National Parks

The Magazine of The National Parks Conservation Association

Swift Foxes

Hazy Skies Continue

Park Volunteers

A Southwest Tour

Parks for Sale

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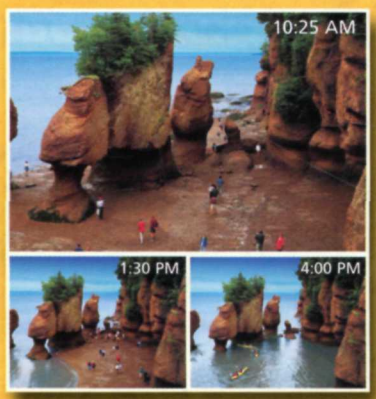

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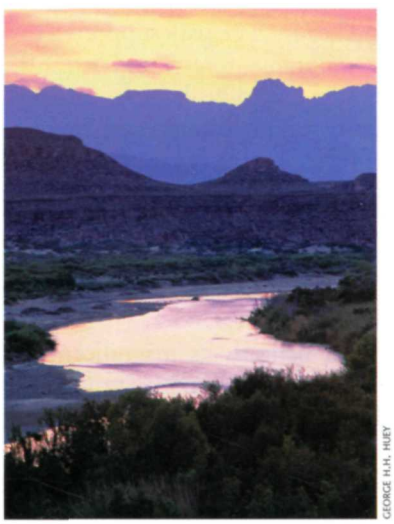
Vol. 78, No. 1-2
January/February 2004
The Magazine of the National Parks Conservation Association

FEATURES

Cover: An adult swift fox surveys its surroundings from a badger hole in a northern Montana prairie.
Photo by Jeff Henry.



GEORGE H.H. HUEY

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DEPARTMENTS

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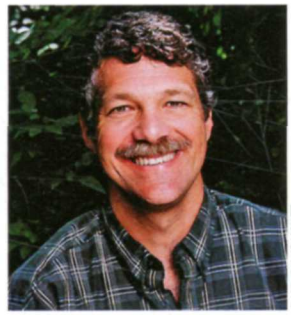
Clearing the Air

The president's Clear Skies Initiative will not improve the conditions in the parks faster than existing laws.


CHAD EVANS WYATT

Recently, I traveled to Shenandoah National Park with my family to enjoy a hike. It was an unusually clear day, and the views from the historic overlooks along Skyline Drive were crisp and clear. They were so clear you could almost imagine the outline of the Washington Monument in the far distance. The views at Shenandoah at one time stretched all the way to Washington, D.C., but it has been more than seven decades since that was a possibility. Those crystal days are few and far between, and may become even rarer over the next few years—especially if the Bush administration is successful in pushing its Clear Skies Initiative, now stalled in Congress (see story, page 26).

Shenandoah is a remarkable slice of southern Appalachian natural history and beauty. The park supports a rich mix of mountain forests and streams, outstanding wildlife habitat, artifacts that testify to prehistoric and more recent cultures, a wide range of historic buildings as well as those built by the Civilian Conservation Corps, and a dazzling array of recreation opportunities. It is the destination of choice for 1.5 million people each year.

But beneath its magnificence, Shenandoah is a park in jeopardy. It is one of the nation's five most polluted parks. In fact, the park's dirty air has earned it a slot on NPCA's Ten Most Endangered National Parks list.

As part of the National Parks Legacy project, the president promised to eliminate haze from the national parks. Clear Skies will not improve the conditions in the parks faster than existing laws and may make air quality in some parks even worse. The Bush administration also promised to listen to the concerns of communities and restore and renew the national parks, but has not yet done so.

A power plant has been proposed five miles outside of Shenandoah National Park—that plant will almost certainly affect the air of the park as well as the community that surrounds it, yet the administration's Clear Skies Initiative and the elimination of a program called New Source Review all but stifle the Park Service's voice in what effect these plants will have on our nation's most significant treasures.

On one hand, the administration encourages the Park Service to engage with communities that surround the parks and understand how these areas are inextricably linked; on the other, the administration errs on the side of disempowering its own agency.

The administration has a clear responsibility to protect these incredible places as well as the health of the human population. By ignoring the advice of its own citizens and agencies, and by weakening the Clean Air Act, the administration is not fulfilling its role as the steward of the land and its people.

Thomas C. Kiernan
President

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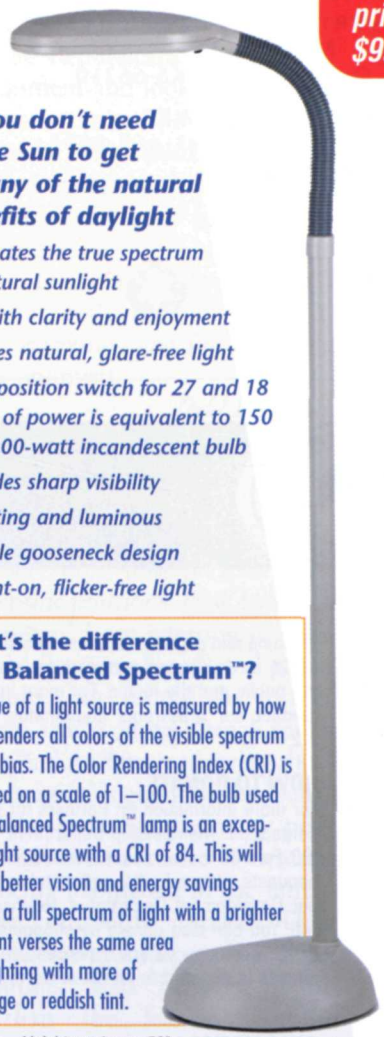

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Dennis M.
Richmond, VA

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National Parks

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About NPCA

WHO WE ARE
Established in 1919, the National Parks Conservation Association is America's only private, nonprofit advocacy organization dedicated solely to protecting, preserving, and enhancing the U.S. National Park System.

WHAT WE DO
NPCA protects national parks by identifying problems and generating support to resolve them.

WHAT WE STAND FOR
The mission of NPCA is to protect and enhance America's National Park System for present and future generations.

EDITORIAL MISSION
The magazine is the only national publication focusing solely on national parks. The magazine creates an awareness of the need to protect and properly manage park resources, encourages an appreciation for the natural and historic treasures found in the parks, and informs and inspires individuals to help preserve them.

MAKE A DIFFERENCE
Members can help defend America's natural and cultural heritage. Activists alert Congress and the administration to park threats; comment on park planning and adjacent land-use decisions; assist NPCA in developing partnerships; and educate the public and the media. For more information, contact our grassroots coordinator, extension 222.

HOW TO DONATE
For more information on Partners for the Parks, contact our Membership Department, extension 213. For information about Trustees for the Parks, bequests, planned gifts, and matching gifts, call our Development Department, extension 145 or 146. You can also donate by shopping online at www. npca.org, where 5 percent of your purchases is donated to NPCA at no extra cost to you.

QUESTIONS?
If you have any questions about your membership, call Member Services at 1-800-628-7275. *National Parks* magazine is among a member's chief benefits. Of the $25 membership dues, $6 covers a one-year subscription to the magazine.

HOW TO REACH US
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EDITOR'S NOTE

Volunteering


CHAD EVANS WYATT

After enjoying our story on Little Bighorn National Battlefield in the last issue, a reader sent this message: "Perhaps I am missing something, but with all of the colleges and universities around the country, some would jump at the chance" to archive and catalogue historic documents—a critical need identified in our story.

The fact is that students, retirees, and other folks who care deeply about the national parks volunteer at hundreds of national parks throughout the country.

Thousands of volunteers devote hundreds of hours to the parks. These dedicated people fill a valuable role, but they cannot make up for the lack of staff (see story, page 30)—a need that is not likely to improve with the funding that has been earmarked for the National Park Service. Congress passed an appropriations bill this fall that includes an increase of only $55 million—not enough to cover cost-of-living increases for existing staff, let alone add positions.

Make no mistake: Volunteers provide valuable services to the country's parks. The Park Service estimates that in fiscal year 2002, 125,000 Volunteers-In-Parks (VIP) contributed 4.5 million hours of service at 340 national parks, monuments, battlefields, and offices. The value of their work is calculated to be more than $72 million.

Volunteers staff bookstores, organize libraries, set up computer systems, catalogue museum items, conduct education programs, serve as campground hosts, and portray living history characters. Interested in joining the ranks of these dedicated park lovers? Go to www.nps.gov/volunteer or to www.volunteer.gov/gov. Opportunities abound.

Linda M. Rancourt
Editor-in-Chief

No-Take Zones, Philosophical Divide

In the Zone

"In the Zone" [November/December 2003] misrepresents anglers' views. Many of us oppose no-take zones because neither science nor common sense justifies them. There is no justification for banning non-commerical angling on a personal basis in large zones.

Traditional regulations work well, as shown in Yosemite and Everglades national parks, where recreational fishing is fostered but commercial uses prohibited. Everglades has the best fishing regulations anywhere, proving that draconian, across-the-board prohibitions are not necessary.

Total no-take marine reserves are touted by some as great successes, but truthfully, the few that have added to fish populations did so simply because they eliminated commercial overfishing. Properly regulated personal fishing virtually never needs to be prohibited.

Our national parks should continue to embrace recreational fishing and always remember that anglers usually are the best stewards of the resource.

Karl Wickstrom, Editor-in-Chief
Florida Sportsman *magazine*

Editorial Reply: NPCA has consulted with recreational fishing groups such as Bonefish-Tarpon United that are strong leaders in conservation and will continue to work with these groups to ensure the future health of our fisheries.

To see more letters, visit www.npca.org.

Philosophical Divide

Thank you for the excellent article comparing the Bush legacy to Teddy Roosevelt's legacy [November/December 2003]. I am an independent voter, but I am disgruntled with the Bush administration's environmental policies. There is no chance he will get my vote in 2004.

There are Republicans who care for the environment and look at long-term consequences versus short-term gain. Unfortunately, I don't think any of them are linked to this administration.

As Republicans for the Environment say, the environment is not a partisan issue. If we are to make progress that will benefit us all, both sides must do away with their extremists and find solutions with their optimists.

Todd Hartman
Huxley, Iowa

Denali's Wolves

The article on Denali wolves [September/October 2003] misrepresented two of my scientific positions. First, by a wolf "family lineage" I am referring to combined social [learning-based] and genetic continuity, not simply the former. Second, the article quotes Denali superintendent Paul Anderson as saying that I think habituation is good for the Denali wolves. That has never been my position. It is not even accurate to describe them as being habituated in the unnatural sense commonly implied. Their fearless behavior toward people is closer to the natural, "wild" behavior of this species than the fearful response Anderson would like to instill. This fearless behavior has remained much the same throughout my 38 years of research on these wolves and has not shown any indication of evolving into serious aggression toward people.

I was also disappointed that the article represented only one side of another contentious issue—that there is "constant turnover" among individual Denali wolves and groups and that human killing exerts only minor impacts. That is not what my research shows. Consider, for example, that the current Toklat/East Fork alpha female is only the fifth in the last 33 years, one of which maintained the position for 12 or 13 years. In the Savage family, the same alpha and beta males maintained their positions for at least seven or eight years. Toklat/East Fork has persisted as a family throughout the 38 years of my research. Savage was well established when I began studying it in 1966 and lasted another 16 years until eliminated almost certainly by human killing. Headquarters lasted 11 years until eliminated by human killing. Four other groups scattered throughout the northside park/preserve lasted at least 12 to 16 years, and in none of these terminations can human causes be excluded. At any given time there are ten to 20 groups in this overall area; hence, a half dozen persistent groups is anything but insignificant.

The oft-quoted 3 percent and 60 percent estimates for human- versus wolf-caused deaths are derived by unrealistically ignoring the many potential indirect and lingering effects of human killing on these complex social systems.

Gordon Haber
Denali Park, AK

WRITE TO US

Send mail to: Letters, *National Parks*, 1300 19th St., N.W., Suite 300, Washington, DC 20036. Letters can also be e-mailed to npmag@npca.org.

"YOU ARE HERE"

This monument was designated in 1956. It celebrates cultural diversity and the rich history of our country.

Answer: Booker T. Washington National Monument, Virginia.

NPCA

ParkScope

News and Notes

BY RYAN DOUGHERTY

WILDLIFE MANAGEMENT

Bear Attack Raises Questions at Katmai

Park looking at ways to protect visitors in remote wilderness.

AP/WIDE WORLD PHOTOS

Brown bears at Katmai are usually harmless to park visitors if not disturbed.

KATMAI N.P., ALASKA—A fatal bear attack that left two people and two bears dead at Katmai National Park and Preserve raises questions about how the Park Service should best walk the fine line between allowing remote wilderness access while also protecting the lives of visitors and wildlife.

Timothy Treadwell, 46, and Amie Hugenard, 37, of Malibu, California, died in early October on a camping and bear-watching trip at a lake adjacent to Kaflia Bay, on Katmai's outer coast. One or more bears, drawn to the remote wilderness area because of salmon in the lake, mauled the travelers to death—the first known bear killings at Katmai. While investigating the incident, Park Service staff, in self-defense, shot and killed two charging brown bears.

The travelers were videotaping bears at the lake, officials said, noting that Treadwell was widely known for his rapport with bears. Park Service officials, however, had long feared that Treadwell would be killed by bears and repeatedly warned him not to get too close to the animals or disrupt their natural behavior.

"At best, he's misguided," then-superintendent Deb Liggett told the *Anchorage Daily News* in 2001. "At worst, he's dangerous. If he models unsafe behavior, he's ultimately putting the bears and other visitors at risk."

The Park Service is doing a standard review of the incident, but the agency does not expect significant changes to its policy of allowing wilderness access.

"We think that the rules are sufficient and sound," said Superintendent Joe Fowler. "People are attracted to these wilderness areas, where there's always an element of risk. That's probably the reason some people are drawn to them."

Still, some have called for the Park Service to get tougher on visitors who break the agency's rules around wildlife and to better educate the public on wilderness safety.

"The tragic bear killings highlight the danger of camping in areas of high bear activity and show the need for the Park Service to manage park visitors to prevent this from happening again," said Jim Stratton, NPCA's Alaska regional director. "There is a clear need for more funding to put more rangers inside the park," he said, "and the Park Service must aggressively pursue those who violate the rules, such as touching and interfering with natural bear behaviors."

The Park Service and the Alaska Department of Fish and Game recently developed a "Best Practices" report for safely viewing bears on the Katmai coast. Among its recommendations: Do not approach a bear in close distances; avoid surprise encounters; secure all food sources; and in remote wilderness areas, consider bringing small, transportable electric fences to protect a campsite.

For further information, visit www.npca.org/wildlife_protection/threats/bearattack.asp.

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NEWS IN BRIEF

BOZEMAN, Montana—The Bush administration recently approved the Roundup power plant in central Montana, despite repeated warnings by the National Park Service and U.S. Fish and Wildlife Service that pollution from the plant would impair visibility in Yellowstone National Park and the Charles M. Russell National Wildlife Refuge (Park Scope, March/April 2003). The coal-fired power plant is expected to create air pollution and haze at levels that would harm views and air quality in the parks and other regions of Montana. In response to the administration's action, several conservation groups, including NPCA, have filed suit in Washington, D.C., to force the Department of Interior to protect Yellowstone's air. The groups call the decision a case of politics trumping science. "We could have clean air in Yellowstone, a clean plant, and more jobs for Montanans," said Tony Jewett, NPCA's senior director of the Northern Rockies region, "but D.C. political appointees are trading away clean air. It's a shameful episode undermining these places that belong to all Americans."

WASHINGTON, D.C.—The National Park Service recently launched an online program, "Hispanic Heritage Parks: An Iberian Project," dedicated to the 16 park sites in the park system of Iberian or Spanish heritage. The program, at www.nps.gov, is available in both Spanish and English and commemorates the importance of Hispanic heritage in the national parks. Visitors to the site can take virtual tours of the featured park sites, including Coronado National Memorial in Arizona, Cabrillo National Monument in California, De Soto National Memorial in Florida, and San Antonio Missions National Historical Park in Texas.

WASHINGTON, D.C.—Legislation to protect the last wild and genetically pure buffalo in America was introduced to bipartisan support in November. The Yellowstone Buffalo Preservation Act, H.R. 3446, would end years of seasonal hazing, capture, and killing of buffalo in and around Yellowstone National Park by federal and state agencies (Park Scope, January/February 2003) until specific, common-sense conditions are met. The bill, offered by Reps. Maurice Hinchey (D-N.Y.) and Charles Bass (R-N.H.), mandates efforts to allow Yellowstone buffalo to use public lands, through incentives and cooperative efforts with adjacent landowners and ensures that buffalo in Yellowstone are under the sole jurisdiction of the Park Service. In winter and early spring months over the past decade, nearly 3,000 Yellowstone bison have been slaughtered to limit the possibility of disease transmission to cattle—although such a transmission has never been documented in the wild. "People find it inconceivable that this symbol of the American West is routinely slaughtered for simply roaming onto public lands next to Yellowstone National Park," said Tony Jewett, NPCA's senior director of the Northern Rockies region. For more information or to take action, visit www.npca.org/action.

WASHINGTON, D.C.—Recent legislation signed into law by President George W. Bush calls for a new education center to be built beneath the Vietnam Veterans Memorial (Park Scope, April/May 2002), but a provision in the bill also banned any future memorials on the National Mall. The bill calls the cross-axis of the Mall "a substantially completed work of art," within which no future memorial or visitor center can be built. NPCA has pushed for a ban on new memorials on the National Mall to protect the power of existing memorials and preserve the Mall's few remaining open spaces. Sen. Craig Thomas (R-Wyo.) was one of the lawmakers who attached the ban to the education center bill.

HISTORIC PRESERVATION

Waves of Concern Roll at Assateague

Proposed private control of park buildings spurs development fear.

ASSATEAGUE ISLAND N.S.—Could Assateague Island, the mid-Atlantic's only national seashore, known for its serenity and wild horses, one day look like Atlantic City?

Some concerned citizens posed that question after hearing that the Park Service was considering handing over 12 aging buildings, including the Coast Guard Station—considered the park's most valuable cultural resource—to commercial groups to pay for their upkeep. Critics decried the plan as one that would open the door to development on the island and eventually leave it looking like the ultra-developed beach towns up north.

"Critics talk about commercial development, but that's a loaded word," said Superintendent Mike Hill. "All we're talking about is preserving these historical structures" including several buildings once used for duck hunting. "The word development brings to mind subdivisions and high-rises and things we're not talking about here," he said.

Among the uses for the buildings that a marketing firm suggested were an education and research center, campsites, a vacation rental center, or a bed-and-breakfast. Each use could financially sustain itself and pay for the upkeep of the structures, said Hill. The park is now studying whether the buildings are historically significant.

"If they are, the question becomes what can we do to preserve them, and how do we pay for it?" he said. "If they aren't, then the question is how will we dispose of them properly.

"Hopefully, we'll complete these studies before the buildings fall down," said Hill. "The deterioration of the structures is getting ahead of us," he added, "so

we're trying to figure out how to preserve them. We're in a race against time."

One local group, the Assateague Coastal Trust, opposes any commercial activities or new construction on the island. A vocal critic of the park's planning is the recently formed "Citizens for the Preservation of Assateague." The group fears the precedent that would be established by allowing a commercial interest to control park resources and the effect that redevelopment could have on the endangered piping plover, which nests near the Coast Guard station.

"If they can put commercial activity in an area set aside for protecting threatened species, the whole island could be opened up to it," said Jay Cherrix, a local kayak guide. "We are fighting the redevelopment of these buildings, because human activity in these sensitive areas will hurt Assateague's resources."

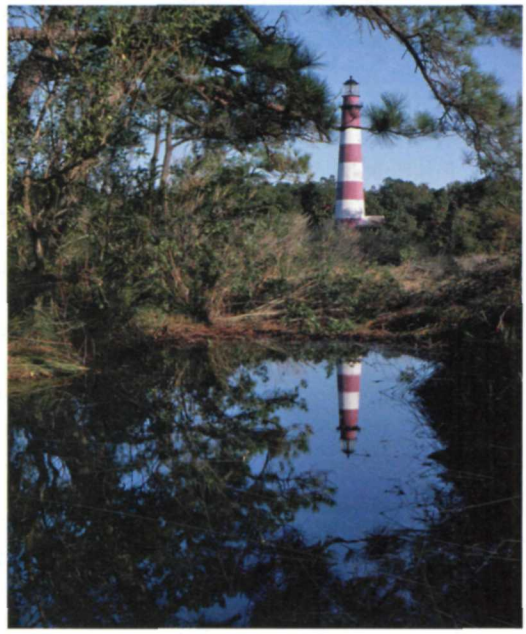
Hill concedes that, in a perfect world, the Park Service would maintain control of the structures. But he said the park is cash-strapped and under an executive order to try adaptive partnerships to preserve aging resources.

"So the goal is to find a group or cooperator to use the Coast Guard station in an environmentally responsible way and pay for its upkeep," said Hill, "which would be wonderful."

Assateague's dilemma is not unique. National parks throughout the country must preserve cultural resources on a shoestring budget, and the situation is encouraging many park units to examine potentially harmful commercial partnerships.

"On average, for every dollar a park needs for daily operations, it gets only 65 cents," said Joy Oakes, NPCA's Mid-Atlantic regional director.

"Parks are forced to preside over mediocrity and decay or look for helping hands. Until Congress is willing to fully fund the parks, the Park Service will have to look for ways to bridge the gap," said Oakes.



CORBIS

The Park Service will try to protect the island's natural beauty while preserving aging buildings it can no longer afford, such as the Coast Guard station.

"Some partnerships will be seamless, but other proposals will be controversial and even inappropriate," she said.

NPCA Notes

History Restored

A new visitor center brings life to San Francisco Maritime National Historical Park. A partnership between the National Park Service and Kimpton Hotels and Restaurants has revitalized the site and re-opened to the public the park's Haslett Warehouse. The 10,000-square-foot visitor center, which shares the ground floor of the warehouse with Kimpton's Argonaut Hotel, presents opportunities for educational events, lectures, and film screenings. The visitor center houses new exhibits and interactive technology that visitors can use to experience park history. Rent paid by the hotel will help the park to preserve its fleet of historic ships.

Stewardship Award

Dave Uberuaga, the superintendent of Mount Rainier National Park in Washington, was honored with the Stephen Tyng Mather Award for his dedication and numerous contributions to the National Park System.

Uberuaga, who has spent nearly 20 years at Mount Rainier, has worked tirelessly within the Park Service and with Washingtonians and public officials to build understanding, cooperation, and support for management decisions based on protecting and preserving Mount Rainier and its staff. Each year since 1984, NPCA confers the Mather Award, named for the first director of the National Park Service, to a Park Service employee who has demonstrated exemplary park stewardship as well as both initiative and resourcefulness in promoting resource protection within the Park System.

—Jenell Talley

VISITOR EXPERIENCE

New Visitor Center Telling River's Story

Center casts light on overlooked Mississippi River site.

MISSISSIPPI N.R.R.A., MINN.—Since becoming a national park site 15 years ago, the Mississippi National River and Recreation Area has told the rich story of the Mississippi River and its impact on the Twin Cities—but with little recognition. Thanks to its new, innovative visitor center in the Science Museum of Minnesota, though, the site's profile is increasing.

The center features rotating exhibits, ranger talks, park trip information, and merchandise and draws hundreds of visitors each day.

"Since its opening in August, the center has met all of our expectations, which were high," said JoAnn Kyral, park superintendent. "Visitors are looking at and diving into exhibits and interacting with park rangers. It's making people feel more a part of the Mississippi."

The national park unit's boundaries comprise a 72-mile stretch of the 2,350-mile Mississippi, on which American Indians depended for trade, food, and water centuries ago. The river's confluence with the Minnesota River was an early outpost for the U.S. military and a key locale for fur traders.

Further downstream, tens of thousands traveled along the Mississippi and settled at St. Paul, the river's upper end point for steamboat navigation.

"We know the reason the Twin Cities grew was because of the river," said Kyral. "The visitor center will bring recognition to the park site and show why the Mississippi River is nationally significant.

"It is a gateway of information about the river, including the 16 partner sites within the park," she added, noting that the center provides information and park trip planning materials for each of the Park Service's 388 park units.

Although building the visitor center inside a museum was a first for the National Park Service, it seems a natural fit, economically. The visitor center cost about $750,000 to build, compared with the several millions of dollars the Park Service would have spent to build a stand-alone facility. The partnership will likely pay dividends long-term, too, as some of the museum's 800,000 annual visitors learn about the park site.

"The Science Museum is the best partner a park could have," said Kyral. "The museum staff's vision and understanding helped keep this partnership alive during many years that we struggled to get funding for this center. They saved a spot in the museum for us for nearly four years, which shows how much they valued the partnership."

MATT KANIA

PARK TRANSPORTATION

Retro Yellow Buses Back in Yellowstone

Buses provide alternative to less environmentally friendly options.

YELLOWSTONE N.P., MONT.—A version of the historic Yellow Bus, friendly to visitors and the environment, will return to Yellowstone National Park this spring—and it could one day be a celebrated fixture across the National Park System.

The modern-day version of the Yellow Bus—which in the 1930s was common in parks such as Yellowstone and Glacier—holds as many as 32 passengers, can run on alternative fuels, and has a low floor design that complies with the Americans with Disabilities Act. The bus also features a retractable roof, offering visitors fresh air and a better view of the scenery, and it can double as a snow coach in the winter.

"The buses can adapt to all seasons," said Laura Loomis, NPCA's transportation director, "and they pioneer a comfortable and educational method to see and learn about parks. Many national parks and gateway communities could really benefit from them."

Supporters of the buses see them as alternatives to higher-impact vehicles, such as the noisy and polluting snowmobiles that roam Yellowstone in the winter months.

"Because they're quiet and driven by trained guides, buses will have less of an impact on air, wildlife, and the park's soundscape than snowmobiles," said Steve Bosak, NPCA's legislative officer.

The buses not only fit the Park Service's need for an all-season transit vehicle but also may be used for municipal and private-sector transportation, said Kerry Klingler, project manager of the Idaho National Engineering and Environmental Laboratory.

The multi-seasonal buses cost $175,000 each. Congress recently appropriated $1.9 million for six buses in Yellowstone, which will be operating this spring and then used as snow coaches next winter. NPCA is calling for increased congressional funding for buses in other parks to offer visitor-friendly transportation and alleviate traffic congestion. Similar shuttle systems have been successful at national parks such as Zion and Acadia.

"We strongly support the expansion of alternative transportation in parks where there's a need for it," said Bosak. "People are realizing that there's got to be a better way to see a park than sitting in a traffic jam."

Legislation now before both the House of Representatives and Senate addresses needs for alternative transportation in parks—and could authorize as much as $90 million to pay for new buses and shuttle systems.

"The buses are ready to provide an attractive option for visitors seeing our national treasures," said Loomis. "All that is needed is more funding from Congress."

Historic TIDBITS

May 17 will mark the 50th anniversary of *Brown* v. *the Board of Education*, the landmark Supreme Court case that ended school segregation. On that date in 1954, the Supreme Court declared that "separate educational facilities are inherently unequal," thus violating the 14th Amendment of the Constitution, which guarantees all citizens "equal protection of the law." Historians say the ruling inspired African Americans to fight against racism and injustice, leading to the 1964 Civil Rights Act. Brown v. Board of Education National Historic Site in Topeka, Kansas, commemorates the ruling and its impact on America. The site consists of the once-segregated Monroe Elementary School, where the Brown lawsuit began. For more information, visit www.nps.gov/brvb or call 785-354-4273.

PARK SCIENCE

Rhinoceros Fossils Found at Wind Cave

Remains of 32-million-year-old rhino give clues of area's history.

WIND CAVE N.P., S.DAK.—When Dr. Greg McDonald looked down and saw a row of teeth protruding from the ground in Wind Cave National Park's backcountry, he knew he was on to something.

"Then I saw a skull in place and a jaw next to it," he said. "We were all thrilled to find that. It was enough to make my day, my month—and then it got better every time we moved some dirt."

Once the dirt had cleared, McDonald and his crew discovered fossils from a 32-million-year-old, cow-sized rhinoceros. Thrilling as that discovery was, McDonald and the rest of the crew grew more and more excited when they began finding other remains, such as prehistoric bones of a greyhound-sized horse, a deer, a rabbit, and a dog.

"This was more than we would have dared to hope for," said McDonald. "To find remains from the other animals helps us to reconstruct what the ancient ecosystem of the Wind Cave area was like 32 million years ago—which animals were there and what was going on."

Scientists believe that the park's cave system was much smaller and probably inaccessible to large animals when the rhinoceros roamed the area. But the discoveries will cast further light on the development of the Great Plains, which are believed to have had a climate similar to Florida's millions of years ago, as the plains emerged.

As is the case with most sites of high elevation that have experienced erosion, fossil finds are very rare in South Dakota's Black Hills, said McDonald.

"Most previous discoveries have been single bones and isolated teeth, bits and pieces," he said. "To find not only a complete skull and jaws but part of a skeleton as well was totally unexpected and extraordinary."

The rhinoceros fossil, tentatively identified as a *Subhyracodon sp.*, is believed to be a distant cousin of today's rhinoceros in Africa. Its age was extrapolated from what is already known about the species in other areas.

"Part of what we'll be looking at is whether this site where the animal died was much lower 32 million years ago and later pushed up, or were the Black Hills already in place and this animal was living in higher elevation than we knew," he said. "If so, that would give us a better understanding of the range of habitat this animal could live in."

The crew, which began its work in July, was led by McDonald and consisted of staff from Badlands National Park, the Mammoth Site of Hot Springs, South Dakota—the world's largest mammoth research facility—and Wind Cave National Park. They worked for almost a week to stabilize the fossils and remove them.

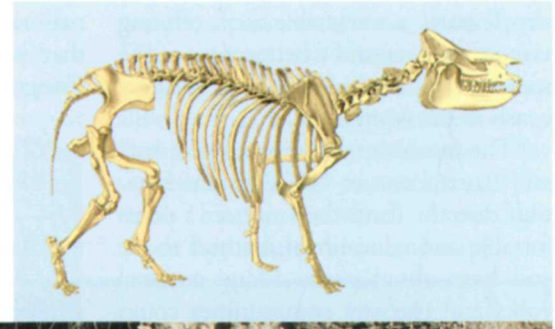
Weighing nearly twelve hundred pounds, the fossil material, encased in sediment and plaster jackets for protection, was transported to the Mammoth Site to prepare the specimen. It quickly sparked interest from visitors and staff.

"We are very excited about this discovery and hope people will stop by the park to view our display on the [rhinoceros remains] and other fossils found at the site," said Superintendent Linda L. Stoll, "along with stopping at the Mammoth Site to view the work in progress."

Added McDonald: "As expected, the researchers were very excited about it. But the enthusiasm and desire of the park staff to do the project right just blew me away. There was just a lot of excitement when we told them what we had come up with.

"It really goes to show you," he added, "that you never know what types of neat, exciting resources will turn up in a park."

To learn more about the discovery and to view photos and video clips of the dig, visit www.nps.gov/wica.



NPS (2)

Dr. Greg McDonald excavates the remains of the ancient rhinoceros found protruding from the ground at Wind Cave. Above: a diagram of the rhinoceros' skeleton.

LEGISLATION

Final Spending Bill Shortchanges Parks

Appropriations bill fails to stop privatization, road construction.

WASHINGTON, D.C.—The Department of Interior's final 2004 spending bill, signed into law recently by President Bush, allowed the administration's process for privatizing park jobs to proceed and left parks and public lands vulnerable to harmful road construction.

The final bill requires the Department of Interior to spend no more than $2.5 million on job outsourcing studies and related expenses this year and to extensively report back to Congress on how studies are going.

The first privatization studies are expected to examine Park Service jobs at Golden Gate National Recreation Area in San Francisco, and more studies are expected next year.

"The good news is that Congress clearly remains quite doubtful about and is attempting to force more transparency into the administration's privatization process," said Craig Obey, NPCA's vice president of government affairs.

"The bad news is that [NPS] still has to waste millions of its scarce dollars on a flawed process that does more to hurt rather than help the national parks."

The final bill did not include park-protective language related to R.S. 2477, a 19th century statute written to promote expansion in the West that leaves parks vulnerable to right-of-way construction and off-road vehicle use—despite the fact that a large majority of the House supported the language.

The final spending bill includes a $55 million increase in funding for park operations, amounting to an increase of 3.5 percent. The amount fell short of last year's $68 million increase and well short of the $178 million boost sought by NPCA's Americans for National Parks campaign. The parks continue to operate with only two-thirds of the needed funding—an annual shortfall of more than $600 million.

This year's increase does not cover cost-of-living increases for existing staff, let alone the addition of new staff, and could result in some parks reducing staff and cutting programs.

Though the bill fell far short of meeting the funding needs of the national parks, according to NPCA, it provided funding increases for a handful of important projects:

▲ $5 million for Valley Forge National Historical Park in Pennsylvania to purchase land that had been bought for development of a subdivision.

▲ $3.5 million for the acquisition of threatened lands near Big Thicket National Preserve in Texas.

▲ $1.25 million for Fort Clatsop National Memorial in Oregon to acquire sensitive coastal lands in a historic area that represents the culmination of the Lewis and Clark expedition.

▲ Nearly $1 million to Frederick Douglass National Historic Site in Washington, D.C. to rehabilitate the structure.

▲ $900,000 to Organ Pipe Cactus National Monument in Arizona to boost visitor and resource protection along its 30-mile border with Mexico.

▲ $750,000 to Obed Wild and Scenic River in Tennessee toward the purchase of 1,231 privately owned acres remaining within the river's boundary.

▲ $500,000 for Santa Monica Mountains National Recreation Area in California to improve the park's environmental education; the park now has a two-year waiting list for education programs.

▲ $160,000 for Mount Rainier National Park in Washington to maintain more than 150 historic park resources.

Take Action

For updates on park funding and the privatization and R.S. 2477 efforts, visit NPCA's online Take Action center at www.npca.org/action.

NPCA Notes

Park Ranger Honored

Last November, Park Ranger Amy Garrett received NPCA's Freeman Tilden Award for her work using fiber-optic educational technology. Each year, the award is given to an individual who has successfully developed or delivered an effective interpretive program. Garrett, who works at Homestead National Monument of America, uses fiber optics to offer a real-time interactive learning experience to students and teachers in urban and rural parts of Nebraska. Her program enables some 3,000 students at 35 schools to interact with rangers and other park professionals. Students are exposed to high-tech equipment, such as global-positioning units and calculator-based labs. Program topics include natural and cultural resources, career opportunities, and the Park Service mission.

Global Warming

NPCA and other conservation groups attended Alaska Conservation Foundation's conference to discuss the effects of global warming on Alaska and its national parks. Congressional offices, universities, and other event participants hoped the conference would increase awareness of global warming and its impact on Alaska's natural environment, specifically the coastline and its fish. A link between the drop in Yukon River king salmon and global warming was presented, and participants stated that global warming has caused Cape Krusenstern National Monument and Bering Land Bridge National Preserve to lose pack ice and shoreline due to the erosion caused by storm waves.

—Jenell Talley

Spring & Summer Vacation Planner

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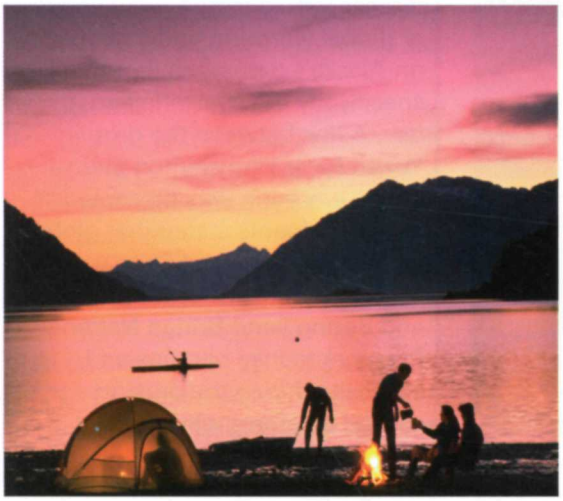

Spring & Summer Vacation Planner

Springtime Cruising: American Cruise Lines offers tours of South's inner byways

Imagine the breathtaking scenery and serenity of cruising the smooth inner waterways of America's South near the Atlantic Coast. Envision the lush vegetation and the rich assortment of wildlife along the winding rivers of America's South. Picture spectacular Antebellum South mansions and Victorian homes, as well as a mixture of 18th and 19th century structures representing diverse architectural styles.

These images can become a real experience by taking the seven-night Historic Antebellum South Cruise from American Cruise Lines. Vacationers hop aboard either one of two 49-passenger cruise ships, the *American Eagle* or the *American Glory*, which provide a relaxing, casual environment for sightseeing-filled days, complete with onboard lecturers and naturalists and special visits from local experts.

The Historic Antebellum South Cruise departs from either Charleston, South Carolina, or Jacksonville, Florida, with spring and fall departure dates. Charleston ranks as one of the top cruise destinations because of its magnificent historic district with spectacular gardens and 18th century architecture and its famous Fort Sumter National Monument.

And then there's Savannah, one of the nation's largest historic districts known for its vast collection of 18th and 19th century buildings and homes, as well as beautiful streets, spacious squares, and azalea-laden parks.

Other notable attractions along the way include St. Simons Island, complete with a lighthouse, Christ Church and Retreat Plantation, and Jekyll Island, famous for winter homes of the Rockefellers and Vanderbilts. The final cruise destination is pristine Amelia Island, Florida, near Jacksonville with its historic Centre Street and charming Victorian homes.

Spring & Summer Vacation Planner

Arizona Tourism

Golf in Arizona

Arizona is a world-class destination for golfers. With spacious layouts intended to challenge golfers without breaking their spirit, our championship courses have numerous tees to satisfy any skill level of play. *Pictured: Las Sendas Golf Club*

Culture & Heritage

Arizona is a melting pot of culture and heritage. From prehistoric residents to European and Spanish influences, the cuisine, customs and traditions enrich our state. Today museums, symphonies, art galleries, and theaters offer a variety of cultural attractions.

Nature & Adventure - Arizona-Style

Arizona boasts natural attractions and adventure in one of the world's most varied and beautiful playgrounds. From snowy mountain ranges, roaring rivers, pine forests, and unusual flora and fauna, Arizona offers something for everyone.

Birding

Bring your binoculars. Arizona is one of the best bird-watching areas in the country. Wildlife sanctuaries and preserves are located throughout the state and all are renowned for scenic beauty and excellent birding opportunities.

For more information, go to ArizonaGuide.com

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The Outer Banks Visitors Center of North Carolina offers a range of visitor services, information about major attractions, activities, events, accommodations, and dining, and gift items for sale ranging from shirts to caps.

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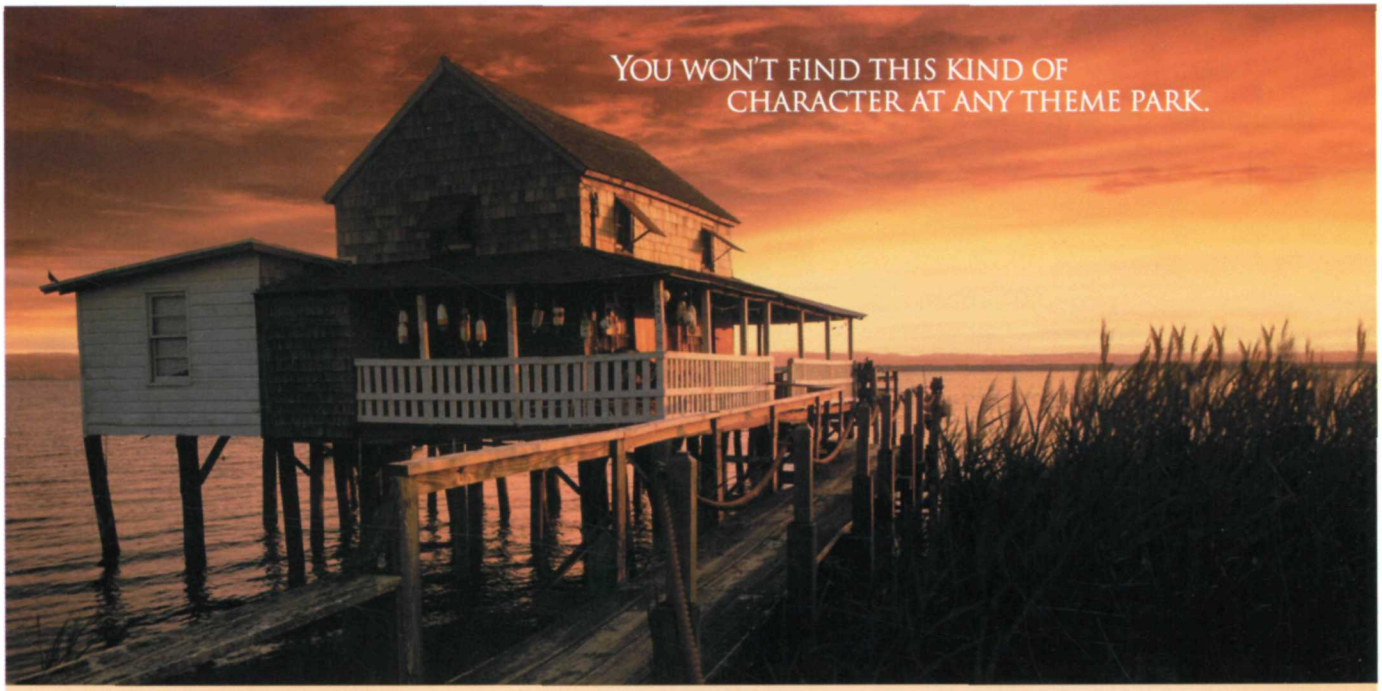

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Turning Nickels into Dollars

Maggie L. Walker National Historic Site tells the story of a woman whose business and humanitarian leadership created opportunity for blacks and women.

BY RYAN DOUGHERTY

That Maggie L. Walker made history by becoming the first woman to found and lead a bank, one that, in her words, could "take the nickels and turn them into dollars," seems fitting. Throughout a childhood marked by poverty and despair, Walker learned early on how to overcome adversity, to make nothing into something—values that guided her through a most extraordinary life.

Walker was born in 1867 in Richmond, Virginia. The mysterious death of her stepfather nine years later plunged her family into poverty. Her mother washed clothes to support her family, and by helping her, Walker learned first-hand about self-sufficiency. "I was not born with a silver spoon in [my] mouth," she said, "but instead with a clothes basket atop my head."

At age 11, Walker joined the First African Baptist Church, whose members prayed and worked together to boost the community. They inspired her. She studied scripture, which later surfaced in her writings and speeches, and participated in church activities. Two years later, Walker joined the local Independent Order of St. Luke, an organization that aided African Americans in times of trouble. Within a decade, she would use her fiscal sense and public relations know-how to turn the struggling Order into a successful financial organization.

Walker graduated from the Richmond Colored Normal School at age 16, but not before organizing a strike among black students to fight unequal graduation ceremonies held for blacks and whites. She then taught elementary school for three years, and, in 1886, married Armstead Walker Jr., a brick contractor. In those days, it was illegal for married women in America to teach, so Walker worked to improve the Order, fostering opportunity for women.

LEFT, RODNEY TODT; BELOW, NPS

Walker lived in this house, now a national historic site, for 30 years.

"If our women want to avoid the traps and snares of life," she said, "they must band themselves together, organize, and acknowledge leadership for themselves."

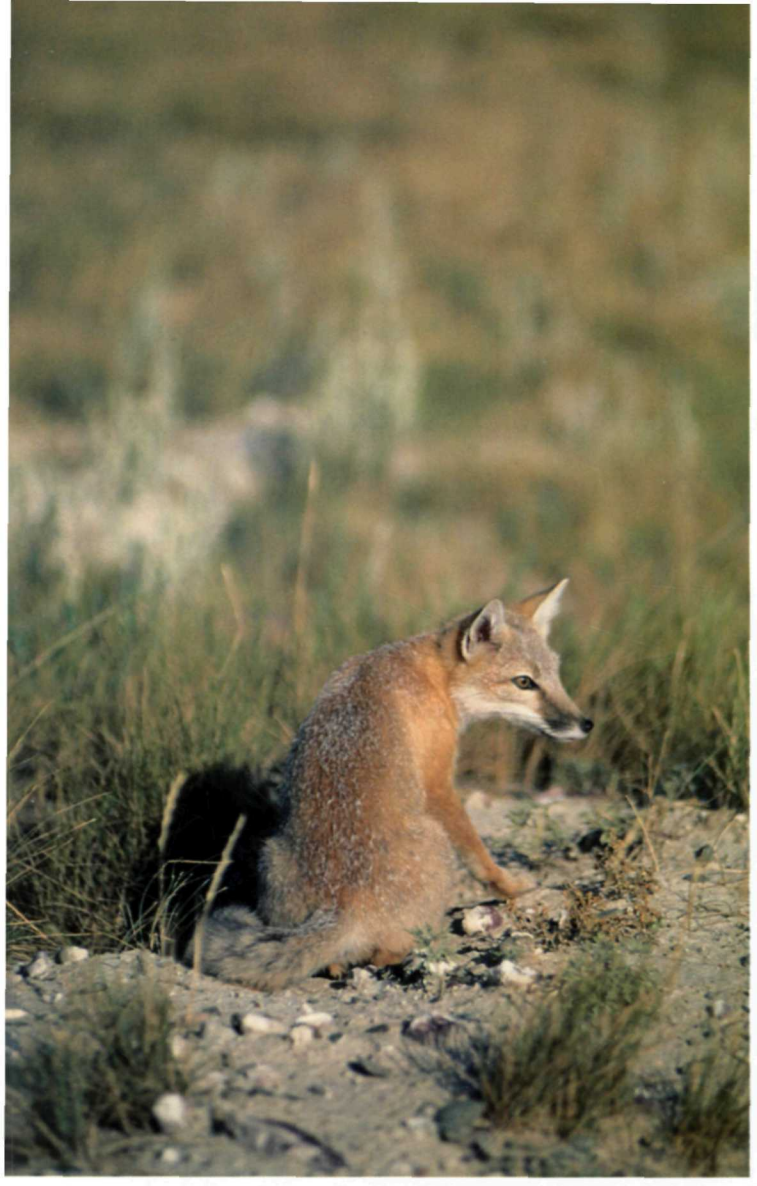
By 1901, Walker also sought to empower women and blacks economically. She established a savings bank run by the Order. "Let us put our money together at usury among ourselves and reap the benefits ourselves." Two years later, the St. Luke Penny Savings Bank became the first bank in America founded and led by a woman. It remains today as Consolidated Bank and Trust Company, the country's oldest continually operated African-American bank.

By the time Walker's family moved to 110 1/2 East Leigh Street, she was known as a dynamic leader in Richmond's thriving black community of Jackson Ward. Besides founding a bank, devoting decades to the Order, and caring for her husband and two sons, Walker found time to start a weekly newspaper, advise organizations such as the National Association for the Advancement of Colored People (NAACP), and work with leaders such as W.E.B. DuBois.

But Walker again suffered tragedy in 1915, when her husband was accidentally killed. That left her in charge of her bustling household, which now included her sons' wives and, later, four grandchildren. Walker supported the family through her investments and hard work until 1934, when she died at home of diabetic gangrene.

By then, Walker was widely known as a progressive and talented woman who created opportunity and advocated equal rights for oppressed blacks and women. Those who knew her best, however, remembered Walker in simpler terms: a woman who never lost sight of her devotion to family and faith.

RYAN DOUGHERTY *is news editor.*



JEFF HENRY

Return of the Swift Fox

The smallest canid carnivore in North America will again roam Badlands National Park in South Dakota, thanks to a three-year reintroduction effort at the park.

By Todd Wilkinson

CARR CLIFTON

JOHN ELK III

Biologists have begun to transport swift foxes from Colorado to Badlands National Park in South Dakota. Foxes are released near prairie dog colonies, which provide a source of cover. Prairie dogs, considered pests by ranchers, are a ready source of food for the swift fox.

On a recent afternoon at Badlands National Park in South Dakota, a prairie dog colony comes to life. Jittery prairie dog sentinels stand on their hind legs, bleating warnings that a scattered group of invaders is approaching. Nearby, a resident badger emerges from its den in a puff of dust; a burrowing owl sprints through the short grass to snatch a mouse diving for cover; and coyotes position themselves beside a warren of prairie dog holes, ready to pounce.

Healthy prairie dog towns have been associated with more than 100 different animals and birds, yet even among this wealth of critters, a few are missing. Soon, thanks to a new three-year reintroduction effort, one of these creatures—the swift fox—will be back in the picture.

In the fall of 2003, biologists began transplanting wild swift foxes from Colorado into the national park and the surrounding Buffalo Gap National Grasslands. Led by park biologists Greg Schroeder and Doug Albertson, the plan calls for 30 foxes to be turned loose annually through 2005. The animals will be released near prairie dog towns because they provide the greatest cover and a ready source of food. South Dakota is regarded as a premier location for reintroduction because its prairie dog colonies remain free of the sylvatic and bubonic plagues, which in other states have killed prairie dogs and other animals, including black-footed ferrets.

The smallest wild canid on the conti-

Badlands is a combination of eroded buttes, pinnacles, spires, and the world's largest protected mixed-grass prairie.

nent and roughly the size of a house cat, the swift fox began to disappear from its former haunts in the latter half of the 20th century. Prairie ecologists noticed that both swift foxes and their western desert cousin, the kit fox, were caught in a dangerous downward slide. Conservationists began a campaign to list the animals as a threatened species under the federal Endangered Species Act.

In 1995, the U.S. Fish and Wildlife Service said that the listing was warranted but precluded by other priorities. Recognizing that listing could possibly hasten calls for restrictions on land use, representatives from ten states joined together with independent researchers and officials with the Fish and Wildlife Service to form the Swift Fox Conservation Team. The objective was to slow the decline of existing swift fox populations. A major component of the strategy also called for re-establishing swift foxes in suitable areas.

Still, the proposal was initially met with skepticism when it was presented before the powerful South Dakota Animal Industry Board, which protects the interests of livestock producers. Advocates for the fox's reintroduction eventually won an endorsement from the board, in part, because it was clear the animals posed no threat to livestock.

"Too often, efforts to protect imperiled species are framed within a context of conflict. Yet the reintroduction of swift fox to Badlands reaffirms the value of parks and the opportunities that can arise when people come together to work toward common, creative solu-

JEFF HENRY

Foxes are outfitted with a radio collar that enables researchers to track them.

Remote, expansive western parks like Badlands offer premier opportunities to restore natural ecosystems.

CARR CLIFTON

Badlands' landforms are geological art, manifested from a unique blend of creation and decay.

tions," says Mark Peterson, who oversees NPCA's State of the Parks initiative. "I think what's happening here could very well become a model for other places. The $70,000 being spent annually recovering swift fox at Badlands is a bargain, and the dividends that are going to come from this modest investment will only grow."

Dating back to at least the end of the Pleistocene era, swift fox inhabited a wide swath of bison country covering ten states and a few Canadian provinces, extending more than 350,000 square miles from Texas northward to Saskatchewan and Alberta. The animals' sleek frames and fleet speed endeared them to nomadic peoples. The Oglala Sioux, for example, whose Pine Ridge Reservation encompasses the South Unit of Badlands Park, named one of their ancient warrior societies, the Tokalas, in honor of swift foxes.

The animals also were mentioned in the journals of explorers Meriwether Lewis and William Clark. In 1805, when the explorers came up the Missouri River near present-day Great Falls, Montana, Lewis offered the first detailed written description of swift fox in his diary and later captured a specimen that was shipped home to President Thomas Jefferson. However, over the next 150 years, a number of factors caused swift fox numbers to decline. Widespread habitat alteration caused by the near annihilation of bison was among the biggest. The foxes prefer short- and mixed-grass prairie. Without bison to graze the lands, the grasses grew tall. In addition, prairie dogs, considered a pest by ranchers but one of the fox's primary foods, were reduced to less than 5 percent of their historic range. Besides prairie dogs, the mostly nocturnal swift foxes also subsist on a diet of insects and small rodents, including ground squirrels, rats, mice, and voles.

In its purest sense, the effort at Badlands is the result of a blossoming public-private partnership initiated in South Dakota by media mogul Ted Turner, who owns several large bison ranches in the region including the Bad River Ranch, just east of the national park.

Under the auspices of the Turner Endangered Species Fund, led by biologist Mike Phillips (who, as a federal scientist in the 1990s, oversaw the reintroduction of wolves to Yellowstone), swift foxes were first returned to the 138,000-acre Bad River Ranch in 2002. Studies show the ranches could support a swift

The reintroduction of foxes builds upon the quiet successes of several other wildlife reintroduction programs at Badlands...

fox population of more than 200.

The following summer, Turner's biologists were again granted permission to trap and transport swift foxes from a thriving wild population in southern Wyoming, while a corresponding team from Badlands secured foxes from eastern Colorado. "We've gleaned some valuable insights from the Turner team," Schroeder says. "They've been great to work with and very supportive of what we're trying to do. We've got a lot of heads thinking about doing this right."

The reintroduction of foxes builds upon the quiet successes of several other wildlife reintroduction programs at Badlands, where in recent years the park has been a stage for restoring the most endangered land mammal in North America, the black-footed ferret. Ferrets rely almost entirely on prairie dogs as a food source. A self-sustaining population of 200 ferrets exists primarily in Buffalo Gap National Grasslands, where 15 years ago they were considered extirpated. In addition, the park has offered sanctuary to a growing plains bison herd and a band of Rocky Mountain bighorn sheep.

Researchers have identified more than 1,000 different threatened and endangered species that once were native to national parks. Large and remote western parks like Badlands represent some of the best opportunities for restoration.

"We are looking to reassemble as many pieces as we can of the original ecosystem puzzle," Schroeder says. "Watching foxes out here again is exciting."

Schroeder and Albertson released the animals in a remote, rolling corner of Badlands near a prairie dog colony on the edge of designated federal wilderness. Every fox is equipped with a radio collar that enable researchers to track its movement on the landscape. "This is an experiment that began the day the cage doors were opened, and it's going to continue as long as there are foxes," Schroeder says of research involving the Park Service, Marsha Sovada with the U.S. Geological Survey's Biological Resources Division, and Dr. Jon Jenks from South Dakota State University.

The hope is that as swift fox populations take hold at Badlands, Bad River Ranch, and other sites, animals will eventually recolonize a wider area of prairie.

"Badlands and Bad River are the first beach heads, but for this to work, you've got to have more than beach heads. You need human cooperation," Phillips says. "You can have all the habitat in the world, yet unless people are willing to consciously make room for wildlife in their daily lives, we'll continue to repeat the old patterns that caused problems."

For Badlands biologist Schroeder, a native of South Dakota who grew up close by in Wall, restoration represents an exciting new frontier. "If you are looking at the United States as a whole, this is one of the few geographical areas that remain relatively untouched. We still have native prairie inside the park, which because of the remoteness and ruggedness of the land around it, got passed by when the settlers came through," Schroeder says.

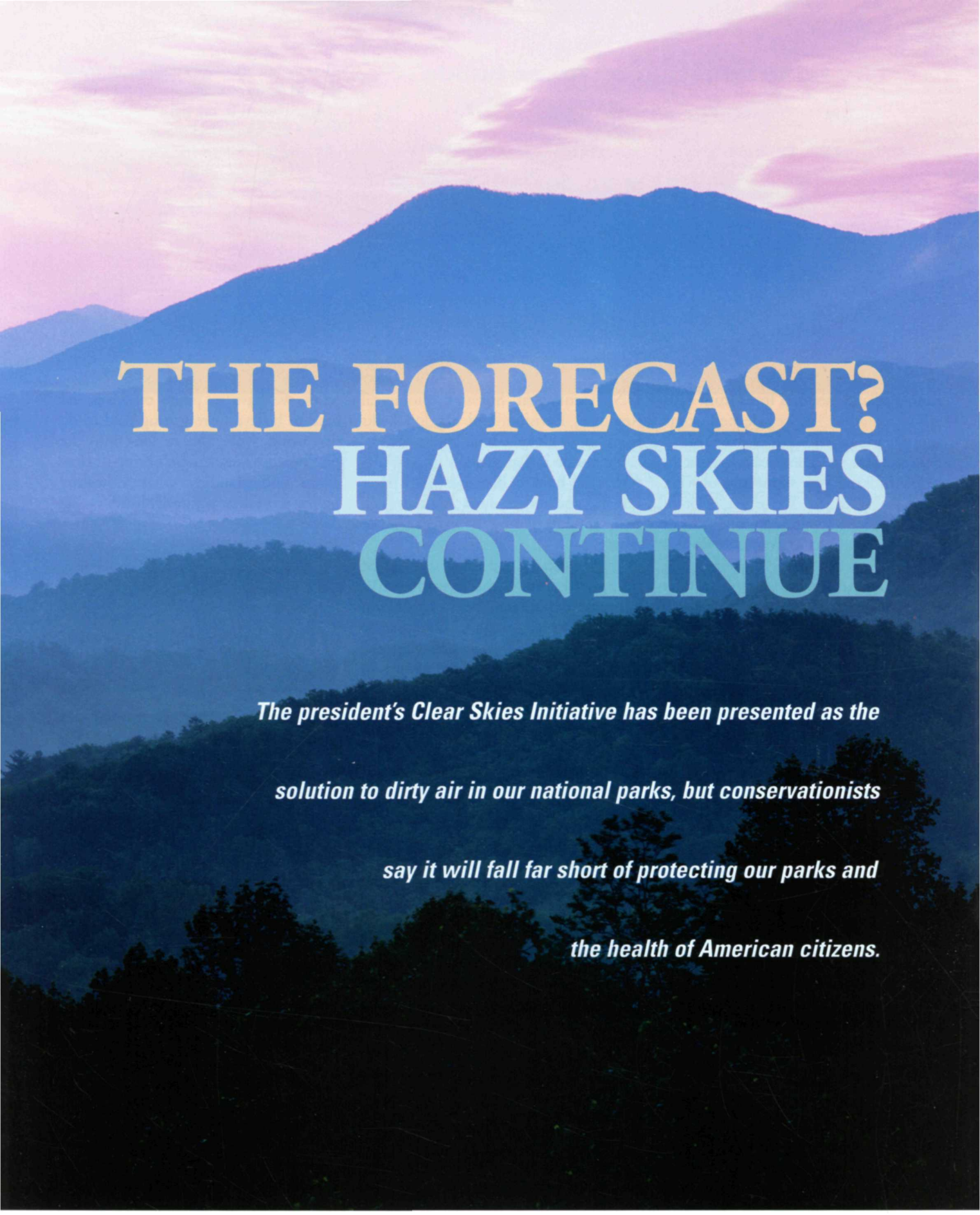
"Every day that we're out here, whether it's tracking ferrets or swift foxes, we have to pinch ourselves. It's hard to believe we're getting paid to do this work. We're able to look into the past because these animals bring us closer to understanding what a healthy prairie ecosystem was really like."

Todd Wilkinson, of Bozeman, Montana, is a regular contributor to *National Parks.*

JEFF HENRY

Swift foxes thrive in short- and mixed-grass prairies.

LARRY ULRICH



THE FORECAST? HAZY SKIES CONTINUE

The president's Clear Skies Initiative has been presented as the solution to dirty air in our national parks, but conservationists say it will fall far short of protecting our parks and the health of American citizens.

By Rob Schultheis

FRED HIRSCHMANN

A new boom in power plant building is exacerbating the pollution problem.

Last September, the president made a swing through Michigan to tout his Clear Skies legislation that would, he said, help to reduce air pollution, while at the same time maintain jobs and bolster the economy. The president said the legislation would replace a "confusing, ineffective maze of regulations for power plants."

He chose to make his announcement at a Detroit-Edison-owned plant in Monroe, Michigan, one of the largest coal-fired power plants in the country and, as it happens, Michigan's single biggest source of air pollution.

What the president did not mention during his speech before scores of Detroit-Edison employees is that in addition to dumping tons of mercury, carbon dioxide, sulfur, and nitrogen oxide into the air and into the lakes of western Michigan, some of that noxious mix of emissions may be adding to the haze and higher asthma rates elsewhere in the country—a situation that conservationists say will not improve under the president's initiative.

A $6-million study—called the Big Bend Regional Aerosol and Visibility Observational (BRAVO) study—reveals that pollution from power plants as far away as the Ohio and Tennessee valleys is an important factor in the declining air quality of Big Bend National Park, which sits on the Texas border between Mexico and the United States. For years, the American Lung Association has maintained that pollutants from power plants in the Ohio Valley were landing in the New England states, causing the high ground-level ozone in Maine as well as the high mercury levels in the state's streams, rivers, and lakes. Dirty air traveling from the industrial Midwest has also been blamed for poor visibility and pollution in at least three of the five most polluted parks in the country: Shenandoah, Great Smoky Mountains, and Mammoth Cave national parks.

Sulfur dioxide and sulfate particles—key elements that degrade visibility—can travel hundreds of miles on the wind. According to a May 2001 General Accounting Office (GAO) report to Congress on air quality and respiratory problems in and near Great Smoky Mountains, on hazy days most of the air masses reaching the park generally passed through the industrial Midwest.

This is the first time, however, that studies have suggested that these same pollutants may be clouding the vistas over Texas skies. For years, the declining air quality at Big Bend has been blamed on two coal-fired power plants south of the border in Mexico. But in 1999 a different picture was revealed by the BRAVO study. From July through October of that year, scientists carried out an intensive study of the airborne pollutants affecting Big Bend. Research sites in Texas, Oklahoma, Arkansas, and

LAURENCE PARENT

CARR CLIFTON

On most days, visibility at Big Bend, above, is moderately hazy, at best. Great Smoky Mountains, left, is one of the country's five most polluted national parks.

Located far from the nearest cities and industrial centers, Big Bend's vistas once extended for more than a hundred miles.

On a few days each year, Big Bend has the worst visibility of any western national park.

Louisiana tagged Big Bend-bound emissions from specific areas of the United States and recorded levels there. Final results have not been officially released, but this much is already known: Pollutants from power plants as far away as eastern Texas and the Tennessee and Ohio valleys are important factors in Big Bend's declining air quality. A State of the Parks® report on Big Bend, released by NPCA in November, also identified air pollution as one of the park's challenges.

Located far from the nearest cities and industrial centers, Big Bend's vistas once extended for more than a hundred miles. Today, visitors find moderately hazy views on most days, and on a few days each year, Big Bend experiences the worst visibility within any western national park. Texas local Jack Lamkin, who first visited the park in 1956 and who for years headed the volunteer group Friends of Big Bend National Park, describes the visibility today as "tremendously impaired."

Whether in Texas or Tennessee, power plant pollution blocks the scenic views that visitors expect to find in our parks. Congress addressed this problem by creating special provisions to protect air quality in certain national parks. Both a 1977 amendment to the 1970 Clean Air Act and the Environmental Protection Agency's Regional Haze rules require that air quality at Big Bend and other parks be brought back to natural conditions by cleaning up all domestic sources of the park's air pollution. But this may be difficult to achieve with a recent push to systematically dismantle core programs of the Clean Air Act.

In the September 29, 2003, *New Yorker*, editorial writer Elizabeth Kolbert drew a razor-sharp picture of how the Bush administration handles the problem of air pollution, using the coal-fired Monroe generating plant as an example. The plant pumps a noxious brew of poisons into America's air every year: 46,000 tons of nitrous oxide, a chief ingredient in smog; 100,000 tons of sulfur dioxide, which causes acid rain and haze; and 17.5 million tons of carbon dioxide, the main human-made factor in global warming.

Under the Clean Air Act, a program titled New Source Review (NSR) requires power plants to upgrade their pollution controls, using the best technology available, whenever they modify or upgrade their facilities. Experts estimate that if the operators of the Monroe and other power plants overhauled the facilities and were required to comply with NSR, the plants' output of sulfur dioxide would drop by 90 percent. For the Monroe plant, that means 10,000 tons per year.

Other pollutants would be similarly reduced. But the Bush administration steadily has been rolling back the Clean Air Act's safeguards by rewriting regulations that prompted the Clinton administration to take legal action against 51 power plants that violated the Clean Air Act. In addition, it has moved to slice the Environmental Protection Agency's enforcement budget to its lowest levels ever.

Clear Skies outlines a "cap-and-trade" approach, which builds on a sulfur-dioxide emissions-trading program implemented in the 1990s. This approach would establish an overall limit for the amount of a certain pollutant to be emitted nationwide. Utilities that reduce their pollution can sell credits to other utilities. Although there is broad support for a market-based approach, proper safeguards must be in place to protect communities and parks from receiving disproportionate amounts of pollution

Even though the Bush proposal includes cuts in the pollution that causes smog, soot, and mercury poisoning, the cuts are not as deep as the reductions that would result from enforcing the law already on the books—and the proposal delays reductions for up to a decade.

Not surprisingly, the energy industry has been a major player in the Bush administration's "reform" of environmental regulations. According to Kolbert's *New Yorker* piece, executives of the Southern Company, which owns 23 coal-fired plants formerly targeted by the Clinton administration for clean-up,

and which is also a major contributor to the Republican Party, wrote directly to Vice President Dick Cheney in 2001 asking that New Source Review regulations be axed. On New Year's Eve 2002 and again in August 2003, the Bush administration announced an across-the-board rollback of the New Source Review program.

In addition, Clear Skies would pave the way for companies to build power plants close to national parks without determining what effect their emissions would have on air quality in the park. The National Park Service (NPS) has had a seat at the table whenever new power plants were proposed that would affect a park's air quality, no matter where those plants were located. Under a provision of the Clear Skies Initiative, the Bush administration plans to drastically limit NPS participation to new power plant permits within 31 miles of park boundaries.

As both the BRAVO study and GAO report, emissions from much greater distances affect park air quality. Even before officially rewriting the laws with Clear Skies, the Bush administration has been ignoring experts within NPS and limiting their ability to review these permits. Mammoth Cave National Park in Kentucky, already considered one of the nation's most polluted parks, is now threatened by the Thoroughbred Generating Facility, 50 miles from the park's boundaries in Muhlenberg County. Despite evidence that the coal-fired plant would further damage Mammoth Cave's air quality, the Commonwealth of Kentucky has given Thoroughbred its stamp of approval. Yellowstone National Park in Montana is threatened by the proposed Roundup Power Plant, about 120 miles from the park's northeast corner. NPS models have shown that the Roundup plant would degrade air quality in Yellowstone at least 29 days each year, but this evidence was "overruled" by the Interior Department. NPCA and other groups have filed suit to overturn the Interior Department's ruling. The groups, which include the Greater Yellowstone Coalition, The Wilderness Society, and a Denver resident, said the federal agencies made suggestions that would allow the Roundup plant to operate without harming the air quality in Yellowstone. But, they said, those suggestions were overridden by the Bush administration.

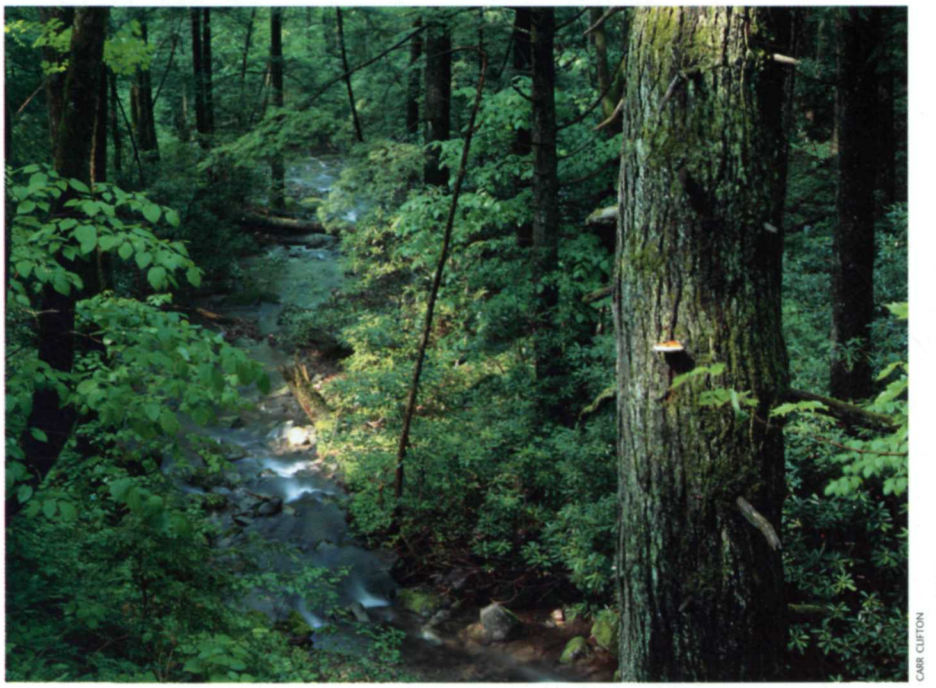
Exacerbating the pollution problem is the new boom in power plant building in states like Kentucky and Virginia, brought about by deregulation of the energy industry. Twenty-two new proposed power plants are on the books in Kentucky, and since deregulation in 1998, 16 new plants already are operating or under construction in Virginia; and 20 more have been proposed. Most of the power generated from the new and proposed plants in Virginia would be sold to out-of-state consumers. One plant currently going through the permitting process in Virginia is less than five miles from Shenandoah National Park's northern entrance. Shenandoah already suffers from some of the worst air quality in the country, a situation that has earned it a slot on NPCA's Ten Most Endangered National Parks. The park's streams are tainted with high acidity, its ozone levels are worse than those in most major cities, and it has dramatically degraded views.

Thanks to opposition from a number of groups, including NPCA, the Clear Skies Initiative is stalled in Congress. But the Bush administration continues to lobby for it relentlessly, even though the legislation does not appear to be moving.

Nearly three years ago, President Bush announced that one of the goals of the National Parks Legacy was to reduce haze in the national parks, and to achieve this through Environmental Protection Agency action. Few would argue that this goal has been met. In fact, one western environmentalist suggests that instead, the Bush administration is, "covering up bad air with hot air."

Whatever you call it, so far, it has been nothing but bad news for Big Bend, Shenandoah, Mammoth, Yellowstone, and all the other national parks choking on the haze. In the president's own words, "Good stewardship of the environment is not just a personal responsibility, it is a public value. Our duty is to use the land well, and sometimes not to use it at all. This is our responsibility as citizens, but more than that, it is our calling as stewards of the earth."

Rob Schultheis is a journalist living in Utah who has written extensively about the environment.



CARR CLIFTON

Poor air quality and low visibility take away from the Great Smokies' natural beauty.

GEORGE H.H. HUEY

Labor of Love

Thousands of people across the country volunteer their time to help the understaffed and underfunded Park Service with duties that range from cataloguing species and petroglyphs to clearing trails.

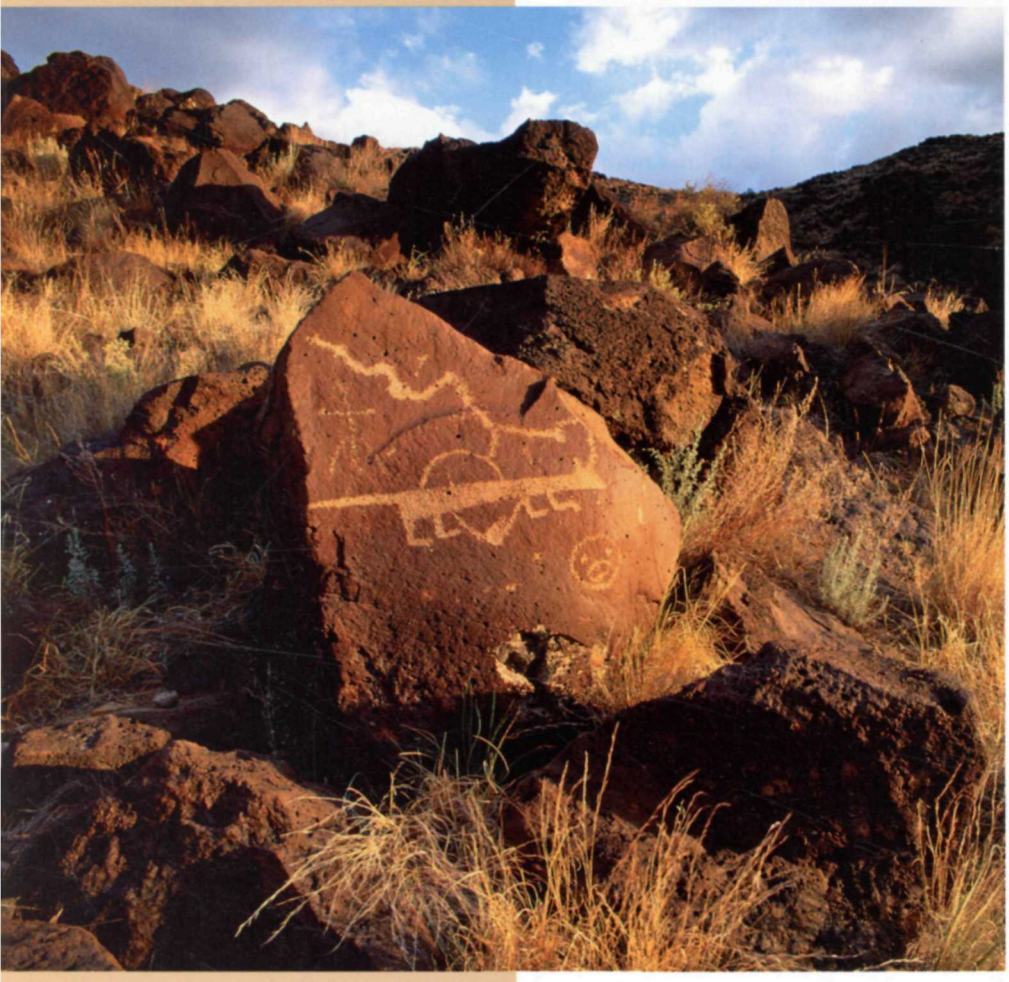
By Phyllis McIntosh

At Petroglyph National Monument in New Mexico, 15 volunteers—mostly retirees—have spent more than 15,000 hours scouring a 17-mile-long escarpment to locate and document the park's ancient rock carvings. Over the past six years, they have found 21,000 petroglyphs, again as many as were known when the park was established in 1990, and they expect to discover a few thousand more before concluding their search.

At Great Smoky Mountains National Park in North Carolina and Tennessee, hundreds of volunteers have joined with scientists in what is expected to be a 20-year project to inventory every species in the park, a list that could top 100,000. So far, they have discovered more than 2,700 life forms—from bats to slime molds—previously unknown to exist in the park and 380 that were completely new to science.

These are just some of the ways in which ordinary citizens are pitching in to assist an underfunded and understaffed National Park Service (NPS) and enhance the park experience for millions of visitors every year. They are part of the Park Service's Volunteers-In-Parks (VIP) program, which Congress authorized in 1970 as an official means for the agency to accept voluntary help and to provide volunteers with liability and workers' compensation coverage.

In fiscal year 2002, 125,000 VIPs contributed 4.5 million hours of service



GEORGE H.H. HUEY, RIGHT, NPS

Volunteers have found and documented more than 21,000 petroglyphs at Petroglyph National Monument, New Mexico.

at 340 national parks, monuments, battlefields, and offices. NPS calculates the value of their work at more than $72 million—a huge return on the $1.5 million the public invested in recruiting, training, and supporting the volunteers.

At Shenandoah National Park in 2002, for instance, 518 volunteers, 300 of them from the Potomac Appalachian Trail Club, donated 41,375 hours of their time, equating to roughly $668,000 of service, according to NPCA's State of the Parks report on the park. The State of the Parks reports assess the health of a park's resources, and a portion of the detailed report reviews the impact of too few staff and too little money. Each of the eight State of the Parks assessments completed so far mentions the importance of volunteers in caring for the parks but also points out that volunteers, although valuable, should not be a substitute for full-time staff. Shenandoah, for instance, reported in 2000 that it had 84 fewer full-time-equivalent employees than needed to protect resources and maintain high-quality visitor experiences.

"Without the work of volunteers, we would not be able to provide the level of service we are providing at this time," says Joy Pietschmann, service-wide coordinator of the VIP program. "Volunteers do some work that otherwise would not get done and free up staff for other tasks. Because of their contributions, we are better able to serve both the public and the resources throughout our system."

Retirees represent probably the largest single category of volunteers, but students, families, Boy and Girl Scouts, and various other groups also swell the ranks. Special interest organizations often offer their expertise to help out with special events or projects. The Christian Motorcycle Association, for example, assists with the annual Sturgis Rally, which attracts some 3,000 motorcyclists to Devils Tower National Monument in Wyoming.

One organization, the Student Conservation Association (SCA), specializes in placing young people in volunteer positions in national, state, and city parks as a way to interest the next generation in conservation. Every year, some 3,000 SCA members provide valuable service to the National Park Service.

LAURENCE PARENT

Apostle Islands is besieged by volunteer applicants eager to maintain its lighthouse.

NPS also recruits special groups of volunteers whose backgrounds and skills bring an extra dimension to their work. Through its International Volunteers-In-Parks program, more than 100 people a year come from all over the world to work on projects in America's parks and in return receive valuable training in park management, wildlife research, and environmental education. An Artists-In Residence program places volunteer visual artists, photographers, sculptors, performers, writers, and craft artists in 27 parks—from Acadia to Yosemite—where they present workshops and demonstrations for park visitors.

Through a partnership with the National Park Foundation and the Environmental Alliance for Senior Involvement, NPS has created a Volunteer Senior Ranger Corps, which enlists older adults to work with local youth on specific projects in more than a dozen parks. At Homestead National Monument of America in Nebraska, for example, Senior Corps volunteers and their young helpers have scanned and digitally archived an extensive collection of photographs of early homesteaders. NPS has also launched a Volunteer Laureate Program, Pietschmann says, to recruit experts, in fields such as geology and archaeology, who will travel to parks to assist with projects as needed.

JEFF HENRY

A volunteer, in red, helps Park Service employees record data at Yellowstone.

Throughout the park system, volunteers of all ages, interests, and skills are lending a hand. Many perform routine maintenance—clearing trails, picking up litter, removing graffiti, eradicating invasive plants, maintaining gardens, landscaping grounds, and repairing historic structures. At park headquarters, volunteers staff visitor centers and bookstores, organize libraries, set up computer systems, and catalogue museum items. Still others conduct education

In 2002, volunteers kept tabs on condor nesting sites along the rim of the Grand Canyon and monitored sea turtle nests at Hawaii Volcanoes National Park, Padre Island National Seashore in Texas, and Buck Island Reef National Monument in the Virgin Islands.

programs, talks, and tours, serve as campground hosts, and portray living history characters.

Not surprisingly, a number of volunteer jobs center around wildlife. In 2002, volunteers kept tabs on condor nesting sites along the rim of the Grand Canyon and monitored sea turtle nests at Hawaii Volcanoes National Park, Padre Island National Seashore in Texas, and Buck Island Reef National Monument in the Virgin Islands. On Saint Croix National Scenic River in Wisconsin, 26 high school students and their teacher spent 750 hours measuring and identifying freshwater mussels to help NPS protect the river's diverse mussel population from the non-native zebra mussel.

At Channel Islands National Park off the southern California coast, hardy volunteers hiked to remote locations of Santa Cruz Island to help spot and capture golden eagles that were preying on native foxes. Last summer, volunteers also could sign up to help survey sport fish populations at Biscayne National Park in Florida and count bison in Yellowstone.

At some parks, volunteers assist with the important job of visitor safety. During summer 2002, Preventive Search and Rescue volunteers at the Grand Canyon aided more than 118 inner canyon hikers and checked to make sure that hundreds more had adequate food, water, and equipment. At Klondike Gold Rush National Historical Park in Alaska, an SCA volunteer helped to escort two disoriented hikers back to park headquarters and treat them for hypothermia. Roving volunteers patrol cycling trails and hike cliffs along the Potomac River at Great Falls Park outside Washington, D.C., providing information, checking on visitor safety, and rendering first aid when needed.

JEFF HENRY

Volunteers build a snow shelter.

Some park tasks defy categorization. Volunteers have removed candle wax and lint along the Candlelight Cave Tour route at Jewel Cave National Monument in South Dakota; placed 23,110 candles on Antietam National Battlefield for a memorial illumination at the Maryland Civil War site; aided in restoring a historic square rigger at Salem Maritime National Historic Site in Massachusetts; and helped visitors find names on the Vietnam Veterans Memorial on the National Mall in Washington. At Big Cypress National Preserve in Florida, a retired naval officer fills backpacks with essential supplies for sixth graders' field trips and leads some of the students on forays into the swamps as a volunteer with the Parks as Classrooms program.

A few jobs are particularly enticing. Every summer Apostle Islands National Lakeshore at Lake Superior, Wisconsin, is swamped with applicants eager to serve as volunteer lighthouse keepers. At Denali National Park and Preserve in Alaska, some 75 volunteers—mostly seasonal employees at nearby hotels—sign up to walk or run the park's 30 sled dogs during cool summer evenings. In the winter, the dogs work steadily on sled patrols of the park, but in the summer their exercise is otherwise limited to pulling wheeled sleds around a track during visitor demonstrations. Some volunteer dog walkers become so attached that they adopt their canine friends when the dogs retire from the park around age nine, says kennel manager Karen Fortier.

Park personnel say it is impossible to overstate the value of their volunteers. Diane Souder, chief of interpretation and outreach at Petroglyph National Monument, calls the work of the volun-

KENNAN WARD

Last year, volunteers counted bison at Yellowstone National Park.

BILL UPDIKE/WAYFARER PHOTOGRAPHY

Volunteers help visitors find names at the Vietnam Veterans Memorial on the National Mall.

For information about volunteering in the national parks and a list of current opportunities, log on to **www.nps.gov/volunteer.** Even vacationers are welcome to pitch in and help with short-term projects at some parks. Check at the visitor center or call ahead to the park you will be visiting to learn about opportunities.

For more extensive information about volunteering on federal lands, including those administered by the U.S. Fish and Wildlife Service and the Bureau of Land Management, check **www.volunteer.gov/gov.**

teers there "priceless both in terms of resource protection and in terms of visitor understanding." Until the volunteer team located and documented the thousands of petroglyphs, "we just didn't have a clue as to the extent of the cultural resource here."

Jeanie Hilten, coordinator of the Discover Life in America species inventory project at Great Smoky Mountains National Park, notes that volunteers serve an important educational role in the community. "Besides helping us directly with the project, they spread the word to family and friends about the importance of biodiversity and our concerns about threats to the park's resources."

To recognize and encourage its most loyal VIPs, the Park Service is in the process of creating a Master Volunteer Ranger Corps to honor those who donate at least 500 hours each year and a Presidential Volunteer Ranger Corps to pay tribute to the more than 500 volunteers who already have accumulated at least 4,000 hours of service.

Many volunteers feel they are rewarded every day they spend in the park. "It is so great just to get outside and climb over the rocks under that beautiful sky," says Jean Brody, a veteran volunteer at Petroglyph National Monument. "The second reward is thinking about the people who created these drawings hundreds or even thousands of years ago and trying at least a bit to get inside their minds." Then, there is the simple joy of working with people of similar interests. The petroglyph group has enjoyed such camaraderie that, with their work at the monument nearly complete, they are going out as a group to document petroglyphs on other public and private lands.

NPCA research indicates that there is still "a huge potential reservoir of people who are open to the idea of volunteering some of their time on behalf of the parks," says Mark Peterson, director of NPCA's State of the Parks Program. In preparing the first four of its State of the Parks Assessments—for Adams National Historical Park in Massachusetts, Glacier National Park in Montana, Point Reyes National Seashore in California, and Rocky Mountain National Park in Colorado—NPCA surveyed people in gateway communities about their willingness to volunteer in the parks. "What surprised us was that about 40 percent of those responding said they would be interested in volunteering," Peterson says. "We found this not just in one park but consistently." The irony is that the parks are not equipped to take full advantage of this wealth of volunteers. "Volunteers do not come free," Peterson says. "To make effective use of volunteers' time requires an investment of park staff to train and guide them and nurture the relationship. But the parks are stretched thin just trying to meet everyday demands and do not have the leisure of being able to accept an unlimited number of volunteers."

Still, Peterson adds, the National Park Service, along with other federal agencies, often attracts more volunteers than it can effectively use. Why are so many people willing to donate their precious time? "I think it means that the Park Service is held in such high esteem by the public that they're eager to associate themselves with it," he says. "Also, people truly do love the parks and being in the parks, and volunteering is a way to give back what the parks have given them."

Phyllis McIntosh last wrote for *National Parks* about Little Bighorn Battlefield National Monument.

Getting the Picture

Hawaiian picture-wings are among the most remarkable of the islands' 10,000 native insect species.

BY JENELL TALLEY

A word of advice before you unconsciously swat the next pesky fly buzzing over your head: don't, not if you're in Hawaii. You could be contributing to the extinction of threatened Hawaiian picture-wings, special breeds found only in the 50th state.

Picture-wings are part of the Hawaiian *Drosophilidae* family, widely considered the most remarkable and intensively studied group of the state's nearly 10,000 native insect species. More than 500 species of *Drosophilidae* have been named and described; an additional 250 to 300 await identification at the University of Hawaii.

KENNETH KANESHIRO

Picture-wings, two of which are shown here facing each other, have spectacular courtship displays.

Drosophilidae—both its *Drosophila* and *Scaptomyza* genera—are renowned in the scientific community. The flies are viewed as model organisms. The genera help scientists better understand how new species are formed. New theories of evolutionary biology have been developed and tested as a result of research that has been conducted on the *Drosophilidae* family, particulary picture-wings, part of the *Drosophila* genus.

"Research on this group of insects from every aspect of biology has enabled scientists to not only test classical concepts of biology, but, more important, it has provided an opportunity to formulate new ideas," says Dr. Kenneth Kaneshiro, director of the Center for Conservation Research and Training at the University of Hawaii.

"This group has been recognized as one of the best groups for investigating the dynamics of evolutionary process," he says. It has been illustrated in biology texts as examples of historical biogeography and the radiation of species.

Although the *Drosophilidae* family may be represented by more than 1,000 species, some of those individuals' numbers are falling. Picture-wings, like numerous Hawaiian species—25 percent of the country's endangered and threatened plants and birds are found in Hawaii—are one such example. Some scientists worry that the species eventually could be eradicated.

Biologists at the University of Hawaii and the Pacific Island Ecosystems Research Center have surveyed picture-wings in Hawaii Volcanoes National Park since 1971. Results suggest a long-term decline for many species. Some populations are so small they could be eliminated by a natural event such as a hurricane.

In January 2002, the U.S. Fish and Wildlife Service announced plans to list 12 species of picture-wings as candidates for the Endangered Species list. Several other species were named shortly thereafter, expanding the candidate list to 15. Researchers believe that number could grow to 50 once more data are gathered.

About one-third of the world's *Drosophila*, including picture-wings, occur only in Hawaii. The species are located throughout the high islands of the Hawaiian archipelago, a group of 132 islands, reefs, and shoals that includes Haleakala and Hawaii Volcanoes national parks and stretches some 1,500 miles.

Each picture-wing proposed for listing as endangered is found on only a single island. Each breeds in only one or a few related plant species, some of which also are threatened or endangered.

JENELL TALLEY *is a staff writer.*

Several species of picture-wings are found within certain areas in Haleakala National Park. They are more widespread in Hawaii Volcanoes National Park. The flies are associated with native plants in both wet and dry conditions in both parks.

The species are restricted to native Hawaiian ecosystems, most of which are found in higher elevations with cooler temperatures, and likely could not survive outside of such habitats. If, say, the male flies are exposed to temperatures above 70 degrees Fahrenheit, even for a few minutes, they could become sterile.

Individual species, however, have adapted to various environments within the ecosystems. Some occupy dry forests; others live in rainforests. For this reason, biologists and scientists believe that picture-wings represent an extraordinary case of habitat-specific evolution, perhaps more than any group of animals in the world.

"Any impact on these native ecosystems will have consequences on these insects," says Kaneshiro, "which are, for most of the species, [already] found in relatively low population sizes."

Hawaiian *Drosophila* became threatened when humans and invasive alien species, such as the non-native western yellowjacket wasp, began to inhabit the islands, according to Kaneshiro. Habitat degradation caused by alien weeds and wild animals, such as mouflon sheep, deer, and pigs, also have contributed to the species' declining numbers. Habitat lost or damaged because of fire, biological pest control, and predation from alien insects, particularly ants and wasps, have played a part in the picture-wings' threatened status, as well.

Collectively, picture-wings, often referred to as the "birds of paradise" of the insect world because of their spectacular courtship displays, are the largest *Drosophila* species, although their morphologies, size, and color are varied.

Many are about the size of common houseflies, mammoth compared with their mainland relatives, with wingspans exceeding 20 millimeters. Others are extremely small, with less than a five-millimeter wingspan. Some are a shiny black with no markings on the wings, while others have color patterns on their body, abdomen, and head and elaborate markings on their wings.

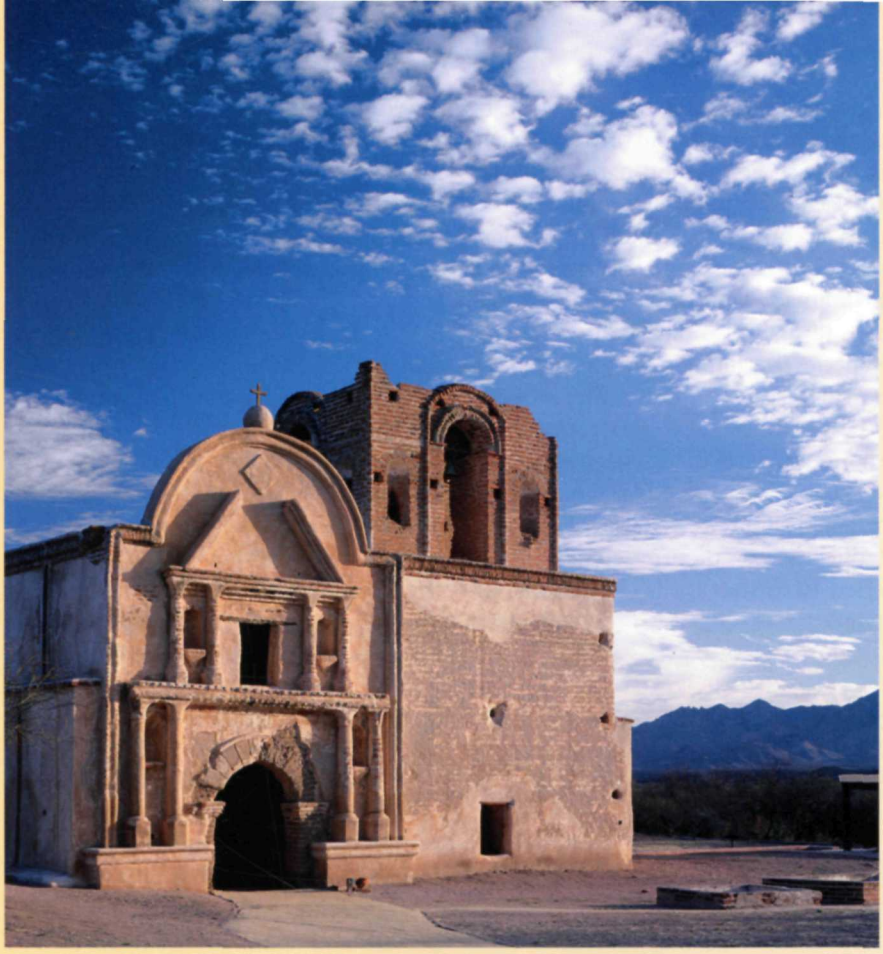
The flies have three main body parts: a head, thorax, and abdomen. Two antennae protrude from the front of the head between their eyes. Their wings and three pairs of legs are attached to the thorax.

Their lifespan varies, depending on the species. Some live only a few days, whereas others live close to a year and are sometimes kept alive in a laboratory.

Hawaiian picture-wings and other *Drosophilidae* have supplied the scientific community, and the general public, with a wealth of biological knowledge over the years.

"The results [of research on the genus] have been applied to...controlling agricultural pests, such as tephritid fruit flies—Mediterranean fruit fly, Oriental fruit fly—and we are now beginning to use these flies for biomedical and pharmaceutical research," Kaneshiro says.

Protecting the picture-wing species, and the rest of the *Drosophilidae* family, by preserving and restoring its natural habitat and eliminating invasive alien species is vital. The benefit to humankind is too great not to.



LAURENCE PARENT

Tumacácori tells the story of southern Arizona's natives and its first European settlers.

From the desert bloom at Saguaro National Park to conquistadors at Coronado, southeastern Arizona offers a diversity of landscapes and history. Here are five national park units that should not be missed on any week-long trip to the area.

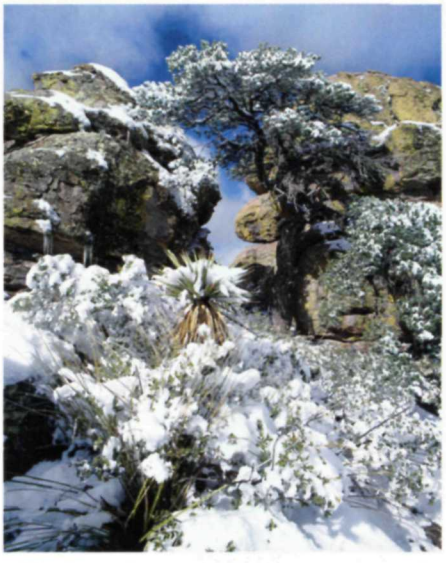
A TRIP TO *Tucson* COUNTRY

By Bill Updike

Funky and fun, Tucson, Arizona's rich natural and anthropological history reflects a diverse heritage primed for discovery. Though less cosmopolitan than Phoenix, Tucson ambles in a way that seems more appropriate to the old West and southern Arizona.

The scenery surrounding the city is outstanding, and its weather, legendary. Tucson rests in the midst of four mountain ranges: the Santa Catalinas to the North, the Rincons to the East, the Santa Ritas to the South, and the Tucsons to the West.

In the wintertime, visitors might be treated to one of the rare storms that blanket the higher elevations with snow. If you happen to be in Tucson on such a day, head to the foothills for a hike from the arid desert into a forest of snow-covered cacti.



GEORGE H.H. HUEY

Mexican pinyon pine, Schotts yucca, and beargrass decorate Chiricahua in winter.

Spring is also an excellent time to visit Tucson and tour the region's national parks. In March, depending on the winter rains and snowfall, wildflowers begin to reveal themselves. Gold poppy, desert marigold, globemallows, penstemon, verbena, larkspur, and desert lupine cover the desert in a cornucopia of color. If you're more interested in flowering cacti, April and May are the best months to visit, when saguaros, various cholla, prickly pear, pincushions, hedgehogs, and claret cups bloom during these months and occasionally into June.

Tucson boasts a long history of human habitation and functions as a good jumping off point for visitors interested in learning about the history of southeastern Arizona. Tucson provided shelter for various people: the ancient Hohokam, more modern Pimas, Spanish explorers and missionaries, and later settlers.

A week-long vacation could be spent exploring Tucson. However, for a more expansive and inspiring immersion, visitors should step out of the city and into the area's national parks.

Saguaro National Park

Because of its proximity to downtown Tucson, Saguaro National Park should be a first stop for visitors to the southeastern Arizona parks. The park protects thousands of acres of desert plants and wildlife, including stands of its namesake, the saguaro cactus. Called the "monarch of the Sonoran Desert," the saguaro exhibits fascinating adaptations to the tough desert environment.

Ancient and modern American Indians used parts of the saguaro for food, ceremony, and shelter. Evidence of the Hohokam, or "those who have vanished," appears in petroglyphs in the park's western section. Visit Signal Hill to see some examples. For hiking options, both the East and West districts offer many excellent trails of moderate to difficult challenge. Those interested in the backcountry experience should head to Saguaro East, which features many trails in the Rincon Mountains.

For more information on the park, visit www.nps.gov/sagu/index.htm or call 520-733-5158.

Tumacácori National Historical Park

Tucson's next nearest national park unit, Tumacácori National Historical Park, relates the history of Spanish missionaries in the "New World." Originally founded as the Mission San Cayetano de Tumacácori (later changed to San José de Tumacácori) by the legendary Jesuit Eusebio Francisco Kino in January 1691, the mission was created to convert the local Pima Indians to Christianity.

In 1767, the Spanish King Charles III banished the Jesuits, for political reasons, from Spain and all of her colonies worldwide, including the Pimería Alta. The Franciscan order took over the area and, circa 1800, Fray Narciso Gutiérrez began working with masons and Indian and Spanish laborers on a church at Tumacácori to replace the previous Jesuit structure. However, because of warfare and the mission's relative poverty, the church would not be completed until the 1820s.

GEORGE H.H. HUEY (2)

The Franciscan-built church at Tumacácori.

Saguaro National Park protects thousands of acres of desert plants, including its namesake, the saguaro catcus, seen above with teddy bear cholla and brittlebrush.

Park visitors can marvel at what remains of the 1800s structure and imagine the struggles that the early missionaries faced. On your way from Tucson, be sure to visit the impressive San Xavier del Bac mission. Called the "White Dove of the Desert," San Xavier del Bac was the third mission of Arizona. It became the principal mission at the beginning of the 19th century. For more information about Tumacácori National Historical Park, visit www.nps.gov/tuma/ or call 520-398-2341.

MATT KANA

Coronado National Memorial

Another park that tells the story of the early Spanish exploration of the American Southwest, Coronado National Memorial marks the countryside where explorer Francisco Vásquez de Coronado first led his detachment into Arizona in 1540 during the search for the fabled "Seven Cities of Cibola." Although the cities were said to be "large…with streets lined with goldsmith shops, houses of many stories, and doorways studded with emeralds and turquoise," the expedition never found any wealth in the modest pueblos of the region. Rather, the explorers discovered hardship and encountered indigenous peoples of the Southwest. The unsuccessful journey terminated after reaching the Great Plains of Kansas. Coronado would later face judgment for his improper treatment of the Indians on his return to Mexico in 1542.

Many stories surround the expedition: from Spanish explorers, to Franciscan priests, to a Plains Indian that Coronado's people called "The

LARRY ULRICH

The Coronado monument tells the story of Spanish exploration of the American Southwest.

Turk," who was determined to lead the expedition to the Plains where, it was hoped by the beleaguered Indians, the Spanish would perish. Visitors can hike the short Coronado Peak Trail at Montezuma Pass for an expansive view of the San Rafael Valley (looking west), and the San Pedro Valley in Mexico. From that location, visitors can imagine the legion of Spaniards, with their coats of mail and shiny helmets, searching for gold and fame and finding dust and iniquity.

For more information on the park, visit www.nps.gov/coro/ or call 520-366-5515.

Fort Bowie National Historic Site

Continuing the tour east from Tucson and into more modern times, Fort Bowie National Historic Site chronicles the battles between the U.S. government and the Apache Indians. Fort Bowie was originally constructed in 1862 to secure safe passage through the pass and access to Apache Spring, what the Spanish called "Puerto del Dado" (the "Pass of Chance"). The fort provides a look at a complicated affair in U.S.-American Indian relations.

In 1861, a band of Apaches raided a ranch and kidnapped the son of a Mexican woman living on the ranch. The settler, John Ward, wrongly claimed that the Chiricahua Apache

GEORGE H.H. HUEY (2)

Fort Bowie National Historic Site chronicles the battles between the U.S. government and the Apache Indians.

The Chiricahua Mountains' ecosystem differs from the surrounding low desert. The land boasts a diverse collection of trees, plants, and wildflowers.

chief, Cochise, and his men were responsible and demanded that something be done. Second Lt. George Bascom entered Apache Pass and invited Cochise into his tent, and informed the Chiricahua leader that they would hold him hostage until the boy and the settler's stock were returned. Offended by Bascom's implications, Cochise knifed his way through the tent and escaped. Cochise began warring on U.S. soldiers and settlers in the area. Between 1862 and 1886, soldiers from Fort Bowie campaigned against Apaches, first led by Cochise and then by the famous Geronimo.

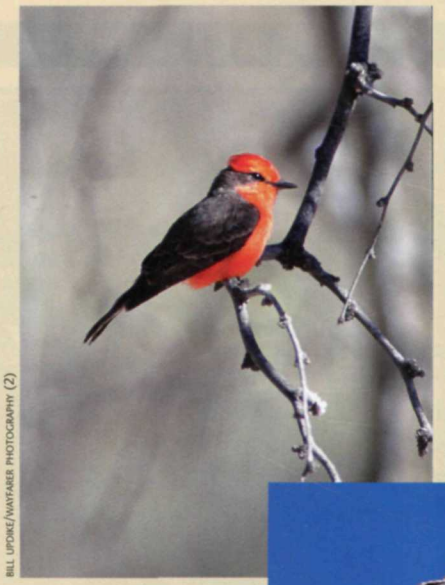
Unlike most national park units, Fort Bowie can be accessed only by a 1.5-mile hiking trail. The hike makes the discovery of the ruins of the Butterfield Stage Station and the fort rewarding and provides visitors with an opportunity to experience the beauty of the area's high desert. When traveling during the warmer months, remember to bring a lot of water and sunscreen.

For information on the park, visit www.nps.gov/fobo/ or call 520-847-2500.

Chiricahua National Monument

The final stop on the tour of the southeastern Arizona parks, Chiricahua National Monument provides an excellent setting for understanding the human history of the region as well as immersing yourself in the area's interesting natural environment. Named after the

Birding in Southeastern Arizona



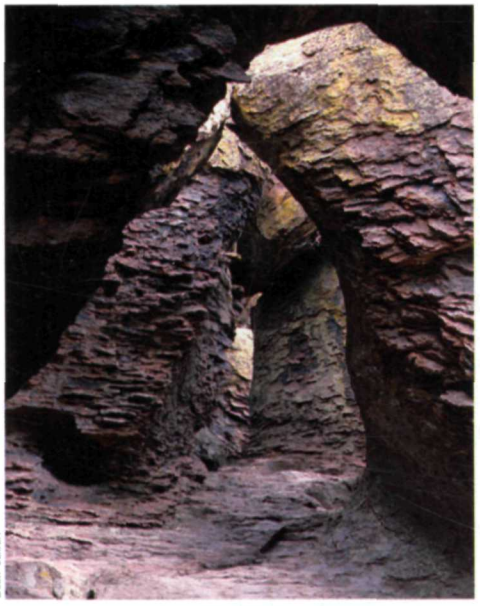
BILL UPORE/NATFABER PHOTOGRAPHY (2)

A male vermillion flycatcher at Agua Caliente Park, Tucson.

In addition to its natural splendor and anthropological intricacies, southeastern Arizona is famous for its birds. Saguaro National Park boasts many birds, including Gila woodpecker, gilded flicker, cactus wren, phainopepla, and elf and screech owls. Observant visitors might see hummingbirds, acorn woodpeckers, gray-breasted jays, spotted towhees, painted redstarts, white-winged doves, and Montezuma quails at Coronado National Memorial. Because of its proximity to the Mexican Sierra Madres, Chiricahua National Monument also has many unusual birds, such as the hepatic tanager, red-faced warbler, and the outstanding elegant trogon.

Outside of the national parks are a number of wonderful birding sites. Some local favorites include Agua Caliente Park, Buenos Aires National Wildlife Refuge, Cave Creek Canyon in the Chiricahuas, The Nature Conservancy-run Patagonia-Sonoita Creek and Ramsey Canyon preserves, and the Willcox Playa. For a more extensive list of the Southeastern Arizona Birding Trail, visit www.seazbirding.com.

A cactus wren, atop a saguaro cactus, is one of many species to be seen in the Southwest.



LARRY ULRICH

Welded tuff columns at Chiricahua.

Chiricahua Apaches, who called it the "Land of Standing Up Rocks" (English translation), the monument's most dramatic characteristic is its hoodoos, spires, columns, and balanced rocks formed from volcanic eruptions and erosion millions of years ago.

One of the area's "sky islands," the park's ecosystem is much different from the surrounding low desert. Abounding in trees, plants, and wildflowers and receiving more precipitation than the desert, the Chiricahua Mountains boast a diversity of plant and animal life. Lucky visitors can spy rare animals, including coatimundis and peccaries (also called javelinas), and colorful birds.

Because of their fruitfulness and relatively moderate climate, the Chiricahuas provided a haven for the Apaches and later pioneers. Among the early settlers were Swedish immigrants Neil and Emma Erickson and the Stafford family. A daughter of the Ericksons, Lillian, and her husband Ed Riggs, turned the homestead into a guest ranch in the 1920s. Lillian dubbed it Faraway Ranch, because it was so "godawful far away from everything." It was largely through the work of Lillian and Ed that the area first received attention and was later designated a national monument.

Visitors can explore Faraway Ranch, Stafford Cabin, and the more than 17 miles of trails in the park. A campground is open all year on a first-come, first-served basis. For more information on the park, visit www.nps.gov/chir/ or call 520-824-3560.

Bill Updike is a writer living in Washington, D.C., who formerly lived for a time in Tucson.

GEORGE H.H. HUEY

The historic Faraway Ranch at Chiricahua was a guest ranch in the 1920s.

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Parks for Sale

In a quest for funds, park managers are employing methods to raise money that compromise the ideals used to establish the National Park System.

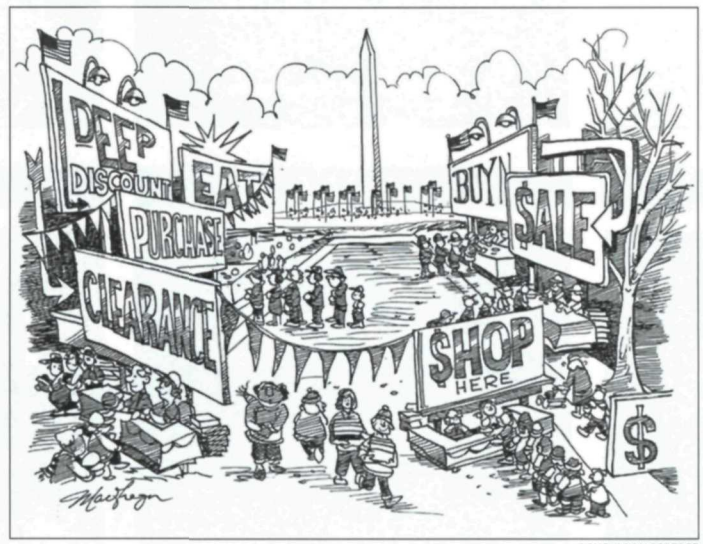
BY BRUCE CRAIG

Our national parks have always been at risk. In the early days, commercial railroads and immense hotels constructed in key scenic areas posed the greatest threats. Today, the integrity of our National Park System is endangered by a critical lack of funds. The resulting trend toward commercialization puts the entire system at risk.

Despite an infusion of money over the past decade, a multi-billion dollar repair and maintenance backlog remains. Federal salary costs and ever-rising operational expenses each year eat away at the meager increases. As a consequence, park managers are forced to slash operational budgets, in some cases by 40 to 60 percent. The result? Peeling paint and potholes, loss of interpretive and educational programs, and elimination of seasonal ranger positions.

The Bush administration's answer has been to push the Park Service increasingly toward privatization. The administration is subjecting up to 58 percent of Park Service jobs to a process that could leave many of them in private hands. Even more disturbing is a trend among park managers to raise money from the private sector.

Commercial sponsorship in the parks always has been a controversial subject within professional park manager circles. In the late 1990s, the Park Service was forced to reject a plan that would have enabled corporations to become "official sponsors" of the parks. Under the Clinton administration plan, corporations would have been able to make tax-free contributions to the Park Service and buy the naming rights of park units.



DOUGLAS MACGREGOR

The Bush administration, however, has a different view toward corporate support for the parks. Earlier this year, Interior officials embraced a commercial sponsorship scheme advanced by Pepsi Corporation to kick-off the National Football League season by featuring giant Pepsi-Vanilla banners on the grounds between the U.S. Capitol and the Lincoln Memorial. Critics were rightly outraged at the dimensions of the commercial displays that had no legitimate place on the National Mall in the first place—a display that led to a congressional backlash and new restrictions.

At General Grant National Memorial in Manhattan, Park Service officials approved an invitation-only event attended by 600 people—a taping of a musical performance by pop music diva Beyoncé Knowles slated for broadcast on the 4th of July as part of the Macy's Independence Day television special. In the past, park guidelines have forbidden such activities in parks unless they have "a meaningful association between the park area and the events."

Though one could argue that practically any 4th of July event could be considered "patriotic" in nature and hence have a connection to the site, the program at Grant's tomb possessed no meaningful connection to Grant. It was a mockery of policy and disrespectful of the final resting place of a president and a national hero.

At Golden Gate National Recreation Area, managers approved a fundraising program where boxed chunks of the famous federal prison on Alcatraz Island are sold as souvenirs. The sale of chips off the old cell block to tourists may make a little money for the park, but the sale of cultural remnants and specimens

BRUCE CRAIG, *a former national park ranger, is the director of the National Coalition for History, a Washington, D.C.-based advocacy organization, and president of the Conservation and Preservation Federation of America.*

is a dangerous deviation from time-honored Park Service historic preservation policies and practices. Management guidelines state that the sale of "any object or item that is fashioned from or incorporates parts" of various classes of historic resources and objects "is an offense against the ethical standards upon which the service was founded."

Today, like many former Park Service employees, I'm offended by such fundraising schemes. I'm offended by the bombardment of corporate and commercial messages on billboards that line the way to park entrance stations, by corporate logos plastered on park literature, and by corporate "recognition" statements on visitor center and traveling exhibits. Most of all, I'm offended by the "beggar-bear" mentality that permeates the ranks of park management.

In this country, we are bombarded by commercial messages and incessant corporate advertising. Shouldn't national parks be treated differently? Shouldn't they be the one place deemed to be commercial-free zones? National parks are places where we can be free from anxiety, city noise, and pollution. They should be places we can go to relax, appreciate the solitary value of wilderness, and educate young people to appreciate the value of sanctuary for wildlife. At historic sites, we should be free to contemplate the events that have shaped our nation's history without a corporate message promoting the local wax museum or trinket shop. Battlefields and national cemeteries should remain places where we can pass on our democratic values to the next generation and teach them the importance of paying homage to the sacrifices of our ancestors.

Alternatives to commercialization may involve steps the administration, taxpayers, and some park users may not be prepared to embrace. First, we must be prepared to accept higher admission and user fees, and all of these funds must be dedicated to the Park Service.

Concession operations that include the thousands of campgrounds, restaurants, and hotels in the parks must be opened up to more frequent competitive bidding.

And as Americans we must be willing to tell President Bush and members of Congress that we are willing to pay higher taxes, provided that more federal money is dedicated to the parks. More than $1,500 for every man, woman, and child in America is now dedicated to finance the reconstruction of Iraq. Are we each prepared to devote an additional $15 annually for the parks? This amount alone would double the Park Service's budget and allow us to enjoy our national parks "unimpaired" for the "enjoyment of future generations" as mandated in the Park Service's 1916 Organic Act. With such an influx of public money, the Park Service could afford to abandon commercial schemes. We cannot permit the Park Service to sacrifice its ideals for the mighty buck.

Humble Beginnings

This national monument is dedicated to one of the country's most influential and, at times, controversial leaders of the late 1800s.

PAT & CHUCK BLACKLEY

This site honors a renowned educational leader, social activist, lecturer, and author. The site's namesake was born into poverty in 1856 on a tobacco farm within the confines of a tiny kitchen cabin (reconstructed in the photo above). With no money but eager to learn, the undeterred future scholar worked as a janitor to pay for a higher education. He later became an instructor at the school he attended. He was appointed president of another Southern college and served as an advisor to numerous business leaders and several presidents, including Theodore Roosevelt. Have you visited this park? Do you know which one it is? [ANSWER ON PAGE 7.]

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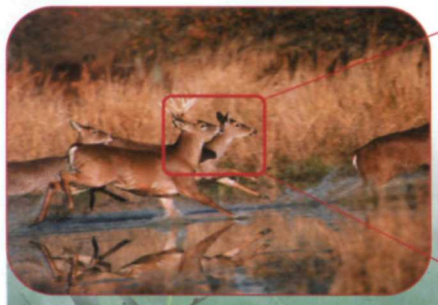

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