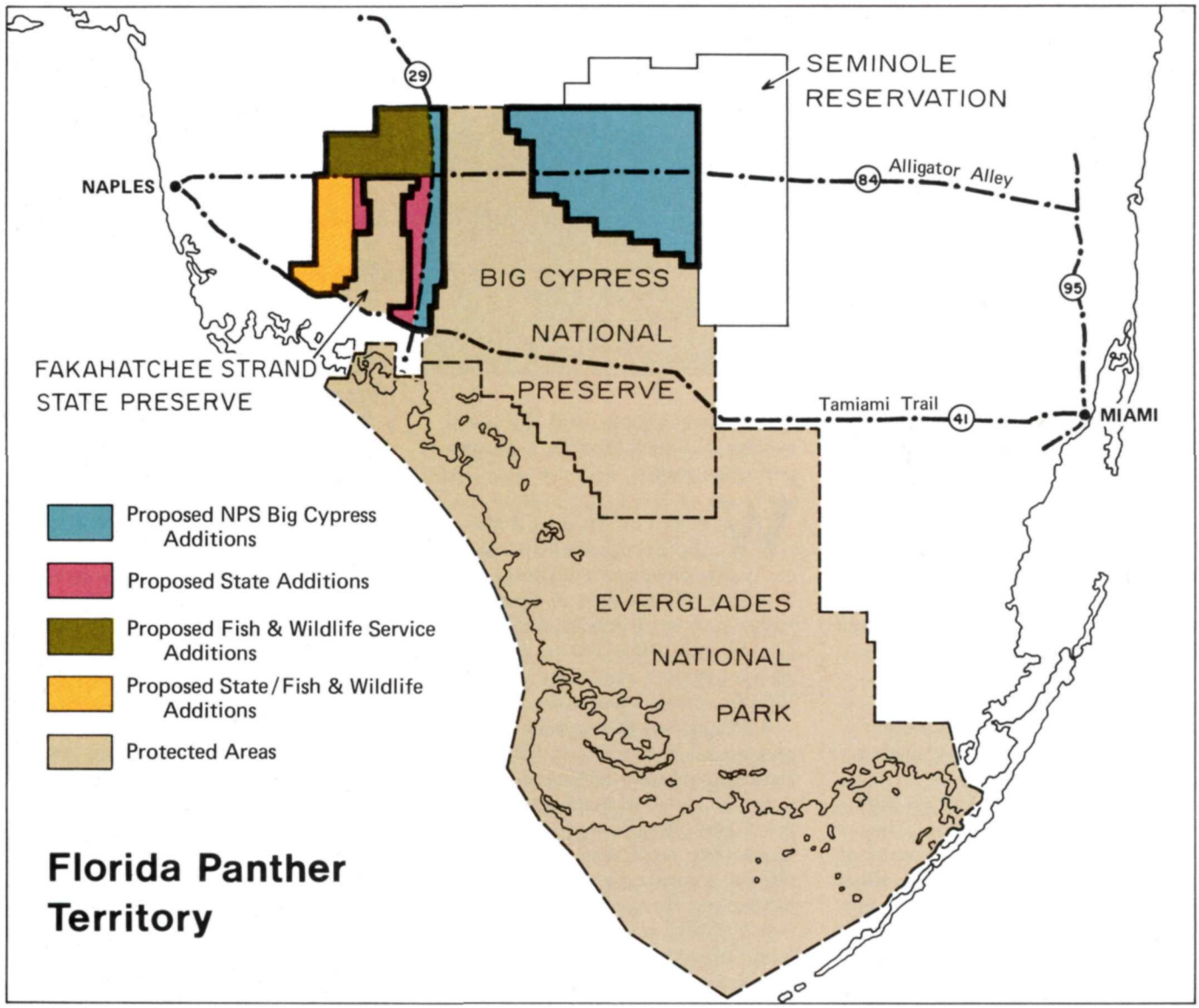
Our program includes the first attempt to restore a major federal canal—the Kissimmee River—to its natural condition. The initial phase will be to acquire the entire river floodplain. With construction this fall of three dams across the canal, the water will be diverted back into the old river channel. This will reestablish more natural water levels on a 12-mile stretch of the canal and restore 1,300 acres of marsh.

Working with the Florida Game and Freshwater Fish Commission, the South Florida Water Management District will restore natural water levels on a 60,000-acre area of Everglades that has been overdrained, much of it no longer functioning as a wetland.

Legislation has allowed experimental release of water into the park through the East Everglades for the first time in years. These actions, plus water releases to the park that are more seasonally appropriate, have already benefited wildlife.

Conversion of Alligator Alley to Interstate 75 offers an opportunity to correct existing hydrological problems and also to protect the endangered Florida panther and other animals by constructing safe animal underpasses.

It is planned that transportation funds awarded to the state will be used to purchase land as an addition to the Big Cypress National Preserve. This integrates the needs of people—a new road—with protec-



Parklands protect much of South Florida; federal and state land purchases would protect the rest of panther habitat.

tion of the environment in a mutually beneficial manner. Since 1983, the state has purchased 55,000 acres adjacent to Everglades park.

A major effort is being made to save the Florida panther from extinction by acquiring private inholdings in the Big Cypress National Preserve and establishing a Florida panther refuge in the Fakahatchee Strand.

The state has an extensive panther research program underway and is considering a captive breeding program. Panther warning signs are posted on highways through panther habitat, and night-time speed limits have been reduced. Brochures on the panther are handed to motorists at toll booths on Alligator Alley.

Save Our Everglades represents a challenge never before undertaken. The course to restoring natural water flow patterns to South Florida will be long and arduous. Florida cannot reach this goal alone. Federal and congressional involvement will be essential. Several leading national conservation organizations, including NPCA, are forming an Everglades Coalition to nurture public involvement.

With the help of an enlightened and concerned public we will save our Everglades. And we look forward to a day when protection of America's natural systems no longer requires innovative programs but uses tested, traditional approaches.

Governor Bob Graham continues to champion environmental reform in his second term. He has gained approval of the Save Our Rivers Act, which has brought more than 100,000 acres of wetlands into public ownership, and initiated the Save Our Coasts Program to purchase $200 million in coastal lands, as well as the Save Our Everglades Program.

South Florida's Land Puzzle

Federal, state, and private agencies purchase protection

The estimated 20 to 30 panthers still surviving in the South Florida region have the dubious distinction of being the nation's most endangered mammals. The decimation of their populations serves as a prime example of the short-sighted land-use decisions that create ecological crises. And the panther is not the only animal—or natural resource—threatened by current conditions in the Everglades.

Just as the Everglades ecosystem must be viewed as a whole, the job of restoring the basin to its former condition requires a comprehensive approach. Although the Save Our Everglades program, initiated by Florida Governor Bob Graham, emphasizes restoring water flow and wildlife habitat, South Florida's growing requirements for clean water, transportation, and recreational land have also weighed heavily in the planning process.

The Players: Public

The State of Florida cannot carry the burden of an ambitious restoration program by itself. The federal government and the private sector must cooperate for the program to succeed. Of course, a key factor is the amount of available funds. Congress, especially, will have to appropriate the amount of money necessary to bring the Everglades program to fruition.

Save Our Everglades requests that the National Park Service and the Fish and Wildlife Service—both under the Department of the Interior—acquire a substantial amount of the land in the Fakahatchee Strand just to the west of Big Cypress. Florida already has established the Fakahatchee Strand State Preserve and is committed to purchasing more land. A plan for cooperative acquisition among the two federal agencies and the state could preserve all panther habitat west of State Highway 29.

The Federal Highway Administration under the Department of Transportation (DOT) also has a key role to perform. The State of Florida wants DOT to redesign the proposed Interstate-75 (Alligator Alley) to include more wildlife underpasses than are contemplated in DOT's plans. The state has even offered to offset some of the costs of these underpasses.

The Department of Transportation is holding up wildlife underpasses, even though they would protect the panther.

Currently, the Everglades program is being held up by DOT. Even though the wildlife underpasses would further protect the panther, DOT says an amended environmental assessment is required before the highway project can progress.

Furthermore, because interstates have few access points along their routes, DOT would have to pay severance damages to property owners whose road access would be affected by I-75. Florida, however, would like to see that money applied toward the outright purchase of the property instead.

If the lands are purchased outright, conservationists propose that they be added to Big Cypress. This protection would limit development north of the preserve and would simplify problems associated with restoring sheet flow of water to the Everglades.

The Players: Private

Local, state, and national conservation organizations recently met at NPCA's Washington, D.C., headquarters to rejuvenate the old Everglades Coalition. Representatives from NPCA, the Sierra Club, Audubon, National Wildlife Federation, and other groups participated. The focus is to keep Everglades restoration moving forward on the federal level.

Two prominent land conservation organizations—the Nature Conservancy and the Trust for Public Land—are acquiring options to purchase several large tracts west of Big Cypress. These lands, which ultimately will be bought by the State of Florida, will be protected from purchase or development by speculators.

NPCA's National Park Trust is also contributing toward protections in South Florida. Through the generosity of a concerned Florida conservationist and the cooperation of a like-minded landowner, we purchased a 20-acre parcel in panther habitat. NPCA is currently considering several other key purchases, which eventually will be turned over to the National Park Service as part of Big Cypress National Preserve. Until then, the land will be managed as a wildlife preserve.

—Robert Pierce

You, too, can make a difference. Each tax-deductible contribution received for NPCA's panther project will be turned into land-saving action.

Send your donations to NPCA's "Save the Panther" fund. Use the enclosed envelope insert for your gift. Do it today.

Panthers at the Vanishing Point

Florida works to save America's most endangered mammals

by Juanita Greene

The sun was breaking over the feathery tops of the cypress trees, but it was still too dark to turn out the lights of the big produce truck moving through the wilds on the highway between Miami and Naples. Driver Ronald Townsend shifted his gaze to the grassy strip bordering the lonely two-lane road. A face stared back at him from the weeds.

"I knew when I saw it that it was a panther," he said. "I knew because I was born in these woods."

Townsend slowed and turned the truck around. "I know a panther doesn't just lay beside the road." He stopped near the big cat, between the pavement and a metal guard rail bordering a canal. "He got up and walked under the guard rail," said Townsend.

Fearful of approaching the panther alone, Townsend sped to the nearby town of Ochopee, found a wildlife officer, and returned to the scene. "The panther was still lying there, right where I left him. The officer couldn't see him, he blended so well in the grass."

Shortly, the area was alive with activity as officials from a half-dozen agencies, including the National Park Service, gathered to aid the stricken animal. In the commotion, the panther crawled into the canal and swam to the far bank. Unable to boost himself up, he held on with his front paws.

From a rowboat, a net was maneuvered under the panther to keep him from falling farther into the water. A veterinarian with tranquilizers arrived by helicopter. Soon the large, tawny cat was in the helicopter bound for Naples, his head resting on the vet's lap.

Thus began one of Florida's most intensive efforts to save the life of an endangered species. The panther, who was a victim of a highway hit-and-run accident, suffered crushed back legs, a broken foot, and a split tongue.

Two University of Florida veterinarians flew from Gainesville by private plane to assist in emergency treatment. They returned to Gainesville with the panther, by then named "Big Guy." At the university veterinary school hospital, orthopedists inserted steel plates in Big Guy's legs and foot in a series of operations.

"The surgery was just as sophisticated as any work done at the university medical center," said Tom Logan, chief of wildlife research for the Florida Game and Freshwater Fish Commission.

The state cannot afford to lose any panthers. The Florida subspecies, *Felis concolor coryi*, is down to a population of about 30.

State wildlife biologist Chris Belden, who has studied the Florida panther for many years as leader of the U.S. Fish and Wildlife Service's Panther Recovery Team, says this rare subspecies has several distinct characteristics. They include flecks of white on the shoulders, a cowlick on the back, and a crook in the tail.

Other distinguishing marks were observed much earlier by Charles B. Cory, former curator of Chicago's Field Museum, for whom the Florida panther is named.

"It is somewhat smaller and more rufous in color than its northern brethren, and its feet are smaller in proportion to the size of the animal," wrote Cory in 1896. As he observed, the average male weighs 100 pounds or more; and the average female weighs 10 to 15 pounds less than the male.

At one time there was a bounty on panthers in Florida. They were legally hunted until 1958. In 1967 they went on the first federal endangered species list. In 1979 Florida made it a felony to kill a panther. And in 1982 Florida school children chose the panther as the state animal.

Once the animal ranged across the southeastern states to the Louisiana-Texas border. Now it is found in only a few places in Florida and every panther death is met with increasing public anguish.

The highway is the biggest threat. Nine Florida panthers have been killed by motor vehicles in the last eight years. The animal is struggling to survive in a wilderness habitat increasingly surrounded by development. Its territory lies in one of the nation's fastest growing areas, just a half-hour's drive from Florida's heavily populated Gold Coast.

The people of Florida wonder and worry: can the state accommodate continued rapid growth and still save the panther?

The entire species numbers about two dozen. Florida is considering using Big Guy (right) in a captive breeding program.

William A. Greer

The task would be easier if the panther had chosen a more remote area to make its last stand. It survives in the wet backcountry of the South Florida interior because much of the area was nearly inaccessible until recent times. Although strays are occasionally found in other parts of South Florida, today the panther lives and breeds in three main areas: Everglades National Park; Big Cypress National Preserve, immediately north of the park; and a dense water jungle west of the preserve called the Fakahatchee Strand.

Most of the 30 subspecies of feline found in the United States—also known as mountain lions, cougars, pumas, and catamounts—exist in the West in numbers large enough to keep them off the endangered species list. Because of highways that divide its habitat and hunters that kill the deer it eats, the Florida panther is not as fortunate.

Despite the interest in the Florida panther, they are elusive creatures. The panther roams the Everglades, a sea of grass formed by more than a million acres of marshy wetlands in the eastern part of the South Florida interior. Watered by overflow from Lake Okeechobee and rivers to the north, the Everglades spreads out at the tip of the state.

In Everglades National Park, Florida panthers are most concentrated in an area called the "Hole in the Donut," which once was cleared and farmed. This area supports a sizable population of deer, the panther's principal food.

Yet, not much is known about park panthers, said Oron Bass, park wildlife biologist. Two years ago, the Florida game commission verified the presence of two adult males, two adult females, and one subadult female in the park.

To assist in a study of the park's panthers, the National Park Service hired Texan Roy McBride, a noted panther tracker who uses specially trained dogs that can track and tree panthers. But the panthers in the Everglades study were not treed, tranquilized, and equipped with radio collars, as happens with some of the panthers in Big Cypress National Preserve and the Fakahatchee.

The study of the park panthers is but one of many underway to rescue the animal from extinction. The state game commission, administered by a five-person board appointed by the governor, has many recommendations to consider, including the status of Interstate-75.

The plan to complete Interstate-75 by upgrading a two-lane toll road called Alligator Alley is being held up because of concern for the panther. The Alley, built in the 1960s between Fort Lauderdale and Naples, cuts across the bottom of the state and is one of only two east-west roads bisecting the Everglades and the Big Cypress Swamp. The other is the Tamiami Trail, which Big Guy was trying to cross, completed in 1928 after a number of years of arduous dredging.

Air plants of passionate red cling to the branches. Ferns choke the damp forest floor. Hidden among this tangled and difficult terrain is the last population of Florida panthers.

The state has asked the Federal Highway Administration to redesign the interstate, which will cut through the Fakahatchee Strand as well as Big Cypress. It wants 23 underpasses and 13 bridge modifications to facilitate wildlife crossings and help prevent road kills. One federal official said the whole 76-mile interstate link might be abandoned because of the additional cost of the wildlife underpasses and other proposed environmental improvements.

Although some panthers make their home in Everglades National Park, even more appealing to them is the Big Cypress Swamp, a 2,400-square-mile area north and west of the Everglades, only part of which is in Big Cypress National Preserve. The 547,000-acre preserve is administered by the National Park Service in cooperation with the state game commission, which is in charge of panther research in all areas outside Everglades National Park.

Few big cypresses are left in Big Cypress Swamp, but small cypresses spread across much of this land. From the air, low ground covered with cypress mounds looks like rolling hills. And long, thin stretches of tropical hardwood swamps—called strands—lace the area. In between, higher ground supports forests of pine and sabal, the ubiquitous palm with the feather-duster top that is Florida's state tree.

Giant woodstorks, another endangered species, find sanctuary among the cypresses. Air plants of passionate red cling to the branches. Ferns choke the damp forest floor. In the strands grow orchids and other plants found nowhere else in North America. The most stately of palms, the tall royal, is also native to the strands. Occasionally, amid all this greenery, the limestone that underlies the area crops out in bald spots on the surface.

Hidden among this tangled and difficult terrain is part of the last population of Florida panthers. Because there are so few of the animals left, the Florida game commission has come up with new regulations to better protect the panther's habitat within Big Cypress Preserve. These regulations include restricting hunting dogs, all-terrain tricycles, some other rubber-tired vehicles, and airboats in the preserve.

Efforts to protect the panther have upset Florida hunters. Although it is prohibited within Everglades National Park, hunting is allowed in Big Cypress and in state conservation areas. So hunters have roamed the wilds outside the park at will for generations, taking deer and wild hogs. They bitterly protest the new

Florida panthers are at home in the wetlands of Big Cypress Swamp, part of which is a national preserve (right). Inset: researchers tree a panther in order to radio-collar the animal. So far, the Panther Recovery Team is radio-tracking five cats.

Ed Cooper; Inset by Peter B. Gallagher

Michael H. Francis

Highways, housing tracts, industry, and agriculture have pushed the panther into the recesses of Big Cypress, the Fakahatchee, and Everglades.

game commission regulations for Big Cypress National Preserve.

Easily visible from the air are the countless tracks through the preserve made by thousands of off-road vehicles that cross it continually during hunting season. The contrast with the adjacent, undamaged national park area—where no off-road vehicles are allowed—is startling.

The new rules came after the governor's Panther Technical Advisory Committee asked the game commission to reduce the hunting pressure in the Big Cypress Preserve. The committee expressed concern that hunters may be competing with the panther for deer.

Committee members fear that lack of proper nourishment is responsible for a form of distemper, called feline panleukopenia, found in the panther population. The distemper could affect the reproductive rate of the species, said Tom Logan. The study of panthers inside Everglades National Park, where no hunting is allowed, may answer some questions about the relationship of hunting to the disease.

Despite the request of the advisory committee, the game commission has decided to make no changes in the hunting quotas until it has completed a long-term, extensive study of the deer population in the preserve. Quotas on the number of deer taken would further anger the state's powerful hunting constituency.

Game Commission Director Robert Brantley has said he fears if the commission moves too fast with severe hunting restrictions in the Big Cypress Preserve, some hotheaded person might seek out and kill panthers in retaliation.

The hunters played an important role in congressional approval for the purchase of Big Cypress National Preserve in 1974. In return, they were guaranteed continued use of the preserve.

Oil companies and mineral rights owners also supported the purchase after winning a similar guarantee. As a result, much activity deemed detrimental to the panther takes place in the preserve.

To further minimize adverse impacts, the state required Exxon Company USA to build a $4.5-million pipeline from its new well field at Raccoon Point, in the heart of panther habitat on the eastern edge of the preserve. The state figured that piping the oil out rather than trucking it out would keep disturbances to panther habitat at a minimum and would cut down the risk of oil spills.

In order to allow for oil well construction, an all-weather, 11-mile access road was approved. The entrance to the road—at the Tamiami Trail—is barred by a locked gate; and the entrance and road are guarded around the clock at Exxon's expense.

Hunters heatedly objected to the road, saying that it formed a barrier for both hunters and wildlife. Each group—the oil company and the hunters—blames the other side for imperiling the panther.

Peter B. Gallagher

Larry Lansford

Dr. Melody Roelke (above), of the Panther Recovery Team, searches in the Fakahatchee Strand for a radio-collared cat. The collar helps researchers track the panther's movements. In May, the team got help from the Florida Game Commission, which banned the use of all-terrain vehicles in Big Cypress Preserve, restricted the use of hunting dogs, and put quotas on the number of people allowed to hunt deer.

Eventually, the state wants to return the oil development area to its natural state. When Exxon closes the field, it will have to remove the road and the rigs and restore the area to as near its original condition as possible.

For now, however, the rigs and pipeline remain in panther habitat. Workers at the Raccoon Point field occasionally see the panther and often find its tracks on the sandy well pads. Some have developed a keen interest in the elusive neighbor, and carefully photograph the footprints it leaves behind.

Although the panther has more than two million acres of public land to roam in South Florida, parts of its habitat may be lost to development. Some of the prime habitat is in private hands and might be turned into vegetable fields or improved pasture. One 530-acre tract often crossed by panthers has been approved by Collier County for a Ford Motor Company test track.

On the positive side, the U.S. Fish and Wildlife Service is considering the purchase of 37,000 acres in the Fakahatchee Strand north of Alligator Alley. Florida is expanding its 50,000-acre preserve south of the Alley. And Governor Bob Graham, as part of his Save Our Everglades program, has proposed purchasing 165,000 acres on either side of the planned interstate to protect those border areas from a rush of development.

In addition to efforts that would protect the panther in the wild, the rescue of Big Guy and his subsequent recovery has heightened the state's interest in a captive-breeding program. Originally, the game commission planned to return Big Guy—now renamed a more dignified "Jim"—to the wild. His condition, however, is not good enough; and he still is in seclusion at the game commission's research lab in Gainesville.

"We are trying to make arrangements for some place to develop the captive propagation part of the program," said Logan. "The female would have to come from the wild."

Offspring from a captive-breeding program would be released in other areas of Florida considered good panther habitat, such as large ranches, forests, or swamps. The program would take careful planning and the close cooperation of private landowners.

Telemetry shows panthers have predictable paths across highways; an underpass could have prevented the accident to Big Guy (above).

Captive breeding may be part of the solution to protect the panther. Expanding protections for its habitat and constructing underpasses to the proposed interstate are others. Whatever decisions are made in the next few years will affect the Florida panther for all time. The road to extinction still is open.

"Civilization in general is the main threat to survival of the panther," says Logan. "Virtually everything we do infringes on the animal."

Juanita Greene, environment writer for the Miami Herald, *last wrote for* National Parks *on water problems in Everglades National Park.*

Bordering on the Magnificent

From Kluane to Cape Breton Highlands,
Parks Canada celebrates its 100th year

Bordering on the Magnificent

From Kluane to Cape Breton Highlands, Parks Canada celebrates its 100th year

By Barry Sadler

The origins of Canada's national park system lie in a chance discovery made in November 1883, near the present town of Banff. Frank McCabe and William McCardell, two workers from the transcontinental railway then being driven through the front ranges of the Rocky Mountains, found some natural hot springs near the base of Sulphur Mountain. Now known as the Cave and Basin, this area formed the basis for what was to become Banff National Park.

Soon after this discovery, other railway workers began to use the springs, and a number of shacks were erected nearby. During 1885, conflicting claims for title to the hot springs attracted the attention of the federal government in Ottawa.

On November 25, 1885, the government reserved ten square miles around the hot springs from "sale or settlement or squatting." The Hot Springs Reservation was the first step toward the establishment of a national park.

A survey noted that the area surrounding the reserve "presented features of the greatest beauty and was admirably adapted for a national park." As a result of this survey, in June 1887 the reserve was expanded to a 260-square-mile oblong block of land called Rocky Mountains Park. (In 1930 the park name was changed to match the townsite of Banff. Originally known as Siding 29 on the railroad line, Banff was given a Scottish name because many of the railway executives of that time were Scots.)

Overleaf: Ed Cooper

Overleaf: Moraine Lake, in the Valley of Ten Peaks, reflects the splendor that moved Canada to preserve Banff in the late 1880s.

Parks Canada/J.R. Graham

Point Pelee, on the shores of Lake Erie, is a migration stop-off for millions of birds, such as this prothonotary warbler.

In the previous year, other land reserves had been set aside along the route of the Canadian Pacific Railway. These areas laid the foundations for Yoho and Glacier national parks, as well as for the later expansion of Banff.

Catalysts for the national park idea in Canada were the same as those at work in the United States. The country's natural and scenic wonders—mineral springs and the vast landscapes of the Canadian Rockies, in the case of the first parks—were deemed worthy of protection.

Initially, the primary purpose of Rocky Mountains Park was to provide for visitor use and enjoyment. In this respect, the park's enabling legislation borrowed heavily from the Yellowstone National Park Act. Landscapes were protected to support recreation and tourism rather than for compelling environmental principles.

Rocky Mountains Park served as a prototype for other reserves; and, until 1914, park management centered on tourism. The overriding intent was to develop a resort—centered on the spa at Banff—that would attract an international clientele.

The town of Banff was surveyed and settled; coach roads to the Hot Springs and other points of interest were constructed; and visitor accommodations were provided. A zoo and an animal paddock were completed and landscape "improvements" included the introduction of exotic plants.

The Canadian Pacific Railway (CPR), through investment and advertising, played a major role in the development and promotion of Banff National Park. CPR was also influential in securing other park reserves in the region.

CPR's park alliances were similar to those forged between American railroads and western parks such as Yosemite and Yellowstone—and for the same sort of reasons. The company had a monopoly on access to the Canadian Rockies, and it used this edge to build hotels and related facilities at Lake Louise, Field, and Glacier House.

The first decade of the twentieth century saw increasing numbers of park visitors. This led to the expansion of Banff, Yoho, and Glacier national parks—measures that were supported by CPR.

Banff grew from 260 to 5,000 square miles. This enormous increase included areas where coal mining and logging occurred.

The inclusion of these activities, which are incompatible with conservation, illustrates the attitudes of that period. Destruction of vegetation and illegal hunting of wildlife went virtually uncontrolled, despite park regulations. People also believed that, in order to make the town of Banff suitable for tourism, nature had to be tamed. Wildlife

Brian Milne/First Light

North American red foxes (above) are indigenous to Canada's northern climes. The U.S. had to import European foxes for sport-hunting.

was controlled by fences, and vegetation was manicured.

Looking back to the geography and ethics of the frontier, the striking thing is not incompatible uses, but that parks were established in the first place. By 1914, the system contained eight national parks: six in the western mountains, one on the prairies, and only one—St. Lawrence Islands—in the more heavily settled East.

Early in the 1900s, the first phase of Canada's national park development was supplanted by more well-considered conservation planning. The conservation ethic, which spread from the United States, resulted in several important reforms that were initiated between 1908 and 1914. Most notable was the hiring of wardens to enforce stricter hunting and forestry regulations.

Banff National Park's boundaries were drastically reduced to conform to the watershed and thus permit more efficient management. This move was reinforced when the government in Ottawa created a strong, centralized national park service. The park service, now known as Parks Canada, curtailed local autonomy in decision making.

The period between World Wars I and II was characterized by expansion of the system and consolidation of policies. During this time, the number of national parks doubled and the types of ecosystems became more diversified. New parks included Wood Buffalo in the north; Prince Albert and Riding Mountain in the interior plains; and Prince Edward Island and Cape Breton Highlands in the maritime provinces.

Incompatible uses were gradually phased out of existing parks, although mines and other industrial plants operated in Banff National Park throughout the 1920s. A growing emphasis on conservation fostered the gradual regeneration of wildlife and vegetation destroyed during the earlier, unregulated era of park development.

A benchmark of this period was the passing of the National Park Act in 1930. According to the law:

"The Parks are hereby dedicated to the people of Canada for their benefit, education and enjoyment . . . and . . . shall be maintained and made use of so as to leave them unimpaired for the enjoyment of future generations."

This law is the mainstay of park philosophy, though the dual mandate of preservation and use has always been a source of tension.

Tourism and the facilities to accommodate park visitors continued to grow during the 1920s and 1930s. Roads were built to connect the Rocky Mountain parks of Banff, Jasper, Yoho, and Kootenay. And the automobile helped bring urban conveniences to these distant and rugged areas.

Winter sports were already a long-standing tradition in Banff. But the interwar period saw the development of skiing camps at Sunshine, Lake Louise, and Mount Norquay. All of these are now major downhill skiing areas.

During this era, facilities were minimal and visitor pressures relatively modest. In retrospect, it is easy to see why park publications of the day could refer to Banff National Park as providing "rigid sanctuary conditions," and in the next passage state that Banff was "unsurpassed in the field of outdoor recreation."

Both conditions could apply, as long as the major parks remained remote and inaccessible to the bulk of the population. All of that was soon to change.

Seeds of the modern dilemma were sown in the postwar boom. An expanding population—with increased leisure time, greater disposable income, and the mobility conferred by the near-universal ownership of private automobiles—brought the potential conflict between park preservation and visitor use into progressively sharper focus.

Between 1950 and 1960, visits to Banff National Park doubled. By 1967 they had doubled again, and the figure had reached two million.

Canada's national parks were threatened by their own success.

In response to visitor demands, accommodations and services expanded accordingly. Because of the 1960s ski boom, new equipment was installed at the parks' existing downhill areas. By the late 1960s, private enterprise was putting on the pressure for more development. Local and Calgary business interests made applications to stage the 1968 and 1972 Winter Olympics at Banff.

The arguments surrounding the plan to bring the Olympics to Banff marks a critical watershed in Canada's national park history. For the first time, use and development stirred public concern and political controversy.

An effective conservation lobby was mounted. This intervention marked one of the first waves of the gathering tide of Canada's new environmental movement. During the late 1960s, groups of citizen activists emerged to focus attention on the inadequacies of the national park system.

In 1968, at the first Canadian Conference on National Parks, people pointed out two obvious flaws in the system. First, it was not representative of all the national regions and landscapes of Canada. Second, parks such as Banff were trying to meet too many demands, trying to be all things to all people.

Parks Canada attempted to meet these challenges during the 1970s with varying degrees of success. It began to round out the system by establishing new parks in the northern territories. (The Yukon and the Northwest Territories are not provinces and are administered directly by the federal government.) New parks were added in the central and eastern provinces where there was—and still is—a serious imbalance between the number of visitors and the amount of parkland.

Between 1968 and 1972, nine new parks were created, followed by four more between 1978 and 1984. The newest park, Northern Yukon, stretches west from the Babbage River to the Canada-United States border where it adjoins the Arctic National Wildlife Refuge. Both areas protect the calving grounds of the vast Porcupine caribou herd, as well as some of the most spectacular landscapes on the continent.

Around timberline, the slopes of Mt. Edith Cavell in Jasper National Park are covered with heather and other wildflowers.

Ed Cooper

The earlier expansion was something of a crash catch-up program. By the late 1960s, however, Parks Canada had adopted a method for identifying the types of new parks the system needed. These requirements were based on the concept of "natural regions" conceived by the U.S. National Park Service.

From 1950 to 1960, visits to Banff doubled. By 1967 they doubled again and reached two million. Canada's national parks were being threatened by their own success.

Canada is divided into 39 natural regions; and present policy stipulates that each region merits national park representation. The present park system, however, has a number of shortcomings.

Some natural regions, notably the Rocky and Columbia mountains in the West, are overrepresented. On the other hand, ten natural regions have no representation, though all have candidate areas worthy of inclusion.

Current plans call for 20 new parks to complete the system: ten in the northern territories and ten in the provinces. Parks Canada would like to add five in this centennial year. Completing the system by the year 2000 is not impossible.

Assembling parcels of land in the settled areas, however, is both a costly and a complicated task. Grasslands National Park—two separate blocks in southwestern Saskatchewan along the international boundary—was established in 1981 after nearly 20 years of negotiation.

Although they are within federally controlled territory, northern parks must be planned with due regard for the traditional rights and uses of native people. For instance, at Auyuittuq—on Baffin Island, just across from Greenland—subsistence hunting is allowed.

Parks Canada must also decide how to accommodate increasing numbers of visitors while preserving the natural and cultural resources of the parks. The 1979 *National Parks Policy,* the most recent planning document, does a creditable job of addressing preservation and interpretation in the system.

Critics, however, have been quick to point out the inconsistencies between park policy and the way that policy has been carried out in recent decisions on tourism and recreation. Central to this issue is the management planning process—the mechanism for specifying visitor developments and activities.

Launched in 1969 and 1970, an early series of "provisional master plans" for the four mountain national parks (Banff, Yoho, Kootenay, and Jasper) generated a fair amount of controversy, largely because of a proposal for a new resort village at Lake Louise. This scheme was halted in 1972 after a further round of stormy and ill-tempered public hearings.

Four years later, another minor controversy erupted over plans to expand the Sunshine ski area. The plans included greater summer use of the area's alpine meadows. In this instance, the proposals went ahead as part of a long-range program to establish overall limits for use and development.

The next chapter in this story is presently being written. In 1982, Parks Canada began finalizing their general management plans for Banff, Jasper, Kootenay, and Yoho national parks.

Three options were developed:

- Option A basically emphasizes

Canadian environmentalists believe that more wild lands, such as Mt. Thunderhead in the Yukon, must be protected.

Patrick Morrow/First Light

maintaining the natural character of the parks;

- Option B bases future visitor use on existing facilities and services;
- Option C stresses increasing the role of tourism and meeting the needs of visitors.

Public review indicated that approximately one-half of all respondents preferred Option A and approximately one-third favored Option B.

The initial disposition of Parks Canada is toward the second option; but the implications are by no means clear. For example, just how much and what kind of expansion from the existing services base will be allowed?

A public outcry is underway and the final decision has not yet been made. The path that is chosen will certainly affect Canada's 31 national parks and, undoubtedly, the much larger number of provincial parks, historic sites, and other heritage reserves.

Imminent management decisions concerning Banff—the national park where it all began and still the symbol of Canada's national park system—may prove to be the bellwether for the next hundred years of Parks Canada.

Barry Sadler serves as the director of the Institute of the North American West; and he is a consulting associate with the Banff Centre School of Management.

Sadler is also a member of the project management team for Heritage for Tomorrow, which also includes Gordon Nelson, Robert Scace, Gilles Lemieux, and Susie Washington.

CANADA'S PARK HERITAGE IN THE MAKING

The centennial of Canada's national parks provides an opportunity to celebrate the achievements to date. Canadians must also explore innovative ways of safeguarding our timeless natural and cultural assets. Heritage for Tomorrow, a national grassroots organization, was set up for that purpose.

Heritage for Tomorrow has established a series of public meetings in the provinces and northern territories. The purpose of these caucuses is to prepare reports that will make clear what each of these regions needs to preserve its natural and cultural resources.

The organization has identified nine major issues relevant to the future of Parks Canada. They are:

1. Understanding the meaning of heritage;
2. Ideology and a broader view of heritage;
3. Wilderness, wildlife, and wildlife habitat;
4. Completing and extending the heritage system;
5. Managing land use in and around heritage areas;
6. Tourism, development, and heritage areas;
7. Planning and management alternatives;
8. Politics, planning, and management;
9. International aspects of heritage areas.

September 4-8, 1985, the Canadian Assembly will meet at the Banff Centre in Alberta to discuss and act upon the suggestions for Parks Canada presented by Heritage for Tomorrow.

Images

Cold Shots

by Marjorie Corbett

Canadian photographer Pat Morrow is best known for his dramatic pursuit of the highest peaks on seven continents. With only one left to conquer—Vinson Massif in Antarctica—he has spent much of the past year preparing for his capstone, most recently by trekking to the North Pole.

Yet, the peaks are not the only reward. The people who live in those remote, vertical landscapes lend an intimate touch to his adventures and his photographs. Over the years, his subjects have included national parks of both Canada and the United States.

How did you get involved in the project to scale the highest peaks on all seven continents?
After the Everest climb in 1982, I realized I had already done three of them—North America, South America, and Asia. It just seemed a logical project to pursue. There were only four left and they were easy.

Are you documenting this project on film?
Yes. I am also working on a book about it. I have most of the chapters written, and it will be heavily illustrated.

Have you covered any of the national parks in the United States?
A fair amount. The one place I've done a lot of work in is the deserts of Utah and Arizona—canyon country. I've spent months down there and haven't even scratched the surface yet.

Have you recently returned from the Pole?
We are just back from the North. We were training for the trip to Antarctica. We flew up to the Pole and stayed in little communities, where

Baiba Morrow

"Getting to shoot in interesting places, like the Pole, you need to know who to talk to."

we got the flavor of the North. We also climbed a mountain on Ellesmere Island. Five of us were dropped off and had the chance to use our equipment to see if we could deal with conditions similar to those in Antarctica. We made the ascent of the peak on the western side, which overlooked the ocean. It was 57 below zero.

Did you take pictures under those conditions?
Somehow, we kept the cameras alive. They froze up fairly quickly, but we kept rotating them. The cold is hard on the body of the camera because there is all kinds of condensation when you pull the camera from its warm case. That's something you have to learn, how to carry and protect your equipment in severe conditions.

What is your favorite equipment for wilderness shots?
I have settled on a Pentax MX. It has a small, lightweight body with manual settings, which helps when you're taking pictures in sub-zero temperatures. When skiing, it's crucial that your cameras and equipment are lightweight. I can usually get away with only two lenses—a 28mm and an 80-to-200mm zoom.

You have been working in cold northern climates a lot, is that becoming a specialty?
I don't really gravitate toward cold climates, but my work often takes me there. I prefer moderate climates like anybody else, but I've done a lot of ski photography, so I have learned to cope with the weather.

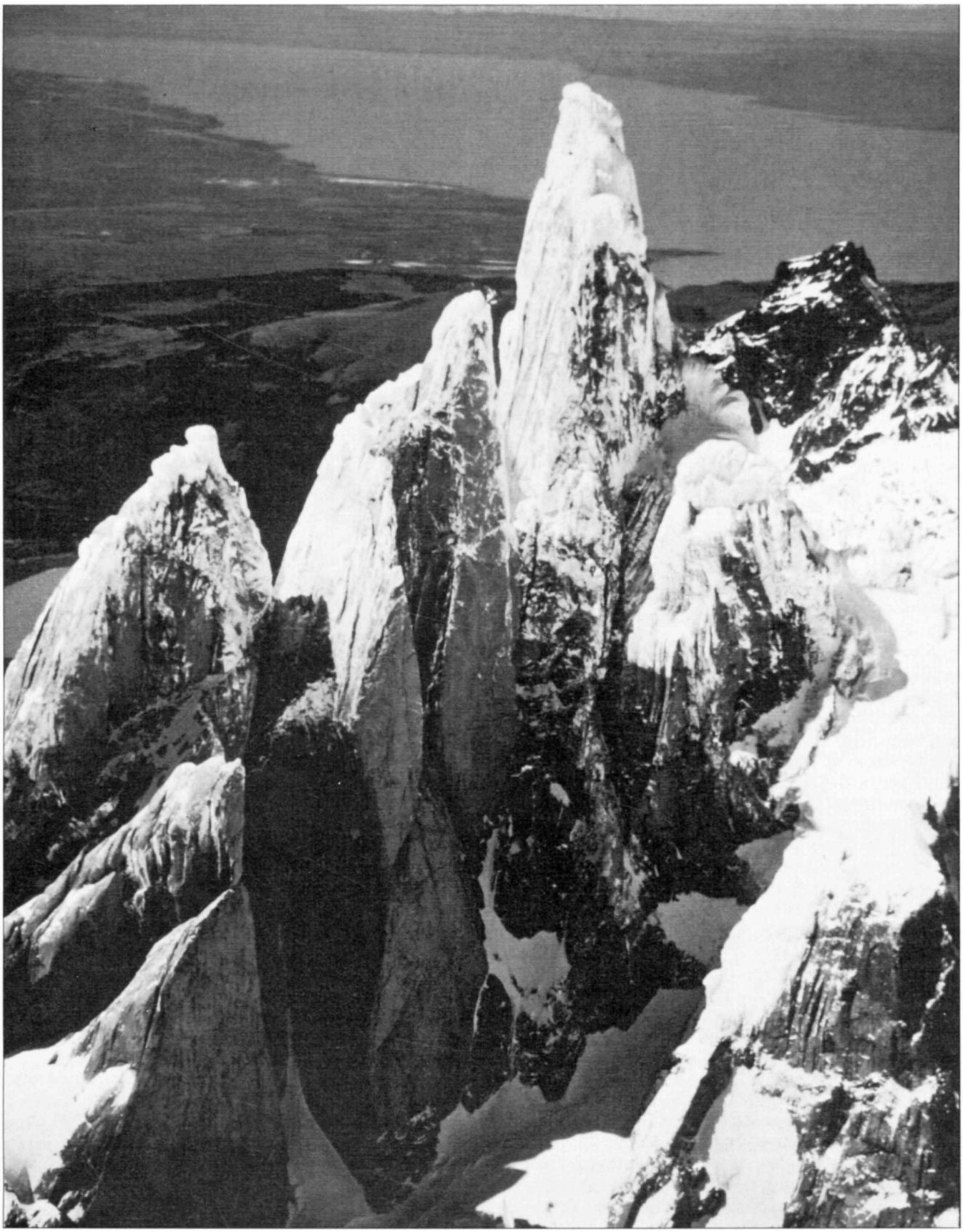
How and where did you get your start in photography?
I grew up in Kimberly, British Columbia, a small town at the edge of the Purcell Mountains. As a teenager, my photography developed along with my climbing interest. I studied journalism in Alberta and spent several years working at a local newspaper as a photographer, where I learned how to talk to people.

The people you were photographing?
No, the people I had to talk to to set up shoots. Getting around to interesting places, like the trip to the North Pole, you need to know who to talk to.

You go to some rather remote spots, do you see your settings through the people who live in those places?
Yes, what makes it so fascinating are the people who live in those mountains. These people are true mountain people. Their world is either up or down once they step outside their doors.

The subjects you choose are unusual enough that it requires inside connections to get to some of these places?
When I travel to a remote culture, I try to find a person from the area who can act as interpreter, guide, and who can help get me there in the first place. I do a lot of research before I leave for a remote area, that way I am prepared for the worst. And the best, too.

Marjorie Corbett is a regular contributor to National Parks.



Cerro Torre, Argentina; photo by Pat Morrow

NPCA Report

William Penn Mott Sworn In As New Director of NPS

National Park Service

William Penn Mott, the new director of the National Park Service, has served on NPCA's Board of Trustees for the past four years.

William Penn Mott has spent most of his life creating, managing, and developing funding for parks, first for the National Park Service and then for his home state of California. Now he has the job of managing the world's foremost park system. On May 29, Mott was sworn in as the new director of the National Park Service by Interior Secretary Donald Hodel.

Hodel has said of Mott, "[He] is known the world over for his innovative approaches to developing and protecting the parks while helping them to serve better the needs of people."

After receiving degrees as a landscape architect from Michigan State University and the University of California-Berkeley, Mott entered the NPS where he helped create Crater Lake and Sequoia-Kings Canyon National Parks, and Death Valley National Monument. From the 1940s through the 1960s, he took on the challenge of developing a park system for the city of Oakland and then for the East Bay Regional Park District. His innovative work attracted the attention of then-Governor Ronald Reagan, who appointed Mott as head of the California state park system.

Under his direction, the California park system—one of the largest and most well developed in the country—doubled in size. During his 1967-1975 tenure, he also charted a new course by being the first to hire women park rangers.

Mott has helped develop park system plans for Australia and Costa Rica; has made Oakland Zoo and surrounding Knowland Park a self-supporting resource for that city; and, as president of the California State Park Foundation for the past ten years, was instrumental in raising more than $50 million to preserve and expand California's park system.

Until his appointment as NPS director, Mott served on NPCA's Board of Trustees. As such, one of the goals for a healthy park system that he has long emphasized is the concern of people for their parks. Mott believes that educating citizens to the values of the park system, and getting them involved in that system will heighten their commitment to preserving parks for themselves and for future generations.

C & O Canal, Rock Creek Saved from Hotel Project

On May 30, a federal judge ruled against the National Park Service and a development company, denying construction of a major hotel and office complex along Rock Creek Park in Washington, D.C. Environmental organizations and attorney Cornish Hitchcock have won the first round in their ongoing battle against plans to construct a 52-foot hotel and a 60-foot office building.

"It's an important ruling for the national parks," said Hitchcock, "because it recognizes that land resources are scarce and should be expanded; but not at the expense of land already in the National Park System.

"This decision puts limits on the National Park Service's ability to barter away park resources."

The buildings would have blocked views and disturbed the waterfront scenery of Rock Creek Park and C & O Canal National Historical Park, both National Park System areas that wind alongside the Potomac River.

The problem began when the NPS agreed to rescind a 20-foot height restriction that it holds on the land that Rosewood Hotels, Inc., wanted to develop.

The 20-foot height restriction was imposed in 1938 when the NPS acquired the C & O Canal for development as a national park area. The NPS allowed the parcel in question to remain in private hands, but insisted on the height restriction in order to protect the visual integrity of the C & O Canal and Rock Creek Park, which was then nearing completion.

In exchange for rescinding the height restriction, the NPS would have acquired permanent access along the riverfront and Rock Creek. And the developers had agreed to donate $1 million for landscaping parkland upriver from the hotel complex.

The NPS was working toward an overall plan that could eventually link all the parcels along the Potomac River as it flows past Washington, D.C. As part of this green-space plan, the District of Columbia would donate its riverfront holdings to the NPS.

The NPS agreed to the exchange because it said the Secretary of the Interior has the right to make such exchanges. U.S. District Judge Barrington Parker disagreed, saying that—by law—the exchange cannot "alienate property administered as part of the National Park System."

By rescinding the height restriction as part of the exchange, the NPS would have alienated territory—in this case, air space and scenic easements—under its control. The National Park Service and the developer have already filed an appeal.

Manassas to Get Help from Civil War Relic Hunters

The 312-acre Brawner Farm at Manassas National Battlefield Park in Virginia has, in past months, suffered from the intrusion of relic hunters and the subsequent disappearance of Civil War artifacts. Now, a local group has offered to help the National Park Service extract and catalogue national park artifacts.

Part of the problem was that the farm had been designated as parkland, but never purchased. To protect the farm from relic thieves, the court recently ruled for a Declaration of Taking, in which the property immediately transfers to the NPS, and the heirs of the former owner receive fair-market value for the land.

Park managers were concerned that relic thieves would destroy artifacts that provided important information about the first and second battles of Bull Run. The situation became heated when a September 29, 1984, *Washington Post* article on artifact thievery at the then privately owned Brawner Farm described the activities of "a scruffy assortment of gravediggers and relic hunters."

This sort of publicity spurred John Blunk, president of the Northern Virginia Relic Hunters Association, to contact Superintendent Rolland Swain with his concerns about the impression of his organization that was being created.

According to Blunk, "the purpose of the Northern Virginia Relic Hunters Association is to locate, recover, catalogue, and preserve history." He says the association focuses on Civil War history, and emphasizes that their policy mandates that they abide by the law.

In response, Superintendent Swain spoke to the group at one of their meetings "in order to improve understanding of the park position and to dispel any stereotypes formulated by either side because of the news story."

In addition, Swain set up an NPS booth at the 13th Annual Civil War Relic and Memorabilia Show that was held in Virginia this past April. The booth contained information about the Archeological Resources Protection Act, national park metal detector regulations, and general information about the NPS position on artifact hunting in parks and other federal lands.

Superintendent Swain described people "as generally interested and concerned, as the booth was busy all day long."

As a result of communication on both sides, the Northern Virginia Relic Hunters Association offered its help in NPS archeological research projects. Both Swain and regional archeologist Dr. Stephen Potter foresee this volunteer help as potentially beneficial to the park.

Because of tight funding, the offer makes economic sense. The volunteers would help prevent thievery while extracting, recording, and preserving artifacts valuable to the nation's history.

Dr. Potter says the tentative project would provide the NPS with archeological information about the Second Battle of Manassas and would create a better appreciation of archeological preservation in the minds of the volunteer relic hunters. He is working toward a ratio of six volunteers to one staff member and has outlined steps for implementing the program:

- NPS archeologists develop the research design of the project, and establish specific survey areas;
- Volunteers are chosen, with assurance by club officers that artifacts will be treated appropriately. (Custer National Battlefield Park in Montana, which has a similar volunteer program, has had a few problems in this regard);
- Hold a project workshop to discuss with participants how the talents and energies of the volunteers will be used;
- Begin systematic field work.

The one constraint on the implementation of this program is the lack of adequate National Park Service staff to supervise participating volunteers.

—Karen Brewster, NPCA intern

NPCA Purchases Inholding For Acadia National Park

Acadia National Park in Maine is dotted with inholdings and, because of the way the park's enabling legislation was written, the National Park Service cannot purchase these inholdings itself. Recently, NPCA's National Park Trust bought four acres on the western side of Acadia's Mount Desert Island, which will be donated to the park.

Like much of the island, the parcel was being sought for development—in this case, residential housing. With NPCA's purchase, the inholding can now remain consistent with the surrounding parkland woods of pine and birch.

In order to protect Acadia from increasing development, the National Park Trust has begun a fundraising compaign to purchase inholdings, which will be transferred to the NPS. For more information about the Acadia Fund, write National Park Trust, 1701 18th St. NW, Washington, D.C. 20009.

Robert Pierce

The birch and pine woodland above, located on Mount Desert, is part of NPCA's purchase for Acadia.

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News Update

Clearcutting Planned Near Redwoods. The Forest Service has just released its management plan for Six Rivers National Forest in northern California; and the plan spells trouble for nearby Redwood National Park. The Forest Service proposes to clearcut a substantial swath of forest along the pristine Smith River, which runs through the park. Runoff in the clearcut area could load the river with sediment and pollutants, thus devastating the watershed and ruining the river as it flows through the redwoods.

•

American Conservation Corps Moves in House. The bill to create a conservation corps that would employ young people to help preserve the country's natural resources has passed two House committees and is expected to come up for a floor vote within the next few weeks. Language to include $75 million over three years for the corps was dropped in favor of "such sums as may be necessary." The Senate has introduced an ACC bill, but has taken no action beyond that.

•

Sequoia-Kings Canyon Bighorn Study. The NPS is preparing an environmental assessment as a first step in reintroducing bighorn sheep to Sequoia-Kings Canyon National Park. Depending on funds and the availability of bighorns from donor herds, reintroduction could take place within the next several years.

•

Cape Krusenstern/Red Dog Mine Exchange. On May 23, NPCA testified at House hearings in support of a land exchange at Cape Krusenstern National Monument in Alaska. The exchange would provide the Northwest Alaska Native Association with a transportation corridor through the park, which it needs to reach its Red Dog Mine. In exchange, the National Park Service would get lands that contain the upper drainages of at least four streams that carry sediments to the Cape's archeologically important beaches.

•

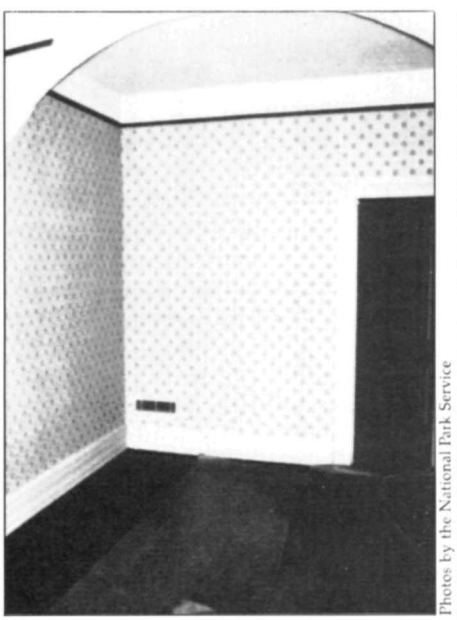
Petrified Forest Addition in Senate. The House passed legislation to add 40 acres containing Anasazi artifacts to Petrified Forest National Park, Arizona. In Senate hearings, Senator Barry Goldwater (R-Ariz.) expressed concern that Santa Fe Railroad owns the subsurface mineral rights to this parcel. Goldwater would like to see a land exchange involving Bureau of Land Management acreage so that the National Park Service would get the Petrified Forest addition without complications.

Maggie Walker House Open, But Only Intermittently

Maggie Walker was born on July 15, 1867, soon after the Civil War. Before she died she had founded and been president of a bank; had established an insurance association; and had organized a civic group—St. Luke's—that successfully fostered black economic development in Richmond, Virginia. She died in 1934, and her house remained occupied but unchanged for almost 50 years. In the late 1970s, Richmond leaders asked Congress to make it an historical site.

After extensive renovation, the Maggie Walker National Historical Site will be opened to the public on Sunday, July 14, a day before the anniversary of Walker's birthday. The NPS did have the funds to renovate the house; however, staffing the house is another question.

Funds that would allow the NPS to hire staff—interpreters and others—come from a different budget and that cupboard is bare. For the time being, those interested in viewing the house will have to schedule a tour with the NPS.



Photos by the National Park Service

When Richmond, Virginia, leaders petitioned Congress to name the Maggie Walker house as a national historical site, it was thought that it would take very little work to put the building in shape. Little did anyone realize that the building would have to be stripped down to its lathes to be repaired. Under the wallpaper was a crumbling structure. On July 14, the National Park Service will open the house to the public. Because of a limited budget, however, the schedule after that has not been determined. Although the house appeared to be in good shape, the photo above (left) shows the extent of the repairs necessary in the front bedroom. Right: a view of the same room after renovation.

Air Pollution: No. 1 Threat To National Park System

On May 21 and 22, the House Subcommittee on National Parks and Recreation held hearings on the increasing problems of air pollution in all units of the National Park System. Chaired by Representative Bruce Vento (D-Minn.), the committee heard testimony on how all kinds of air pollution—including acid rain—are destroying the natural and cultural resources parks are meant to protect.

"What we are finding," said Vento, "is that air pollution represents the number one threat to the parks."

Superintendents from Great Smoky Mountains, Sequoia-Kings Canyon, Everglades, Grand Canyon, and other parks confirmed the urgency of the situation. They told of how pollution is masking our mountain ranges and eating away the plant life of our parks.

Senator Max Baucus (D-Mont.), whose state includes Glacier and Yellowstone national parks, said, "Areas such as national parks are Class I airsheds. Stringent standards regulate their air quality. But recently, I have become concerned that these special standards may not be enough.

"These standards protect against immediate or localized pollutants, but may not do the job of protecting national parks from pollutants coming from long distances. I am referring to acid rain."

In her wide-ranging testimony, Susan Buffone, NPCA's clean air program coordinator, said, "The pristine character that distinguishes these national treasures is being needlessly squandered—gradually whittled away to mediocrity.

"The air is being fouled, the acidity is robbing the land and water of its fertility. The Great Smoky Mountains may one day be only smoky. For, once gone from our national parks, really clean air may be gone forever."

Pollution and acid rain, said Buffone, are killing fish in the waters off Indiana Dunes National Lakeshore, acidifying high mountain lakes in Rocky Mountain National Park, damaging historic monuments at Gettysburg, destroying red spruce forests at Great Smokies, and even corroding the Statue of Liberty.

Almost all of the 225 ponderosa pine trees studied at Saguaro showed ozone injury. In addition, Buffone pointed out that "the 15 copper smelters in the [southwest] region contribute approximately 10-30 percent of the total man-made light extinction in the Golden Circle of national parks in southern Utah and northern Arizona. These parks—Zion, Canyonlands, Mesa Verde, Bryce, and others—are some of the most stunning in the system."

NPCA's suggestions for improving air quality in the parks include:

- Making sure that by December 1985 the Interior Department publishes its list of integral vistas (views that are so important to the essence of a park that the air quality of those vistas must be protected);
- Collecting baseline data within the parks so the NPS can determine the extent of pollution-caused damage;
- Implementing a 12-million-ton emission reduction program to clean up the air in the East;
- Clamping down on smelter emissions in the West.

Marjory S. Douglas Receives Award Named in Her Honor

Mort Kaye

Marjory Stoneman Douglas, who has devoted her life to saving the Florida Everglades, accepts the first annual NPCA award named in her honor. "I am very grateful and happily astonished to receive this award. I pledge that every penny will be spent to the best possible advantage, especially for the Everglades environment," she said during the award ceremony on April 12 at the Society of the Four Arts Building in Palm Beach, Florida.

NPCA Trustee Gordon Beaham, III (left), president of the Faultless Starch/Bon Ami Company of Kansas City, Missouri, presented Douglas with $5,000, a certificate, and an engraved pewter bowl. The Bon Ami Company will sponsor this award for the next four years. The Marjory Stoneman Douglas Award will be presented by NPCA each year to an individual who has made an outstanding effort to protect an area within the National Park System. NPCA President Paul Pritchard (right), who moderated the ceremony, said that Douglas's work is an example of the difference a private citizen can make in environmentalism.

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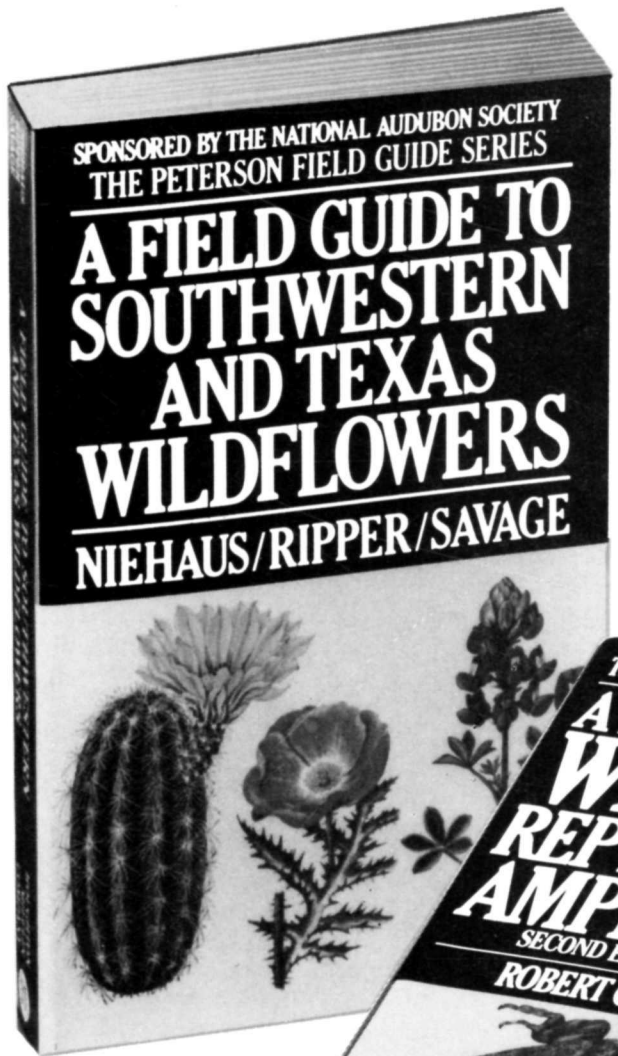

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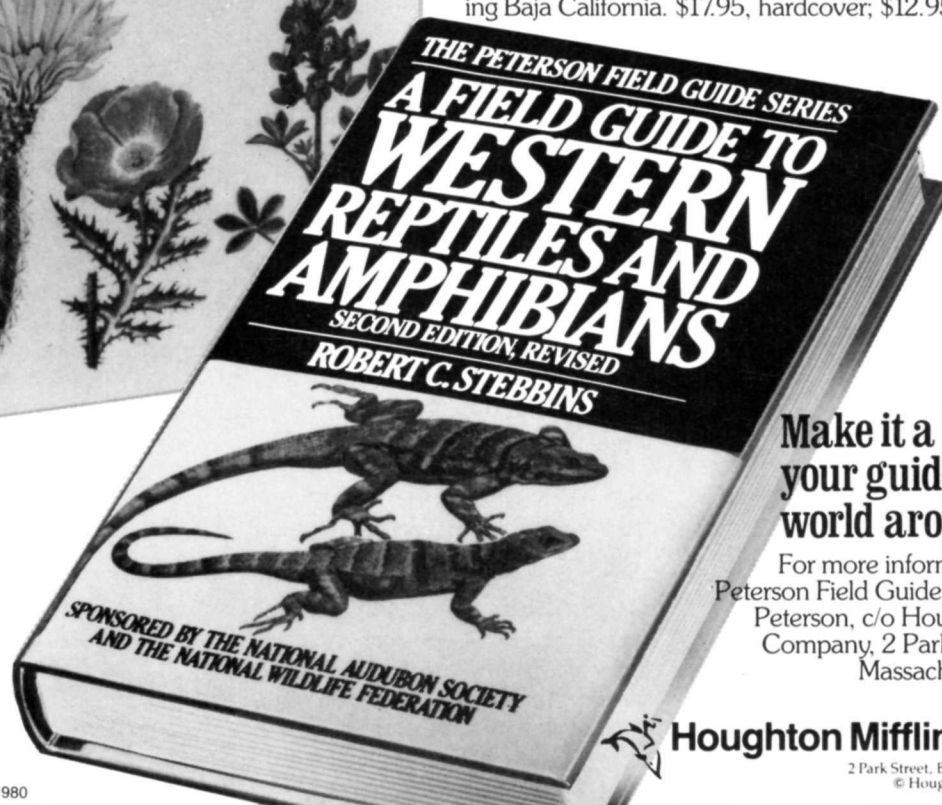

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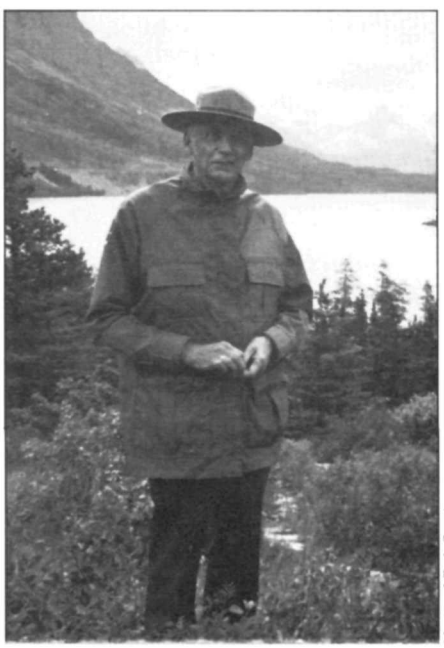
Glacier's Robert Haraden Wins Second Mather Award

Two years ago NPCA created the annual Stephen T. Mather Award to honor public employees who risk their careers to protect the environment. This year's winners include people who have taken positions on issues against the orders of their superiors, lost jobs or promotions, or have been forced into early retirement. Because of their commitment, encroaching development was halted, pollution was controlled, and the public was informed and involved in issues that have long-term consequences for the health of our environment and our society.

Robert Haraden, the 1985 national winner, is superintendent of Glacier National Park. He won the $1,000 Mather Award because of his continued support for park resources. An example is his willingness to go public with criticism of OMB directive A-76, which instructed the National Park Service to contract out a variety of park maintenance responsibilities to the private sector. NPS professionals strongly opposed the directive, but Haraden was the only superintendent willing to testify against it. Because of his efforts, Congress passed legislation that restricted the use of A-76.



National Park Service

Glacier Superintendent Robert Haraden (above) was willing to testify before Congress against the plan to contract out park jobs.

There were six regional winners, all of whom risked their futures for their principles:

- Gaylord L. Inman, refuge manager for the Brigantine National Wildlife Refuge in New Jersey, led the fight against the development of 15,000 residential units along the refuge boundary. He also resisted the introduction of hunting and trapping into the refuge. For his efforts he was forced into early retirement.
- Roger Contor, NPS regional director for Alaska, resisted attempts to open Alaska's parks to sport hunting and inappropriate development.
- Midwest regional winner John Winters, chief of water quality for the State of Indiana, worked for improved water quality throughout his career, fighting the repeal of clean water legislation each year.
- Joseph I. Gill, chief of the Coastal Wetlands Division of the Mississippi Bureau of Marine Resources, risked his job to protect coastal wetlands by denying ecologically damaging dredging permits in the face of extreme political pressure.
- Felix Smith, environmental assessment specialist for the U.S. Fish and Wildlife Service, alerted the public to heavy metal contamination at Kesterson Wildlife Refuge in California. Despite threats to his career he documented the contamination, which was caused by irrigation runoff from a Bureau of Reclamation project, and educated the public and administrators of the Fish and Wildlife Service.
- Joyce Kelly was chief of Recreation, Cultural and Wilderness Resources Division for the Bureau of Land Management. Her nomination by 18 environmental organizations attests to her good work. She instituted valuable conservation policies, created training courses and outreach programs, and worked against environmentally harmful BLM programs in the face of constant resistance as well as staff and budget cuts for her department. She is currently working for the Environmental Protection Agency.

Custer Park Takes Stand To Preserve Battle Site

Custer Battlefield National Monument is divided in two segments by private lands, which developers are eyeing for possible purchase. One 300-acre plot, in particular, is for sale; and park officials fear that this plot will be lost to development.

National Park Service/William S. Keller

The land lies adjacent to the battlefield where cavalry officers Reno and Benteen tried to hold off advancing Sioux and Cheyenne forces. It offers unmatched views of that battlefield and undoubtedly contains historic artifacts from the time of the siege.

Recent archeological discoveries at the site of the Battle of the Little Bighorn—where Sitting Bull, Crazy Horse, and their warriors overwhelmed Custer and his 7th Cavalry in 1876—have turned up artifacts that broaden our understanding of the battle. The National Park Service's 1985 archeological survey crew have found more than 1,300 items (a record number), including the eye piece for a telescope, cartridge cases, a cavalry boot, picket pins for tethering horses, a brass Indian bracelet, and clasp knives.

Ballistic studies of battlefield discoveries tell archeologists what kinds of rifles were used, provide new information on how many Indians had rifles, and make clear the positions of the various forces. The NPS fears that with the sale and development of private lands between the battlefield sites a part of history will be lost.

Court Decision Would Cut Yampa's Flow in Dinosaur

The Yampa River, which winds through the deep recesses of Yampa Canyon in Dinosaur National Monument, is the last undammed major tributary of the Colorado River. But a recent Colorado district court decision could alter the river's free-flowing and unregulated nature through Dinosaur.

The court denied applications for minimum in-stream flow rights. This action could pave the way for dam projects and dam-controlled water levels.

In response, the federal government filed for a motion to alter and amend the court's decision in favor of the Colorado River Water Conservation District (CRWCD). The U.S. government says that Dinosaur National Monument needs a certain minimum amount of water for three basic reasons:

1. to sustain endangered species of fish;
2. to ensure healthy riparian ecosystems, and;
3. to maintain recreational rafting.

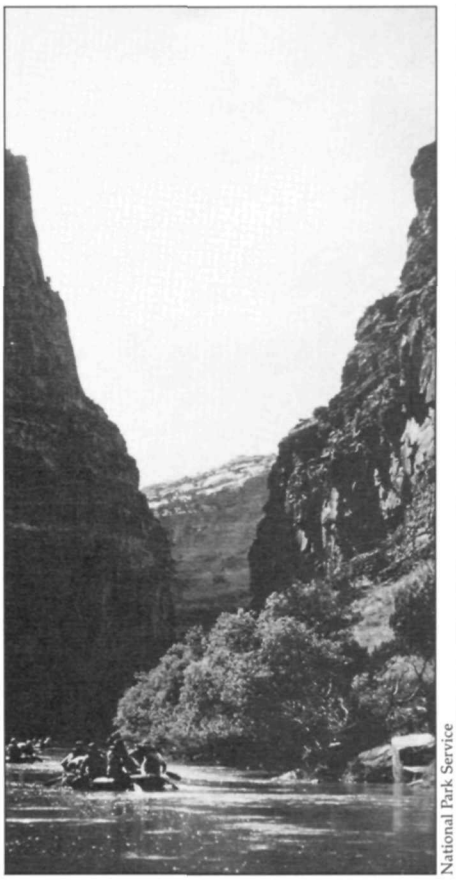
Scientific research completed for the National Park Service shows that minimum instream flows are needed to maintain riparian vegetation and endangered species of fish, such as the humpback chub. Yet, CRWCD based its court arguments not on the amount of water needed for endangered species, but on the fact that recreational rafting needs were not part of Dinosaur's enabling legislation. The water district also claims that there would be adequate flows for the endangered fish.

CRWCD is the primary sponsor of the controversial Juniper-Cross Mountain dam project that has been proposed for the Yampa River. Colorado-Ute, the regional utility company and the project's cosponsor, withdrew its support in 1982. They said the project was economically unfeasible. Recent studies indicate that the demand for electrical power in that area has declined.

Although CRWCD has now dropped the Cross Mountain dam project, it may proceed with plans for the Juniper dam. In addition, the application for construction and development of the Juniper-Cross Mountain project is still pending before the Federal Energy Regulatory Commission (FERC). The Environmental Defense Fund has filed a motion with FERC to dismiss that application.

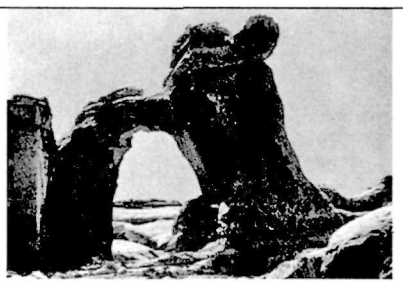
A more permanent alternative to protect the free-flowing Yampa is to designate it as a Wild and Scenic River. Reaching Wild and Scenic River status would require a long political process in Congress; but it is one of the best chances environmentalists have to protect the Yampa River.

The problem on the Yampa River



National Park Service

Over the millennia, the Yampa River (above) cut a dramatic canyon through what is now Dinosaur National Monument, which straddles the borders of Colorado and Utah. A recent court decision could threaten the Yampa's status as the last free-flowing tributary of the Colorado River.



is only one of a number of western water rights issues. The various factions—federal, state, and local agencies as well as environmental organizations and private companies—involved in these questions must reach a consensus on water policy and strategy.

Ben Harding, NPCA's National Park Action Program representative for Dinosaur National Monument, said, "The time for action is right now, before this case or any other western water issues reach crisis proportions."

Although there are no simple solutions to the water conflicts that continue to proliferate in the West, Interior Secretary Donald Hodel said, "If we sit back and do nothing now, we will face—at the very least—local or regional crises in the future."

—Kirsten Bevinetto, NPCA intern

Yosemite's Merced River A Target for Dam Project

From its origins in the high Sierra, the Merced River flows through the heart of Yosemite National Park. The South Fork follows the southern boundary of the park and flows through the Wawona area; and the Main Fork cleaves Yosemite Valley, providing a focal point for El Portal, which is fast becoming administrative headquarters for the national park.

Both forks of the Merced River, however, have been under scrutiny for hydroelectric projects. Dams and diversion tunnels are being proposed for areas just outside the park in the Sierra National Forest, which is administered by the U.S. Forest Service.

NPCA opposes development in these areas because it would threaten park wildlife, cultural resources, recreational values, and scenic vistas—particularly along the popular Arch Rock entrance to the park. If the river were designated as Wild and Scenic, however, it would be protected from these development plans.

Recently, the Merced Irrigation District (MID) abandoned its South Fork proposal because it did not prove economically viable and because the project stirred up too much controversy. But this good news is tempered by indications that MID is interested in selling their engineering studies to another prospective developer.

The Main Fork is another story. The Federal Energy Regulatory Commission (FERC) recently accepted the Main Fork project for review. This acceptance signals the beginning of the licensing review process.

The Main Fork project proposes a 10-foot-high movable dam that would divert water from the river into a 3.7-mile-long tunnel and through a 22-megawatt turbine before being returned to the natural riverbed.

The diversion would begin just outside the national park; and approximately 650 cubic feet of water per second would be skirted around the El Portal section of the river. Thus, the natural flow of the Merced River—plus scenic vistas and recreational opportunities—would be degraded along a most critical stretch of the river.

The Forest Service at the Sierra National Forest is currently evaluating the Merced for Wild and Scenic River status. In addition, Congressman Tony Coelho (D-Calif.), whose district contains the Merced, is considering a Merced Wild and Scenic River bill.

According to Steve Whitney, NPCA's natural resources coordinator, "The Merced River issue presents a real opportunity for our membership to provide us with direct and timely assistance. Both the Forest Service and Congressman Coelho need to know that the entire river system deserves Wild and Scenic status, and that it is unacceptable to trade away national park values for poorly conceived development proposals."

To support Wild and Scenic River status for the Merced, write Supervisor Jim Boynton, Sierra National Forest, 1139 O Street, Room 3017, Fresno, California; and Representative Tony Coelho, 403 Cannon House Office Building, Washington, D.C. 20515.

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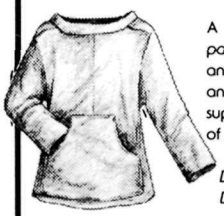

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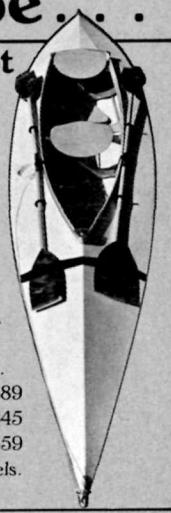

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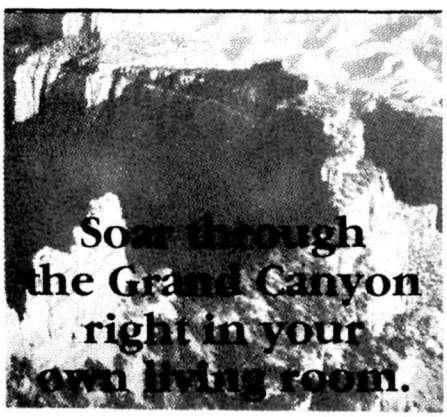

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Members Corner

Summer is a good time to catch up on some reading. To add to your summer reading list, NPCA would like to reintroduce several books that we have offered in the past, along with a new book recently published by NPCA.

National Parks in Crisis contains a selection of papers presented at NPCA's 1981 conference held in Wyoming. Distinguished citizens and conservation leaders dissect the scope, complexity, and gravity of the crises facing America's National Park System. $13.95.

Greenline Parks: Land Conservation Trends for the Eighties and Beyond defines both the complex concepts and the practical steps necessary for landscape protection by using methods that do not depend on acquisition. This report was first presented at an international conference in Germany in 1983. $9.95.

The Moore House was the first historic building to be restored by the National Park Service. The report by Charles E. Peterson was the progenitor of all reports on historic structures prepared by the NPS during the past 50 years. *The Moore House* is a significant document in the history of the American preservation movement. It contains numerous photographs and step-by-step descriptions of the restoration. $8.45.

World National Parks: Progress and Opportunities is a compilation of writings and research papers that represent 21 nations. The book was published in Belgium and presented as a token of gratitude to the United States on the centennial of the creation of Yellowstone National Park in 1972. Topics include history, marine parks, and scientific research, and combine to make fascinating reading. $9.95.

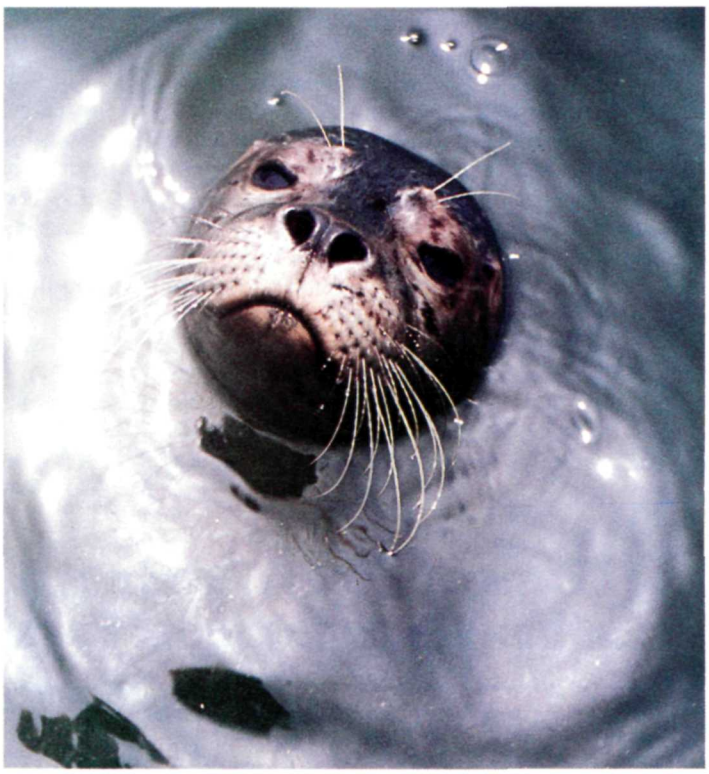
Views of the Green has just been published by NPCA. Its brings together the diverse park perspectives of European and American conservation leaders who attended NPCA's German Conference in 1983.

The book explores the differences in carrying capacity, land availability, philosophy, and private citizen participation, along with conservation history as both groups explore conservation ideas.

Views of the Green makes good reading for people interested in park policy, or for those who are planning a nature trip through Europe. $9.95.

To order, write: Membership Coordinator, NPCA, 1701 18th St. N.W., Washington, D.C. 20009.

The Channel Islands



Peter Howorth

On a clear day, the Channel Islands—that windswept group of islands just off the coast of southern California—appear to be only a stone's throw away from the mainland, and in sun they seem to beckon us nearer yet. But when the weather shifts and fog swirls in soft haloes around them, the islands recede into the distance, assuming a brooding and forbidding countenance.

Accessible only by boat, the islands are miles yet eons away from the crowds, the noise, the frenzy. Birds and seals are the only throngs here, the murmur of wind and waves the only sounds, and a change of weather the only restive element in the serenity of island life.

Once in the Santa Barbara Channel, we become an integral part of that strange island world, whose beauty lies in stark simplicity. One with nature, we are exposed and vulnerable to its laws, quixotic though they sometimes seem to be. Although sunny days are frequent, there is always the chance that a fog may descend or a storm may suddenly break. And the wind must always have its wanton way.

But these elements only enhance the mysterious elegance of the islands. And when the waves swell, the breakers crash, and the foghorn blares its melancholy warning, we realize that there is one thing here that is more pervasive, more dominant than the weather. It molds the islands, affects the habits of the island life, and nourishes all. That tyrant and benefactor is the *sea*—and its dominion is total.

Excerpted from Channel Islands: The Story Behind the Scenery, *written by Peter C. Howorth; KC Publications, Box 14883, Las Vegas, NV 89114. $3.95 postpaid.*

R.A. Clevenger

Thomas Cowell

R.A. Clevenger

The whiskers of the harbor seal opposite are so sensitive that they can pick up sound vibrations underwater; and his huge eyes allow him to spot prey in dim ocean light. The nudibranch at top is an elegant sea slug with a mane of exposed gills. Above, the island kelpfish camouflages itself with color. And, at right, the strawberry anemone looks like a flower, but is actually a voracious animal.

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It has eyesight like eight-power binoculars — and a 200 mile per hour speed when it dives. But the peregrine falcon cannot survive alone against the ravages of a threatening environment.

Now an endangered species, falcons need help. And employees of Pet Incorporated in Saint Louis have joined the fight to save them. A secure nest will be installed on the Pet building high above Gateway Arch National Park and the Mississippi River.

In this lofty sanctuary, three peregrines a year will be reared. And hopefully this swiftest of all winged creatures will grace Midwest skies once again.

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