THE MAGAZINE OF THE NATIONAL PARKS CONSERVATION ASSOCIATION SUMMER 2010

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National PARKS

Fiery volcanoes, black-sand beaches, and lush valleys in the land of extremes

BIG CYPRESS IN BLACK & WHITE TOMORROW'S PARK VISITORS BURIED TREASURE IN LAS VEGAS

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A FERN BRINGS LIFE to a hardened lava bed in Hawai'i Volcances National Park.

> COVER PHOTO: SPECTATORS WATCH a lava explosion on the island of Hawai'î.

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As America's demographics begin to shift, so do the ways people connect to the national parks. By John Grossmann

Hawai'i: Life in the Extreme

With its black-sand beaches, dramatic valleys, ancient cultures, and temperamental volcanoes, the island of Hawai'i offers something for everyone. *By lan Shive*

Wading Into Wilderness

Photographer Clyde Butcher has focused his lens on Big Cypress National Preserve for nearly three decades, drawing thousands of visitors to a park that is too often overlooked. By Amy Leinbach Marguis

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By Ethan Gilsdorf



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Taking the Long View

s President Obama said at a White House conference on public lands in April: "Even in times of crises, we're called to take the long view to preserve our national heritage—because in doing so we fulfill one of the responsibilities that falls to all of us as Americans, and as inhabitants of this same small planet." President Obama used the conference as an opportunity to announce his America's Great Outdoors initiative, a collaborative effort

our history.



Outdoors initiative, a collaborative effort that will seek the best ideas on conservation, determine how these ideas can be pursued so that local communities embrace them, and explore how the administration can be more responsible stewards and promote conservation. Obama's administration will have to pursue those commitments as the nation grapples with one of the worst environmental disasters in

Just four days after the White House Conference, disaster struck the Gulf of Mexico when an offshore oil rig exploded and sank, killing workers and spewing millions of gallons of crude oil into the waters of the Gulf. The oil threatened the beaches, national seashores, and cultural treasures along Florida, Louisiana, and Mississippi, killing shorebirds and fish, destroying economies, and bringing more hardship to an area of the country still reeling from the damage brought by Hurricane Katrina. And it sent an unseen toxic cloud into the sea, with long-term consequences not yet completely understood.

The disaster is a tragic backdrop for America's Great Outdoors. This welcome initiative, which seeks to bring a more holistic approach to land management, encouraging collaboration among government agencies and private citizens, and tying the First Lady's initiative of getting young people away from their electronic distractions into our national parks and other public lands, is long overdue. But the disaster in the Gulf points out how far we need to go to ensure even fundamental protections of the lands we already have.

There is evidence that President Obama's administration is committed to addressing this issue and ensuring a legacy as great as that of Theodore Roosevelt, who held the first White House conference on public lands a century ago. President Obama, who has taken his wife and daughters on summer vacations in Yellowstone and the Grand Canyon, appears committed to hearing from many voices that have not been engaged in the public lands debate in years past (see related story, page 32).

This summer, the Administration intends to hold public forums in cities and towns around the country, and our goal is to ensure that national parks are a centerpiece in the America's Great Outdoors Initiative. Our national parks have an important role to play in land conservation, wildlife protection, outdoor recreation, and education opportunities for children and adults. Americans want to leave our country to the next generation in better shape than we received it. America's Great Outdoors provides an opportunity to make sure it happens, so that our national parks, wild lands, and cultural sites remain for our children and grandchildren to enjoy.

Roman Riema

Thomas C. Kiernan

EDITOR'S NOTE

The Whole Spectrum



A hiker looks out over the landscape of Joshua Tree National Park.

n the last few years, I've visited Acadia and Bryce Canyon, Ellis Island and Ford's Theatre, and yes, Yellowstone and Yosemite. And as diverse as these parks are, they all have one thing in common: They are populated almost entirely by crowds of white, middle-to-upper class Americans, skewing toward the older set. There may be a group of ethnic minorities or international visitors, and a few college students with a mix of racial backgrounds, but the population of park-goers clearly doesn't mirror our country's population. Many reasons have been offered up to explain this discrepancy, from access to transportation and cultural differences regarding certain outdoor activities to the simple idea that people don't generally feel welcome in a place where no one looks like they do. Regardless, it's clear that millions of people who "own" these parks simply aren't experiencing them.

Not everyone likes camping, hiking, birding, or biking. But with 392 national parks full of our country's most amazing scenery and historical artifacts—all interpreted by brilliant, passionate people in uniform—there's something for just about everyone. If you value these places, and recognize that they will thrive only as long as all Americans appreciate them, you quickly understand that without the support of people of every race, background, and walk of life, the parks won't thrive very long at all.

The challenge of appealing to more culturally diverse audiences involves asking some fascinating questions, and some interesting answers are already emerging. Turn to page 32 to learn more about how the Park Service and friends groups are working to broaden the parks' appeal to people of all backgrounds, and why it really matters.

SCOTT KIRKWOOD NPMAG@NPCA.ORG

4 NATIONAL PARKS

National PARKS

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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

National Parks magazine fosters an appreciation of the natural and historic treasures found in the parks, educates readers about the need to preserve those resources, and illustrates how member contributions drive our organization's park-protection efforts. The magazine uses the power of imagery and language to forge a lasting bond between NPCA and its members, while inspiring new readers to join the cause.

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. Please sign up to receive Park Lines, our biweekly e-mail newsletter. Go to www.npca.org to sign up.

HOW TO DONATE

To donate, please visit www.npca.org or call 800.628.7275. For information about bequests, planned gifts, and matching gifts, call our Development Department, extension 145 or 146.

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If you have any questions about your membership, call Member Services at 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.

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LETTERS

AN AMERICAN HERO



We were thrilled to learn that our readers were as charmed by Glacier National Park's Ranger Doug Follett as we were ["The Voice of Glacier," Spring]. One woman suggested the Park Service create an archive of oral histories by park rangers. A few members called in to request copies of Doug's poems and travel information for a park they'd never considered visiting until now. An editor with Seven Stories Press in New York City even encouraged Ranger Doug to publish a book of his poetry. "After getting married in the Upper Peninsula of Michigan last summer," she wrote, "my new husband and I took a six-week road trip and visited 11 national parks. Glacier was our very favorite. I was riveted when I read your article in the magazine." Read on to see what others had to say:

Two years ago, my wife and I were privileged to attend an evening program at Glacier National Park led by Ranger Doug Follett. Watching him struggle with the audio equipment, we first thought that this guy was some "second stringer." But when he began to talk, we quickly realized that we were in a remarkable place with a remarkable man. He inspired us and made us laugh. His knowledge of and passion for the park could not be hidden by his selfdeprecating humor and homey stories. He made us want to reach for and protect the best things around us—our natural world, our fellow travelers, and our national parks. We couldn't agree more with Ranger Follett when he says, "Every time you turn around in a national park, you have a once-in-a-lifetime experience!" Thanks for highlighting this amazing person.

> RON HALL Cicero, IN

I've just finished reading the interview of Douglas Follett and watching the video online. What a beautiful story of a man dedicated to such a beautiful place. His storytelling offers a connection to nature that we all need to survive. I have never been to Glacier National Park, but now very much want to go there and experience it for myself.

MAGGIE STONE Battle Ground, WA

Thank you so much for the interview and video with Doug Follett. I was so touched by this man's experiences, and especially his poetry. I started writing poetry a number of years ago but stopped for a while due to health issues. Reading Mr. Follett's poems has inspired me to begin writing again.

MARGARET McMILLAN Waco, TX

Ranger Doug Follett is absolutely right about Americans' feelings toward our national parks. I have long considered our parks to be the only respite from the world—a veritable cathedral created by our Maker for us to commune with Him and with our fellow creatures. Our national parks show the best of America and are quickly becoming the last vestiges of an America treasured by generations. Every day I pray to find some way to save this magnificent land, hoping that by our American example, we might teach others how to save their land, too. Our land, water, and air are precious treasures worth protecting—the jewels of our nation. Ranger Doug expresses that sentiment well. He is a tribute to our nation, and a new hero for me.

JEANNE HEINEMANN Alabaster, AL

I had the opportunity to meet Doug at the Logan Pass Visitor Center last summer while preparing for a week-long backcountry trip. His warm welcome and story of youthful explorations was a highlight of the trip and a memory I will never forget. I consider him one of the gems of the park and a model upon which later generations of park stewards will hopefully draw. He truly represents to me what the "national park idea" was and is all about.

> JOHN GARBARINI Flanders, NJ

When I visited Glacier National Park in early October 1995, I hiked into Avalanche Lake and found Ranger Doug Follett there with a fifth-grade class from the Columbia Falls School District. When the children were eating lunch, Follett was eager to answer my questions about the park. He told me a story about two bird watchers who had seen two grizzly bears about 30 feet away, ending with "those bird watchers are fearless." Follett agreed to take my photo with a foot up on a rock. After I sent a copy of the photo to him, he returned it with a caption in longhand, something like, "This is a counter-clockwise mountain walker." I want to thank Ranger Follett for making my two days in Glacier most memorable.

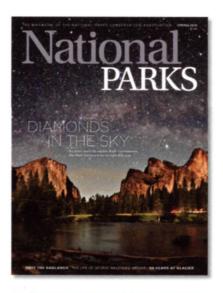
> WILL HOLTON Boston, MA

A HUNT FOR CLUES



NATIONAL PARKS READER BOB KLOSS from Peoria, Arizona, was stationed at Fort Hunt for nearly two years until it closed in 1946. In this picture, he takes a break from his duties to play golf at nearby Fort Belvoir. Park staff interviewed Kloss by phone this spring.

Historians at Fort Hunt Park in Virginia have made some exciting breakthrough since we published "P.O. Box 1142" last winter. Thanks to the dozens of letters we received from readers, park researchers were able to track down and interview two German immigrants who had been imprisoned at Fort Hunt. Both men verified statements that the American soldiers avoided physical abuse during interrogations; the worst threat they received was being revealed to the Russians. The Park Service also tracked down three German scientists who provided first-hand accounts of working with Warner Von Braun. "We feel like we've finally captured all of the puzzle pieces," says Vincent Santucci, an interpretive ranger at the park. "Your readers led us to clues we probably never could have uncovered on our own."



A GLIMPSE OF HEAVEN

I read with great interest your article about the disappearance of the stars around the country ["Fading Fast," Spring]. I am one of those people who couldn't believe the brilliance of the Milky Way as it appeared over the Sand Beach area of Acadia National Park, thinking at first that it may have been some high clouds. Another highlight of that night, thanks to a very knowledgeable ranger, was the reflection of Jupiter's light off the Atlantic Ocean. What a treat to realize that a heavenly body that far away can still brighten our world. At home, near Baltimore, Maryland, even Polaris is not easily visible due to the glow of nearby lights. Keep up the great work in preserving our ability to see the universe we live in.

> ANDY NIILER Bel Air, MD

I want to commend *National Parks* magazine on the great article about the night-sky program in the national parks. The article brought back many fond memories of my days as a seasonal ranger at Bryce Canyon National Park (Utah) from 1974 to 1977. Some of the rangers and I would hold a short astronomy talk after our campfire program for anyone interested in staying. We would point out the constellations and talk about the night sky. The high point was when a NASA satellite came over in a north-south orbit about the time we were finishing our talk. Thanks again for keeping us informed.

> BOB KINSELLA Chatsworth, CA

A RIPPLE EFFECT

"On the Wing" [Spring] doesn't tell quite all of the benefits of the Park Flight Migratory Bird Program. Bandelier National Monument works with the Pajarito Environmental Education Center in Los Alamos, New Mexico, to bring school children to Bandelier to observe their migratory-bird research—from netting, to weighing, and finally, releasing. The Central American biologists also visit our schools to explain the benefits of collecting data on migration. So the ripple effect not only reaches Latin America, but our own school children, too. The look of joy on those children's faces as they hold and release a bird cannot be measured.

Los Alamos, NM

CORRECTIONS:

An article describing the Manhattan Project ["The Big One"] noted that the Trinity atomic bomb was tested in Alamagordo, New Mexico. The bomb was dropped in the Alamogordo Test Range, well outside the city; the site is now part of the White Sands Missile Range. We also regret misspelling Doug Follett's name in the caption on page 4.

Send letters to National Parks Magazine, 1300 19th Street, NW #300, Washington, DC 20036 or e-mail npmag@npca.org. Include your name, city, and state. Published letters may be edited for length and clarity.

UPDATE: GUNS IN PARKS

THIS SUMMER, visitors to dozens of national parks may see something they've never seen before: the gleaming metal cylinder of a loaded firearm. In spite of exhaustive efforts by NPCA members and staff, Congress eventually passed and President Obama signed a law reversing a longstanding regulation prohibiting the carrying of guns in the national parks. NPCA has argued that the Reagan-era policy in place for decades was working guite well, and the new law poses greater risks to poaching and public safety. The law was passed over strong objection from the Coalition of National Park Service Retirees, the Association of National Park Rangers, and the Park Ranger Lodge of the Fraternal Order of Police. In the past, guns had to be unloaded and stowed away when brought into a national park, but now the laws pertaining to the state apply to the national park unit within its boundaries. That means in some national parks, visitors can carry concealed pistols in holsters at their side; in others, they may carry semiautomatic rifles. Ironically, some state parks now have greater limitations on guns than do national parks only a few miles away.

Because of the strong bipartisan vote supporting the legislation in Congress, there are no remaining legal remedies on a national level, though some local groups are hoping to change state laws. Friends of Acadia recently amended Maine's regulations to limit possession to retired law-enforcement and those with permits to carry concealed weapons rather than the more liberal state legislation which permits open carry of firearms in many cases. NPCA's regional offices and government affairs staff will be working closely with our allies to continue monitoring the situation.

THE HIGH ROAD

New grants help ease gridlock in the national parks.



here's nothing like traveling to a national park to escape city traffic, only to find yourself stuck in more traffic—whether it's a long line at the entrance or an overcrowded parking lot. The gridlock affects more than just nerves; it takes a toll on park resources, too, causing air- and noise pollution and stressing roads and bridges.

In 2005, Sen. Paul Sarbanes (D-MD) recognized the problem and rallied Congress to pass the Transit in the Parks program, later named for the senator after he left office. The legislation provides annual grants for public-land managers to boost their alternative transportation systems. "As millions of visitors drive into our national parks each year, too many of them spend hours looking for parking or staring at the bumper of the car in front of them," Sarbanes said. "I believe that we have a clear choice before us: We can turn paradise into a parking lot, or we can invest in alternatives. This program represents very promising alternatives, so that we can enjoy our nation's natural treasures for many generations to come."

This year, almost two dozen national parks will benefit from that grant money. Projects include testing hybrid buses in Denali National Park and Preserve, Alaska; improved bus shelters in Grand Canyon National Park, Arizona; construction of a bike and pedestrian path to Muir Beach in Golden Gate National Recreation Area, California; an integrated, park-wide trafficmanagement system in Yosemite National Park, California; a passenger ferry dock at Fort Pickens in Gulf Island National Seashore, Florida; improvements at 15 bus stops in Acadia National Park, Maine; and an accessible pedestrian walkway in Lowell National Historical Park, Massachusetts.

"These projects are an important step toward our national goals to address climate change and improve the livability of our communities," says Jim Evans with the National Park Service transportation program. Since 2006, the Paul S. Sarbanes Transit in Parks program has provided the Park Service with approximately \$35 million in project grants. Visitors can expect to see improvements in the near future.

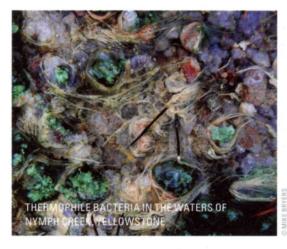
-Amy Leinbach Marquis

GETTING THEIR DUE

National parks to be rewarded when scientific discoveries yield profits

he next time a scientist dips a test tube into a stream in Yellowstone National Park and makes a profitable discovery from it, Yellowstone will benefit too, thanks to a new policy adopted this spring.

The idea of benefits sharing dates back to 1966, when Thomas Brock took a sampling from a thermal pool in Yellowstone that yielded the microbe *Thermus aquaticus*. More than a decade later, scientists extracted an enzyme from that microbe that



revolutionized DNA analysis, aiding criminal investigations and advancing the diagnosis and treatment of genetic diseases. A Swiss pharmaceutical company recognized its potential, bought the patent for the process, and has since made hundreds of millions of dollars from that patent—but Yellowstone never saw a penny.

Since then, the concept of benefits sharing has sparked heated debate in the environmental community. Critics worry that park superintendents will find themselves in a difficult ethical position, torn between protecting park resources and raising money to pad their own budgets. But researchers take only tiny samples—picture a teaspoon of mud or a beaker-full of water. The new policy also states that any money earned would go directly to resource-protection in the park where the research was conducted, and that the process will be transparent to the public.

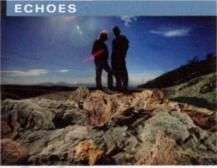
"While parks can benefit financially from research, we don't want to see research dollars serving as a Band-Aid approach to funding issues," says Patricia Dowd, program manager in NPCA's Yellowstone field office. "Congress should fund our national parks adequately and fully."

Besides, says Yellowstone Spokesperson Al Nash—of the hundreds of research projects happening in national parks, only a small percentage are likely to have commercial potential. "The focus is [rarely on] making a profit," he says. "It's all about adding to our understanding of the place, and the planet." —*Amy Leinbach Marquis*

EYE-OPENER



In April, Audrey Peterman and Frank Peterman published LEGACY ON THE LAND: A BLACK COUPLE DISCOVERS OUR NATIONAL INHERITANCE AND WHY EVERY AMERICAN SHOULD CARE. The book details the couple's cross-country tour of our nation's parks and historic sites and reveals some often-overlooked issues regarding race, diversity, conservation, and the outdoors (see related article, page 32). To learn more about their work or purchase the book, visit www.earthwiseproductionsinc.com (\$19.95, 215 pp.).



4D THE PRESS-ENTERPRI

The community, the political beings, the county, the cities of Las Vegas and North Las Vegas have all come together for this—that doesn't often happen in the West.

Lynn Davis, program manager for NPCA's Nevada field office, quoted in the Press-Enterprise on widespread support for the designation of a national monument in Tule Springs (above), just north of the city. Thousands of fossils of mammoths, horses, camels, lions, and bison are found in the area now controlled by the Bureau of Land Management (see story, page 16).

I'd hold up an Etch A Sketch and say the monument is like this drawing. The forces of nature control one knob, the public has the other.

Sean Smith, policy director for NPCA's Northwest regional office, quoted in National Geographic's May issue, regarding the future of Mount St. Helens National Monument, which is now in the care of the Forest Service, but is drawing increasing support as a potential national park unit.

[This plan] would have a dramatic impact on park resources and embolden other energy companies to do something similar in other parks."

Bryan Faehner, NPCA's associate director for park use, quoted in the Daily Record on an energy company's proposal to replace a small power line in Delaware Water Gap with a primary transmission line to include 200-foot tall towers along with new roads and maintenance infrastructure (see story, page 14).



Q&A

CANDID CAMERA

Camera traps in the Glacier ecosystem and Grand Teton National Park are capturing unique images of park wildlife never seen before. Meet Joe Riis, one of a new breed of photographers taking pictures without lifting a finger.

y now, you'd think just about everything in a national park has been photographed. But you'd be wrong. Joe Riis, 25, is one of a new generation of photographers combining wildlife biology with photography to capture images that no one has ever seen before. Riis puts his cameras in places where grizzlies, mountain goats, and wolverines are known to frequent-then he walks away and allows technology to trigger the shutter. One of the youngest members of the International League of Conservation Photographers (ILCP), Riis has photographed Glacier's wildlife in the Flathead River Valley to fend off potential oil and gas operations on the fringe of the national park, and he's captured never-before-seen images of Grand Teton's pronghorn antelope to illustrate

threats to their tenuous migration corridor. As part of that project, he served as a biologist-in-residence at the Murie Center, living in a log cabin and offering free presentations to park visitors for nearly a year. Riis spoke with National Parks Editor in Chief Scott Kirkwood a few weeks ago.

Q: First off, what is a camera trap—how does it work?

A: In simple terms, a camera trap is just a normal camera attached to an infrared beam—when the beam is broken the animal basically takes its own picture. The advantage of a camera trap is that it allows you to [get close enough to] show a big animal and a big landscape, which is almost impossible to do with most wildlife unless they're tame.

Q: Can you explain how the infrared technology works?

A: There's an infrared beam sent between two little plastic boxes, and one of the boxes is connected to the motor-drive terminal of the camera. I can set the camera to take one picture every second for five seconds, or 10 pictures in a second-and-a-half, or whatever I want. I can also adjust the sensitivity so that if there's a blade of grass waving in front of the beam it won't go off, but if an animal walks by, it will.

Q: What new information do camera traps provide?

A: Camera traps are a new tool for field science, because they can show information that wasn't previously possible, because if a researcher is seeing it, then the animal is probably behaving differently because of the human presence. Camera traps also show the world from the animal's perspective. They show what the animal does when humans are not present and influencing them. The data captured by the camera also give researchers exact date and time information, movement patterns, size and structure of herd, and other critical information.

Q: How do you decide where to place your cameras for the best results?

A: The best thing to do is watch an animal go somewhere, put the camera in the same spot, and hope the animal comes back. On the pronghorn-migration project, I was looking for the trails that the pronghorn were using regularly, so I'd watch a group walk along the trail, and put a camera out, then another group would pass by and they'd walk through the camera's field of view. Ungulates like deer, elk, and pronghorn will stay on a trail whenever possible, which makes it a little easier.

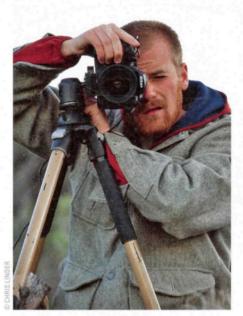
But some species—especially predators—have such huge home ranges, they don't necessarily follow the same path. In the Flathead work last year, I was trying to photograph grizzly bears and wolverines, so I looked for landscape funnels and tried to figure out the easiest place for an animal to walk, because that's usually the path they'll take. I was working up on the Continental Divide, and there were two mountain passes close to each other, which fed into these huge drainages. The animals have to use those passes to move around, so I found an old streambed that was dried up at the time—an easy place for a bear, bighorn sheep or deer to walk—and that's where I put the camera. I ended up getting several deer, some marmots, a grizzly and two cubs, a mountain goat, and a bighorn sheep ram.

Q: What drew you to working with camera traps?

A: I was doing work on the endangered interior least tern in South Dakota, down on the Missouri National Recreational River, and I knew I needed to show the landscape, because the birds live on sand bars. Then with the pronghorn project that I started a couple of years ago, I knew there was no other way to do it-I needed to show people what migration looks like, and [to show the animal up-close] and the landscape as well, you need to use a wideangle lens and you have to be really close to the animal, which means using a camera trap. It takes a long time to do it well because you have to predict where the animals are going to go, and for pronghorn it means you've got to spend a lot of time in the field. But if you put in the time, it pays off. I'm always surprised when I go and check my cameras-I'll leave for a week at a time and when I show up and check the pictures, I can never believe all the things that were happening when I was gone.

Q: Are there any challenges posed by severe weather, battery life, or other issues?

A: Batteries aren't really an issue with the newer digital cameras, but I sometimes have to worry about the batteries on the flash, if I'm using one. And my cameras are usually in places where people aren't necessarily walking by or seeing them, so I'm not too worried about theft. One of my cameras was practically eaten by a black bear, which is a bummer, but after 15 months of field work, losing one camera is pretty good. More than anything I worry



JOE RIIS, on location in the Upper Green River Basin, western Wyoming.

about rain—the camera will die if it gets completely drenched in a downpour. I usually put a plastic Ziploc bag on the body and lock it down with rubber bands and then put a camouflage cover over it; I'd use a specialized sealed container, but those are custom-made pieces that would cost \$4,000-5,000 for a full camera-trap setup, and that's a fortune that I just don't have right now.

Q: It seems like we're suddenly seeing more images from camera traps. Is the technology relatively new?

A: Photographers have been using them for a long time, but they've become more popular in recent years. In the 1990s, Nick Nichols started using them in his work for *National Geographic* and now with digital technology it's so much easier, because you can put an 8-gigabyte memory card in your camera and take hundreds of images, rather than getting just 36 exposures from a single roll of film. You can take test images in the field to see what the lighting conditions are like immediately, and the batteries last a long time, but the main difference is the ability to take so many pictures.

Q: Like many wildlife photographers, you have a background in biology—how does that help?

A: I went to the University of Wyoming and got degrees in wildlife biology and environment and natural resources, and I worked a little bit as a biologist in the summers, then when I graduated in 2008, I started working full-time as a photographer. When I was younger, I worked as a biology tech conducting wildlife population surveys in South Dakota, and I grew up hunting, and this work is obviously very similar to hunting—but rather than trying to get 50 yards away and shoot the animals, I'm trying to get two or three yards away and get a picture. And all of that experience definitely helps me out.

Q: Talk about the details of the projects you're working on.

A: One of my biggest projects is the Grand Teton pronghorn migration, the movement of 300 to 400 pronghorn that spend every summer in the park, then migrate to the east and then south into the Upper Green River Basin every fall, because the snow gets too deep in Grand Teton to stay the winter, making it impossible for them to eat sagebrush and other grasses. It's the second-longest mammal migration in the Western Hemisphere, after the caribou in Alaska and Canada. It's a project I started right when I graduated from school, because it was close to home and I thought I could help preserve the migration corridor, and there were no photographs of it, because no one had put the time in.

You can't just show up and photograph a migration—it happens really quickly, but it's all unfolding over the course of a year, so there's a lot of hanging out, waiting, not seeing anything, then all of a sudden for half an hour there is this pulse of life moving over the landscape, and I've spent my time photographing those small little moments.

The entire migration route is about 150 miles. The northern end is the park and a protected corridor, but the southern half is a mixture of private and federal land, which includes some ranches and all kinds of fencing, housing developments,



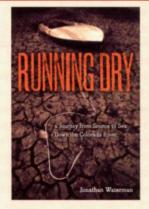
RIIS CAPTURED THIS IMAGE of a pronghorn doe struggling with a fence, then untangled the wires, so the animal could continue on its way. But not all pronghorn are so lucky.

roads with traffic... but the main thing is the fencing. Pronghorn don't usually go over fences, they go under them, and they need about 16 inches to slide underneath. People who care about the migration are coming together to retrofit their fences [remove the barbed wire, raise the clearance], and make them wildlife friendly, which is great. (For more on NPCA's similar work around Yellowstone, see page 22.)

Q: What's next for you?

A: My next big personal project is focused on one of the mallard duck migrations in North America, which is pretty amazing. There are several migration routes, but

EYE-OPENER



The journey begins atop a snowy Longs Peak in Rocky Mountain National Park, where the Colorado River is little more than a meandering stream marked by a trailhead. Jon Waterman, a filmmaker and author, is setting out on a 1,450-mile adventure by foot and boat in an expedition reminiscent of John Wesley Powell's in 1869. His goal? To figure out why the once-mighty river is no longer reaching the sea; in most years, the Colorado trickles to a stop 100 miles short of its final destination in Baja California, Mexico. Waterman's resulting book, **RUNNING DRY: A JOURNEY FROM SOURCE TO SEA DOWN THE COLORADO RIVER**, not only documents his travels; it also reveals the unsustainable demands we've placed on the Colorado—

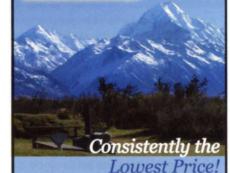
from irrigating 3.5 million acres of farmland to keeping lawns green in Los Angeles. Along the way, Waterman reaches out to ranchers and farmers, boatmen and rangers, scientists and politicians, vacationers and activists, whose stories illustrate the desperate need to strike a balance between nature and human needs. (National Geographic Books, \$26, 305 pp.) I'll be staying in the Central Flyway, up in Northwest Territories in Canada at their summering grounds, then down in the Gulf of Mexico for their wintering grounds, in Louisiana and Texas. There are some key stopover points in South Dakota and North Dakota in the prairie pothole regions, where millions of ducks just drop out of the sky to eat and recuperate for a few days, then leave again. So I'll be at home in the Dakotas starting that project, which will probably take two or three years and include a lot of camera-trap work. It's something that's never been done before, capturing close-up images of ducks landing on water, so I'm pretty excited to get started on it.

ON THE WEB

Watch a video of Riis setting up a camera-trap near Glacier at www.npca. org/magazine.and learn more about Riis and his pronghorn-migration project at www.pronghornpassage.com or www.joeriis.com.

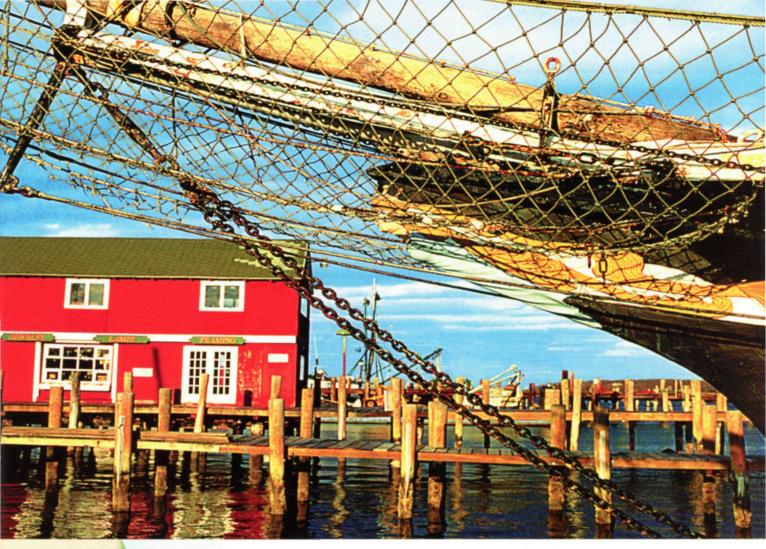


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CROSSING WIRES

Energy companies plan to erect 20-story power lines that would tower over the Delaware Water Gap.

n the 1930s, several cities along the Delaware River proposed the construction of the largest dam east of the Mississippi, at Tocks Island, upstream of the Delaware Water Gap. The dam would generate electricity for the growing cities of Philadelphia and New York, and the 37-mile long lake would siphon water to their residents as well. The project lay dormant for years, but a 1955 flood in the region renewed interest in the proposal, and led the government to start buying up land and seizing homeowners' property in preparation for the dam's construction. In 1960, the Army Corp of Engineers finalized the plans, and Congress approved the dam's construction in 1962, after record drought hit the Delaware Valley. But over time, ardent protests from locals combined with funding challenges exacerbated by the Vietnam War led the federal government to table the project. For decades, locals continued to fight for an official decision scrapping the proposal. Finally, in September 1965, Congress authorized the creation of the Delaware Water Gap National Recreation Area, marking the final step in what many consider an early victory for the environmental movement. The Tocks Island Dam was officially deauthorized in 1992.

Now, 80 years after the first threat posed to the rolling hills and meandering waters of the Delaware River, energy needs are once again threatening to leave a permanent scar on the area.

The Delaware Water Gap could be the most popular national park you've never heard of. Playing host to more than 5 million people each year, it's the eighth most visited unit of the National Park System. Its mountain ridges and river valley contain streams, waterfalls, diverse plants and wildlife, and traces of past cultures, including significant Native American artifacts and sites. Recreation opportunities abound: Forty miles of the middle Delaware River offer fishing, boating, and swimming and access to hiking, biking,

picnicking, hunting, and auto touring.

But views throughout much of the park unit could change substantially if a power company gets its way. Two energy companies-Public Service Electric & Gas (PSE&G) and PPL Electric Utilities-are proposing a serious upgrade to a smaller power line that predates the park and winds through its southern half, crossing the river near the current visitor center. Eighty-foot towers that only occasionally rise above the canopy of maple, ash, and dogwood could soon be replaced by 200-foot towers that would dwarf them. A narrow right-of-way would expand to 300 feet to accommodate the two 500-kilovolt lines, which might require special lighting or bright orange balls for visibility. Asphalt roads would be constructed to provide constant access to what would become a main artery for coal- and nuclear power delivered to New York.

"This is the longest undammed river in the Eastern United States, and it offers a relatively rural and quiet pastoral experience for people floating down it, but these impacts would be dramatic," says Delaware Water Gap Superintendent John Donahue. "You could potentially see the towers from all kinds of places in the park. In a cumulative sense, it's not just this single project but everybody who says they 'need' to have a bridge or a road or a gas line through the park. People talk about death by a thousand cuts; this would be more of a gaping wound."

Pam Underhill, superintendent of the Appalachian Trail, which traces a line through the recreation area, echoes those thoughts: "Unfortunately, the Appalachian Trail is in the way of every project that aims to go east to west-this is one of five transmission lines on deck right now-so the potential cumulative impact of these projects threatens to undo all the work that we've done to provide some sort of wilderness experience for people in this part of the country," she says. "We recognize we can't be the eastern United States' version of the Great Wall of China; as society seeks to balance its needs, there are probably going to be several new projects that cross the trail. We just want to have a

say in where and how these lines cross the trail, to minimize the impact and preserve the experience on the 2,100 miles stretching from Maine to Georgia."

For obvious reasons, the power companies' preferred alternative is to simply traverse the corridor already established in the park-to cover the shortest distance between two points (see map), and to remove the need to purchase privately owned land or claim eminent domain. Some have suggested burying the power lines or using new technology that would increase the carrying capacity of transmission wires on the current towers, but those options are more expensive. Of course, none of this is the park's problem. Ultimately, the Park Service has the authority to grant the permits that would allow the utility to expand the right of way and begin construction along the route. Recognizing that the decision is not entirely up to the park itself, PSE&G and PPL are already lobbying officials in Washington, D.C., to bring pressure from the top down.

In three public meetings held in the region, nearly every participant opposed the transmission lines, and park staff received more than 6,500 supportive comments from around the nation. (NPCA members can sign up to receive alerts and offer their thoughts in the ongoing process by visiting www.npca.org/take_action.)

"Floating the Delaware River through this region is an incredible experience," says Bryan Faehner, NPCA's associate director for park use. "It's a beautiful river valley with bald eagles, black bears, and other wildlife. To be paddling the river and see these enormous power lines in the distance, then float underneath them not only affects the scenery and the visual experience, but you would actually hear the buzz and crackling of the power lines themselves. The Park Service's 2006 Management Policies call on park staff not only to protect the parks from unacceptable impacts but to make things better, so this project is a worst-case scenario that will embolden other energy companies across the country. Whatever unfolds at the Delaware Water Gap could have national implications that could be disastrous, and might

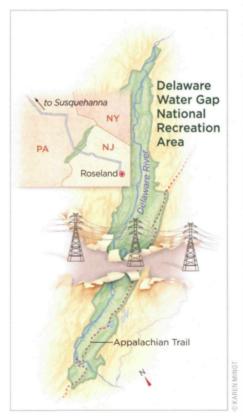
put a lot of park land at threat."

In recent years, park supporters helped nix proposals for power lines through the Upper Delaware Scenic and Recreational River and Minidoka National Historic Site, and around Joshua Tree, but others are sure to follow; several Civil War sites in the East already have power lines on adjacent land, making it nearly impossible to imagine the landscape 150 years ago.

"Every year, more than 5 million people come here to refresh their spirits in this chunk of 70,000 acres of forest and 40 miles of river—a place where they can go to enjoy themselves, restore their spirits, and remember what it means to be a creature of the earth," says Donahue. "When I think about the potential threat we're dealing with, I remember the words of John Muir, who said, 'These preserves are not just fountains of timber and water, but fountains of inspiration for mankind.' "

-Scott Kirkwood

POWERLINES would connect coal- and nuclear energy in Susquehanna, Pennsylvania, to residents in New York and New Jersey.



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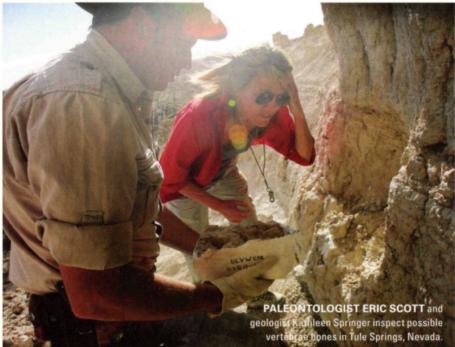
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BURIED TREASURES

Just north of Las Vegas, a vast stretch of land entombs the richest Ice Age fossil beds in the Southwest. Could this become America's next national monument?

efore giant casinos dominated the Las Vegas landscape, there were giant animals: ground sloths the size of Volkswagen Beetles, Columbian mammoths with tusks up to seven feet long, American lions a third larger than today's African lions. It was the Pleistocene era in what is now the southern tip of Nevadawhen, between 2.5 million to 10,000 years ago, ice ages waxed and waned, wildlife thrived, and the place we know as a scorched, over-developed desert actually teemed with meadows, marshes, and burbling brooks.

It wasn't until the 1930s that people began diverting all that water to meet the needs of a rapidly sprawling city and the land began to transform. But something special lay buried beneath: Just behind Las Vegas' northern suburbs, under roughly 25,000 acres of Bureau of Land Management (BLM) property known as the Upper

Las Vegas Wash, or Tule Springs, are layers of sediment that span a 200,000-year period-and a shocking abundance of Ice Age fossils to match. It's the only patch of land left in the Southwest, and perhaps the entire United States, that tells such a complete story of the Pleistocene.

For decades, new housing developments kept pushing suburbs outward. And in 1998, the Southern Nevada Land Management Act was signed into law, allowing the BLM to sell public land within a specific boundary around Las Vegas. Money from those sales goes back into Southern Nevada to fund things like parks, trails, conservation initiatives, and even environmentally sensitive land acquisitions. Ironically, this fossil-rich area fell within those boundaries, and in 2003, the BLM began the process of selling the land to private developers.

That is, until the locals caught wind.

Jill DeStefano, a retiree who moved from Florida to Northern Las Vegas in 2006, was immediately drawn to the beautiful desert land behind her neighborhood, but never thought twice about trying to protect it. "I figured someone would build all over those hills someday." she says, "because in Southern California where I grew up, that's just what people did."

But before the BLM could sell off any land, the agency had to do two things: complete an environmental study and offer a public comment period. So in August 2006, the BLM held a public meeting. That's when DeStefano learned of the precious fossils buried in her backyard, and decided they had to be protected. "How can you even think of covering up something so valuable?" she says. "It's like a mini-Grand Canyon out there. You can't just fill it in."

She began speaking up in community meetings, urging her neighbors to oppose the development. But not everyone was so optimistic; one man went as far as to tell her that it was a hopeless cause and she should just "go home and play bridge." But DeStefano pushed on, creating the nonprofit Protectors of Tule Springs-a small but feisty group of women who humbly describe themselves as "little old ladies in white tennis shoes" and brand themselves with khaki hats and safari shirts. They met with local elected officials, convinced 10,000 residents to sign a petition against the land sale, and persuaded nonprofit groups like NPCA that this land was worth protecting. Armed with a report from a well-regarded National Park Service paleontologist, NPCA and the Protectors of Tule Springs invited mayors, city council members, county commissioners, and members of Congress on private tours of the site, fearlessly driving up and down steep desert terrain to give lawmakers an appreciation of the land.

To their astonishment, almost everyone they recruited signed on. Las Vegas, North Las Vegas, Clark County, and the Southern Nevada Paiute tribe (whose land connects to Tule Springs) all drafted resolutions asking Congress to designate the area a national monument. And it's a good thing, because Tule Springs needs all the (cont'd on page 18)

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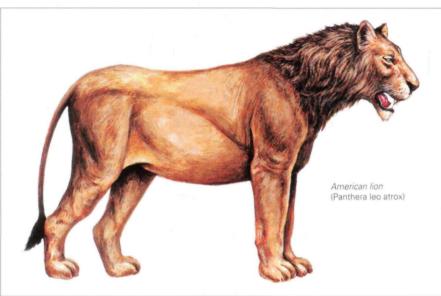
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friends it can get. Without adequate staffing to patrol land, like the fossil-rich area, BLM agents can't enforce laws meant to protect the land—like prohibitions against all-terrain vehicles (ATVs). "They've spent a fortune on fencing and other efforts to keep ATVs out," DeStefano says. "But one mammoth site had ATV tracks within ten feet of it. So who knows what these vehicles have run over or the destruction they've caused?"

The solution? Hand it over to the Park Service. Turn it into a national monument, so the land achieves higher conservation status. Open it up to the public as a place to hike, learn, and escape city life. Create a visitors center and museum where park rangers can paint stories of the Pleistocene era through fossils dug up and displayed on site. Allow visitors the chance to see researchers in action at active excavation sites.

This is, after all, where radio-carbon technology was born—an advanced method of dating fossils and artifacts. That breakthrough came in the 1960s, when the National Science Foundation sent an army of paleontologists, archaeologists, and geologists to Tule Springs to answer a single question: Were our ancestors cruising around with Ice Age mammals? Despite massive excavations, chronicled by National Geographic, scientists were never able to prove any interactions, and the Upper Las Vegas Wash simply faded into the background. "They packed up their tents, literally and figuratively," says Lynn Davis, program manager for NPCA's Nevada field office. "The area was all but forgotten."

Until 2003, when the BLM directed a team of paleontologists and geologists from California's San Bernardino County Museum to aid in their environmental study. In just six months, the team discovered 500 surface-level fossil sites-likely just a fraction of the wealth of fossils underneath-that revealed everything from camels to cottonmouth snakes, sparking questions much more complex than whether or not the land should be developed: How did the animals change over time? How many were there? Were those populations starting to diminish before the mass extinctions, or did it happen suddenly? A popular older theory proposes that an asteroid or some other explosion led to many of the species' demise, but Kathleen Springer, a geologist and senior curator leading the team, is skeptical, and eager to keep digging for answers. And that means looking beyond the obvious.

"Anybody can trip over a tusk," she says. "But we'll actually collect a bunch of dirt, bring it back to the museum, and wash it through little screens until we end up with stuff that looks like kitty litter, which we pick through for microfossils. That's how we find things like rodents and repAMERICA'S ICE-AGE LIONS measured a third larger than today's African lions.

tiles and amphibians and birds, and how we've expanded our knowledge of what's out there-because forty-five years ago, they weren't looking for this stuff."

It's the kind of knowledge that could shed light on microenvironments today, especially those threatened by global warming. There are clues, too, in the most basic laws of nature. "Gravity worked the same way two million years ago," Springer says. "Rain fell from the sky, just as it does today. We can use rocks to learn the story of streams in the past, and then look at modern streams to see how they flood and flow. We can think about how these Ice Age animals suddenly went extinct, and what that tells us about how wildlife might react to global warming today. You can start to make inferences from modern biology and the Pleistocene animals that have been long dead."

To aid their research, which is currently being funded by a five-year grant from the BLM, Springer's team created the Paleontological Site Stewardship Program, where citizens can shadow scientists in the field and eventually become stewards of the land. The program includes training, fossil hunting, and access to a paleontology hotline to report new discoveries. Achieving the status of a national park unit, Springer says, could help support these collaborative efforts.

Thankfully, the national monument idea has gained support from an impressive mix of allies: local residents, state legislators, national lawmakers, nonprofit groups, and even the Air Force, which controls the air space above Tule Springs. Legislation is expected to be introduced this summer.

"Las Vegas is set in this incredibly beautiful valley," Springer says, "but the city has sprawled in all directions, paving over wetlands and marshes from the nottoo-distant past and replacing them with a concrete jungle. This is the last patch of land that entombs this important fauna. It's all that's left. And that's why we have to preserve it."

-Amy Leinbach Marquis

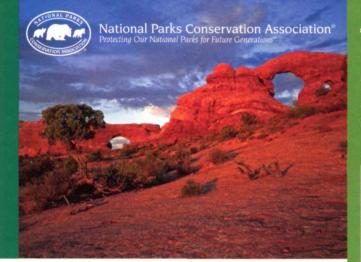
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BACK TO SCHOOL

The Seasonal Law Enforcement Training Program teaches tomorrow's rangers how to protect our national treasures.

arry Yount, a Civil War veteran, was America's first park ranger. In 1880, "Rocky Mountain Harry" spent 14 months creeping through the flowering meadows and lush valleys of Yellowstone with his single-shot rifle and black powder cartridges, to prevent the poaching of elk and bison. Patrolling a park with over 2 million acres, home to the largest collection of mammals in the lower 48 states, Yount guickly realized his limitations and in his historic Report of a Gamekeeper, championed the idea of a seasonal ranger force. Following Yount's 14-month tenure, the U.S. Cavalry added its muscle, and finally, just before the creation of the National Park Service in 1916, Yount's dream of a stand-

by Kevin Grange

alone ranger force was realized.

Stephen T. Mather, first director of the Park Service, once said, "If a trail is to be blazed, send a ranger. If an animal is floundering in the snow, send a ranger. If a bear is in a hotel, send a ranger. If a fire threatens a forest, send a ranger and, if someone needs to be saved, send a ranger"-and that was just the short list of duties. Today's law-enforcement rangers are expected to assist with everything from traffic stops, search and rescue, emergency medical services, incident command, crime-scene management, property protection, drug enforcement, and border patrol. The idea of so many hats tucked beneath the threeinch brim of a ranger's Stetson might be SEASONAL LAW-ENFORCEMENT RANGERS receive months of rigorous training before going to work protecting our national parks.

overwhelming, but the Seasonal Law Enforcement Training Program (SLETP) provides the comprehensive instruction and unique skills that instill confidence for the adventure ahead. If you see law-enforcement rangers in your park travels this summer, there's a good chance they graduated from one of the training schools scattered around the country.

The programs are like law schools, police academies, and boy-scout camps wrapped into one 334-hour course. During the courses, "ranger trainees" run through a curriculum of 35 subjects that shape them into a combination of Indiana Jones and Sherlock Holmes: officer liability, report writing, constitutional law, courtroom evidence, criminal law, searchand-seizure protocols, high-speed pursuit, arrest control, and firearms training. When the bumps and bruises of these practical exercises become too much, some schools take "field trips" to nearby parks to meet with park superintendents, active law enforcement and interpretive rangers, and even sit in on fire-management meetings.

"Working for the National Park Service isn't a job—it's a way of life," says Deryl Stone, chief academy ranger at Colorado Northwestern Community College, who spent 27 years working for the Park Service. "We don't teach students to be cops—we teach them to be ambassadors, educators, and protectors."

The first training program was held at California's Santa Rosa Junior College in 1977, but has since expanded to eight schools across the country. The curriculum is outlined by the Federal Law Enforcement Training Center in Georgia, but the formats vary from school to school. Skagit Valley College in Washington State and Hocking College in Pennsylvania blend the SLETP with their standard police-officer training programs. The University of Massachusetts Amherst offers weekend classes. Slippery Rock University in Pennsylvania spreads its program over two semesters. Community colleges in Arizona, California, Colorado, and North Carolina offer the course as an academy, spread out over 10-13 weeks.

According to Kathy Dodd, program director at Northern Arizona University's program, rangers from the Park Service, Bureau of Land Management and Forest Service often serve as guest instructors. "Not only does this ensure students are learning from working professionals who are experts in their field," says Dodd, also a summer ranger at Glacier, "but it also gives them a good list of contacts to help secure future employment."

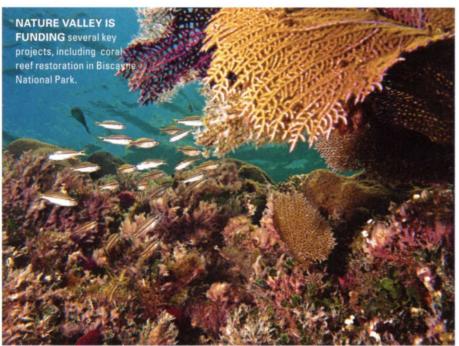
Securing your first position as a lawenforcement ranger is a little different from most professions in that you can't get hired until you've had the training. Aspiring rangers agree to pay between \$2,000 to \$5,200 for their education and accommodations with no guarantee of future employment. But once they graduate from SLETP and receive a Type II Law Enforcement Commission—allowing them to carry firearms, make arrests, investigate nonfelony crimes and assist in the execution of warrants while on duty—they can apply for work with the National Park Service, Bureau of Land Management, Forest Service, U.S. Fish and Game Department, and some state and county parks. With more than 2,200 visitor-protection rangers working for the National Park Service alone nearly 95 percent of whom graduated from SLETP—there's a good chance the gown of a new graduate will quickly be replaced with a Park Service uniform.

The students' backgrounds vary as much as the parks they hope to protect. Last summer, Chief Stone's class in Colorado graduated men and women of varying ethnicities in their twenties, thirties and forties, whose resumes included everything from bachelors and masters degrees to multiple tours of duty in Iraq and Afghanistan. Following his experience as a Marine in Iraq, Jaime Alvarez chose to enroll in SLETP because he found being in nature helped him heal after war, and he believed the work would allow him to use the team skills he learned in the Marines. Keri Nelson, a recent college graduate, sought a career that involved the outdoors, travel, and her degree in geology. C.J. Malcolm, a paramedic, believes work as a ranger is the ideal way to combine his interests in leadership, search-and-rescue, and emergency medicine.

Despite the joys of patrolling scenic forests, lakeshores, and national monuments, park enforcement is not without its dangers. The solitary nature of the work and the remoteness of the patrols make lawenforcement rangers the most assaulted of federal officers. "Protecting our parks can be hard," confesses Heidi Schacht, a Northern Arizona graduate who worked at Grand Teton last summer, "but park rangers are a family and we look out for each other. Knowing that a fellow ranger has vour back and is on the way to help youeven before you ask for it-is the biggest adrenaline rush and best feeling in the world."

Kevin Grange is a freelance writer living in Park City, Utah; this is his second article for National Parks magazine.





IT'S ONLY NATURAL

Nature Valley teams up with NPCA to restore three parks.

he word "granola" once simply described a snack of rolled oats, nuts, honey, and rice with the occasional raisin or chocolate chip thrown in to sweeten the pot. But in recent years it's become an adjective to describe people who are a little obsessed with the great outdoors. So it should come as no surprise that a company that invented the granola bar would invest hundreds of thousands of dollars to help preserve our national parks.

In December, Nature Valley announced it would fund several key programs unfolding in national parks across the country, with the guidance and support of NPCA's regional offices. This year, the division operated by General Mills will donate at least \$250,000 to NPCA-10 cents for every specially marked granola bar wrapper sent to Nature Valley, one dollar for tickets sold to Kenny Chesney's concert film via Fandango, and thousands of dollars generated by Facebook outreach. All told, the contribution could grow to \$500,000.

"Because we have the word 'nature' in our name and we always feature wideopen vistas in our advertising, people tend to associate our brand with national parks, so it just made a lot of sense to partner with NPCA," says Doug Martin, a spokesperson for Nature Valley. "In looking at specific projects, we wanted to pursue work that was integral to the parks themselves—the wildlife in Yellowstone, the impact of invasive species in Grand Canyon, and the coral reefs in Biscayne National Park. Our goal with this work is to set a foundation with NPCA and then build a long-term relationship that will remind people what Nature Valley stands for." Read on to learn more about the specific projects...

Grand Canyon

For years, a thirsty plant called tamarisk (or salt cedar) has moved into streams and rivers throughout the Southwest and squeezed out native plants, and the Grand Canyon has been hit hard. The park has worked hard to remove the plant, but one treatment is rarely enough, so the new funding will help the park monitor key areas and remove more plants. In other areas, native plants like cliffrose, sage, and prickly pear cactus, which have suffered setbacks, will see a much-needed boost, as volunteers collect seed from healthy populations in the park, and deliver them to a nursery on the South Rim where they can be propagated until they're ready to be planted at new sites.

"One of the bigger projects entailed moving a parking lot closer to the visitor center and planting native species in the previous spot near Mather Point," says Kevin Dahl, program manager in NPCA's Arizona field office. Normally the park would spend thousands of dollars to hire a landscaping company to do the work, but in this case volunteers are getting it done. Dahl was involved in the work himself, where he overheard a volunteer say, "One day, I'm going to be able to come here with friends and family and say, 'See that tree— I planted that myself.""

The program also entails the monitoring and restoration of endangered species like the sentry milk-vetch, which has been seriously affected by development on the South Rim. Funds from Nature Valley will allow the Grand Canyon Association to fund a full-time park employee and a volunteer coordinator from the Student Conservation Association (SCA), and provide food, housing, and transportation costs through the summer and early fall.

Biscayne

On the other side of the country, the partnership will help fund another species in trouble—coral reefs in Biscayne National Park, which are suffering the effects of pollution, overfishing, boat groundings, climate change, and diseases that biologist don't fully understand.

"Biscayne's coral reefs are a poster child for so many of these problems," says Jason Bennis, marine program manager for NPCA's SunCoast regional office. "There is no silver bullet, but the park has come up with an innovative program that allows volunteers and park staff to collect broken fragments of coral after a boat runs aground, and nurse them back to health so they can eventually be returned to the reef." Given the glacial pace that coral grows, the program isn't anything close to a quick fix, but the work is helping scientists at the University of Miami and other research institutions learn more about the species without removing healthy coral in the Caribbean.

Nature Valley's funding is helping NPCA and the South Florida National Parks Trust fund the work of a park coordinator and an intern from SCA. The nursery also places a heavy emphasis on education: Divers can produce live underwater audio- and video feeds that allow them to communicate with classrooms and answer students' questions immediately.

Yellowstone

In Montana, Nature Valley's funding is helping NPCA restore an ancient migration corridor for pronghorn antelope, literally being fenced in by development. "Each year, pronghorn attempt to migrate north of Yellowstone to escape the heavy snows and gain access to grasses, but over the years their migration route has been impacted by development on private and public land, and much of that is related to fencing," says Patricia Dowd, program manager in NPCA's Yellowstone field office. "Pronghorn evolved to become one of the fastest land animals on the Earthsecond only to cheetahs-but they never developed much of an ability to jump fences; ordinarily they'll crawl underneath them. So barbed-wire fencing and buckrail fencing pose problems-pronghorn often get tangled up in the fencing and can't escape."

With the help of Nature Valley, Dowd brought on a one-year Yellowstone wildlife fellow who's working with landowners, land managers, NPCA members, and community partners to remove fencing, raise the clearance so that pronghorn can go under fences and elk and deer can go over them, and replace barbed wire with smooth wire (at a cost of roughly \$3,000 per mile). Just as important, the work itself is helping weave a web of cooperation among the land managers, a nonprofit, and private landowners, which should help wildlife conservation efforts in the region for decades to come.

Learn more at www.preservetheparks. com. -Scott Kirkwood





A SNAKE

Burmese pythons are putting a squeeze on the Everglades.

here's an invasive predator lurking in Everglades National Park, and it has an insatiable appetite for almost every wild thing in the ecosystem: birds, rodents, bobcats, deer—even the iconic American alligator. An exotic pet-gonewild, the Burmese python may be responsible for altering Florida's best places in big ways. And the National Park Service isn't quite sure what to do about it.

The first offenders slithered quietly into the Everglades in the 1990s, and it's no wonder why: Each year, Miami receives 12,000 shipments of wildlife to be sold as exotic pets, Burmese pythons among them. But few pet owners are equipped to handle a python's rapid growth spurt— 20-inch babies can grow up to 12 feet and weigh almost 200 pounds by age two—so many people release the snakes into the wild.

Other snakes may have been freed in 1992 by Hurricane Andrew, which demolished a snake importer's warehouse; the Everglades offer all the comforts of the species' Asian homes: a warm climate, thick vegetation for cover, trees for juveniles to climb, and waterways for quick travel. So they began spreading out into the mangroves, freshwater wetlands, and wooded uplands that make up the park's 1.5 million acres. With few predators and a smorgasbord of prey, the Everglades quickly turned into a python's paradise.

Then they started reproducing.

The park responded by setting up a python hotline, encouraging citizens to call in and report sightings. They also allow "authorized agents" to capture and deliver live pythons to park biologists. By euthanizing a snake and performing a necropsy, biologists can determine what they're eating, and in turn, what kinds of park resources they're affecting; they can also gauge general health and reproductive capability. By keeping them alive, researchers can test the effectiveness of traps, or even embed a transmitter and release them back into the wild, then track them from airplanes to get a sense of where they spend most of their time and how quickly they travel.

"We need to get as much information as we can about how well they're doing and what kind of impact they're having, so

BURMESE PYTHONS THREATEN

the health of the Everglades ecosystem.

we can better understand if there are ways to control their numbers or mitigate their impacts," says Skip snow, a wildlife biologist with Everglades National Park.

While there's no set blueprint for how to eradicate the species, every little bit helps: In the last ten years, the park has documented 1,300 Burmese pythons in and around the park that were captured, run over by cars and farm machinery, eaten by alligators, or suffered other fates. The unusually cold Florida winter killed a significant number of snakes as well, including nine of the 10 individuals that the park was tracking from airplanes.

But even if the park were to remove every wild, invasive python tomorrow, the future of the Everglades would still be threatened without systems in place to prevent such invasions from happening again. So the Florida Fish and Wildlife Conservation Commission created a program called Non-Native Amnesty Day, an event that gives overwhelmed pet owners a chance to turn in unwanted exotic pets to certified adopters better equipped to care for them. And last February, Sen. Bill Nelson (D-FL) proposed new legislation that would make it illegal to import nine species of constrictor snakes into the United States, or even transfer the animals across state lines; at the time this issue went to print, the comment period had been extended to mid-June.

"It's not that we don't like big snakes," Snow says. "I wouldn't be a wildlife biologist for the National Park Service if I didn't appreciate the animals' ability to make a living here. But large, exotic constrictors are not a piece of the Everglades National Park puzzle that we're trying to preserve for the public. So we not only have to figure out how to address the problem now we have to make sure it doesn't happen again. And that's what dealing with invasive plants and animals is all about."

Prevention, after all, is much less costly than cleaning up a mess that's already been made. Everglades National Park spends about \$1 million annually on exotic-plant management, which includes efforts to eradicate Brazilian peppers, Australian pine trees, and the Old World Climbing Fern. To battle invasive wildlife species like Nile monitor lizards, Cuban tree frogs, sacred ibis, and numerous species of exotic fish and even other species of python, the park needs hundreds of thousands of dollars more. "We're clearly concerned about the Burmese python invasion," says David Hallac, Everglades' chief of biological resources, "but it's really just a reminder of all the other exotic species we have. The problem is much bigger than the python alone."

Some claim that Florida will never be able to fully eradicate its Burmese python population because nobody knows how. But that doesn't mean there aren't lessons to be learned. "The take-home message here is that we don't want this to happen again," Hallac says. "When non-natives become established in a national park, we're no longer able to interpret the native ecosystem. We need to learn from our mistakes."

NATIONAL PARK

-Amy Leinbach Marquis

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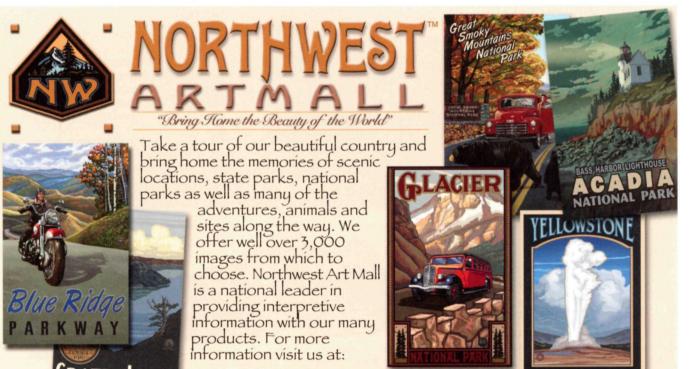
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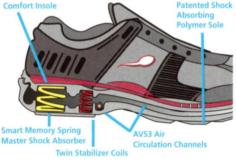
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Ancient Melodies

Can national parks unlock the mysteries of prehistoric musicians?

hey sat on museum shelves for years—skinny flutes made of bone and wood, dangling hoof tinklers, conch shells fashioned into trumpets—with little more than short captions to tell their stories. They're the Southwest's earliest musical instruments, hand-crafted by ancient Puebloan people more than 1,000 years ago. And they revealed very little about their makers.

Until five years ago, when a PhD student

from Columbia University in New York decided to focus her dissertation on two loves: music and anthropology.

"It's easy to view prehistoric cultures as simplistic or not equal to us in intelligence," says Emily Brown, now an archaeologist in New Mexico. "But music helps modern people connect to people of the past in ways that stone tools or fallen-down buildings can't do. There's no human group that we know of that doesn't use music in some form—it's a universally human thing."

Brown started with what had already been dug up: musical instruments excavated from 17 national parks in the southwest, preserved in museums in New Mexico and the East. But the instruments told only half the story. It would take Brown more time to analyze kiva murals and rock art that illustrate what music meant to their players.

Soon, she was catching intimate glimpses of ancient Puebloan times. She learned that Hopi and Zuni used conch shell trumpets to manifest the voice of the plumed serpent, a deity who lives underground and caues the earth to quake and volcanoes to erupt. Hopi associated flutes with summer, flowers, and birds; Zuni associated flutes with warfare. A whistle made from bear bone was used in a spiritual combat against witches who caused disease. Rasps, which make a sound like croaking frogs, were linked to healing and rain.

Most importantly, Brown revealed that music wasn't just a form of entertainment to

these people; it was their way of finding balance in the natural world.

"Since the Renaissance period, music has essentially become a spectator sport," says Cyresa Bloom, an interpretive ranger at Aztec Ruins National Monument in New Mexico. "We sit down, fold our hands, listen, and clap politely. But to ancient Puebloans, it was integral to their daily life and ceremony. It was like an extension of their language."

In an attempt to recreate that language, Brown crafted ancient flute replicas from turkey bones; other archaeologists even played the instruments in ruins to test acoustics. Still, it's impossible to really know what the music sounded like. What notes did the people play, and why? How did they learn the music? Early Spanish settlers offered some clues through written accounts—one journal entry describes a welcoming ceremony that included hand-clapping and many flutists. But in their haste to spread Catholicism, the Spaniards imposed their own traditions on the region, and much of the original

Different:ru

Puebloan culture was lost.

Lost along with it were clues to some of music history's most baffling questions. Take drums, for example: Anyone who's witnessed an American Indian ceremony in the Southwest knows that drums play a significant role, but Brown's research didn't produce any evidence of drums. They don't even show up in kiva murals, which illustrate even the tiniest musical details, like shell tinklers tied to ceremonial sashes.

"I find it very mysterious," says Gary Brown (no relation), an archaeologist at Aztec Ruins. "Without the rhythm of the drums creating that distinctive sound, ceremonies would have provided a completely different sensory environment."

Perhaps archaeologists just aren't recognizing them—especially if they were made from perishable materials like baskets with hides tied over the top. Or, as Emily Brown suggests, maybe modern drums evolved from the hide shields carried by plains groups in late prehistory, or traveled north with Mexican Indians who accompanied Spanish explorers.

"The human body is a musical instrument too," she says. "So all the singing—the work songs, the storytelling, the lullabies you can't dig them up, but you can't dismiss the possibility that they were there."

That hasn't stopped staff at Aztec Ruins from incorporating what they do know into the park's story. Ranger Bloom's daughter, a musician and seasonal ranger in the park, is planning to play replicas of ancient instruments this summer, inviting visitors to step into an acoustic world among the ruins.

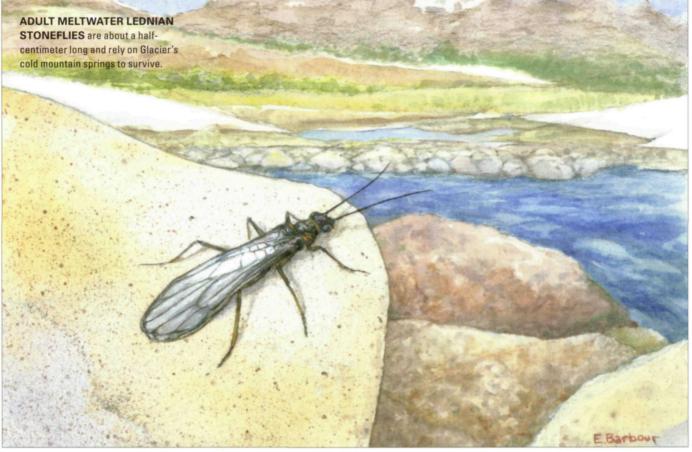
"Musical instruments help give life to these ancient sites," says Gary Brown. "At some point archaeologists need to stop being stuffy scientists and let our imaginations fill in the gaps. It helps to make a connection with the people whose artifacts and ruins we work so hard to preserve." NP

Amy Leinbach Marquis is associate editor of National Parks magazine.

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DIFFERENT EXPERIENCES

RARE & ENDANGERED



A Stone's Throw from Extincition

How Glacier's stonefly can help fight climate change.

The polar bear may be the biggest, most charismatic animal threatened by global warming, but odds are it won't be the first species the federal government recognizes for that reason. That honor could go to an unassuming insect: a stonefly, located in the remote alpine streams of Montana's Glacier National Park.

The meltwater lednian stonefly, or mist forestfly, thrives in alpine springs and other freezing-cold waters formed by melting glaciers and permanent snowpack. The species earned its scientific name, *Lednia tumana*, for the ice (Russian "led") and mist (Russian "tuman") surrounding the Many Glacier area, where adult specimens were first collected in the early 1950s. Their larvae—red-brown, gill-less bodies less than an inch long—spend the winter clinging to the underside of rocks in streams that are typically below 0 degrees Celsius and covered by 12 or more feet of snow.

Like most insects, the mist forestfly lacks glamour, and thus attention and funding.

As a result, not much else is known about it. *Lednia tumana* have been reported in just two streams in Glacier and in one across the Canadian border in Alberta's Waterton Lakes National Park. Its range may also extend south into Montana's Bob Marshall Wilderness and as far north as Banff and Jasper National Parks in the Canadian Rockies.

What scientists can say with increasing confidence is that the insect's habitat won't remain ice-cold for very long, and it could eventually dry up. "Historically, the park had about 150 glaciers, and now we're down to 25," says Dan Fagre, who works for the U.S. Geological Survey inside Glacier National Park. What's more, the rate of glacial ice loss today is three to four times that in the 1960s. Previous computer modeling indicated the park's glaciers would be gone by 2030, but new data suggest they could vanish in just 10 years. "Our snowfields are disappearing along with the glaciers," Fagre says. "They're all part of the same phenomenon." That phenomenon is, of course, global warming. Rates of precipitation in Glacier National Park haven't changed significantly, but temperatures have, particularly in the winter, when glaciers and snowpack build insulation for summer. Like other temperate mountain areas, the park has warmed at two to three times the global average.

Alpine aquatic ecosystems rely on a particularly delicate balance of late-season snow and ice melt. "Many other species occur in these same types of streams that Lednia occurs in," aquatic taxonomist Joe Giersch says—including a rare caddisfly and an even rarer crustacean that dwells in the groundwater beneath the Earth's surface. "It's really a whole ecosystem we should be concerned about, rather than just one species."

In August 2009, the U.S. Fish and Wildlife Service (FWS) listed *Lednia tumana* in a group of 29 species deserving of a full-status review under the Endangered Species Act. The stonefly passed the first hurdle for federal protection because of "climate-changeinduced glacier loss," according to the Federal Register. In late December, the group WildEarth Guardians sued the agency, hoping to force a decision on the species' listing—a decision that is now nearly two years overdue.

Even if the agency declares the stonefly endangered, it won't be enough to rescue the species. There's already too much momentum in the climate system to prevent glacier loss, Fagre says. The glaciers could eventually re-form, as they have in the past—"it's just not going to be in our lifetimes," he says.

But adding the stonefly to the endangered species list might help tackle the bigger problem of global warming, because the Endangered Species Act isn't necessarily designed to save just one species. "It's an important tool in the toolbox for fighting climate change that we've had all along," says Nicole Rosmarino, wildlife program director for WildEarth Guardians. FWS would have to designate critical habitat that the species needs to survive and recover, she reasons. And while the park has no control over melting glaciers or reduced snowfall, to some extent, the federal government does. "The Fish and Wildlife Service would finally have to decide the extent to which it can use the Endangered Species Act to regulate greenhouse-gas emissions," Rosmarino says.

Climate change is rippling across the landscape in other ways, too, causing insect outbreaks, more intense wildfires, and plant migrations. "Everything in the mountain ecosystem is being affected," Fagre says. "It turns out that glaciers are simply the most visible manifestation of that."

But other species still have time to recover, including animals like pikas, wolverines, bald eagles, and grizzly bears—all of which are tied to climate cycles through habitat and prey. And their collective fates may be linked to protecting something invisible to most park visitors: a humble stonefly. NP

Jennifer Bogo is the science editor at *Popular Mechanics.*

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BY JOHN GROSSMANN ILLUSTRATION BY STEPHANIE DALTON

As America's population becomes more diverse, will its changes be reflected in park visitors?

Expanding the Dalette

THE STORY NEARLY ALWAYS BEGINS AT SUNSET

with someone perched on the rim of the Grand Canyon, accompanied by a friend or family member... spellbound by the roar of Old Faithful in Yellowstone... or weary from a long hike, but exalted atop Half Dome in Yosemite. The first warm glow of a lifelong love affair typically washes over the park visitor at one of the crown jewel national parks or a stunning natural setting courtesy of Wilderness with a capital "W."

palette

More than 90 years into the national parks' era, this version is increasingly dated-not only because of the variety of the system's 392 units but the changing cultural and racial face of America itself. Saoran Reouth, 22, American-born of Cambodian emigrants, proudly wears a Park Service uniform at the first national park she set foot in, Lowell National Historical Park, in her Massachusetts hometown. Shandra Roberts, 33, an African-American mother of five from North Homestead, Florida, represents what can happen to an unlikely visitor to Everglades National Park. Mariajose Alcantara, 20, reared in San Francisco's Mission District by Salvadoran-born parents, never would have visited Yosemite and Grand Canyon had she not been blessed with an extraordinary "gateway" park experience within an urban park in her native city.

Three new faces on three new paths to three very different parks (see sidebars). And with the imminent release of the latest comprehensive study of park visitation demographics, their stories are especially timely as new leadership at the Department of the Interior and the Park Service refocuses the complex debate over the whys and what-to-dos about the longstanding under-representation of minorities in the parks. As far back as 1962, a presidential initiative called the Outdoor Recreation Resources Review Commission found that minorities visited national parks and forests far less than white Americans. For years, the prevailing theories pointed to populations that were marginalized because they lacked the means or transportation to escape the city for the fresh air and captivating vistas of distant wilderness.

More recently, there's been increasing talk of the need to bridge a different gap. Before his eloquently rendered passion for the parks made him a celebrated talking head in Ken Burns' documentary, Yosemite park ranger Shelton Johnson was quoted at length as one of 20 featured role models in a 2006 book by Dudley Edmondson called Black & Brown Faces in America's Wild Places. Johnson grew up in Detroit, more than 2,000 miles from Yosemite, but he recalls feeling "philosophically and psychologically at a much greater distance."

And why wouldn't he and other African Americans, argues Carolyn Finney, an assistant professor of environmental science, policy, and management at the University of California, Berkeley, citing the results of her ten-year review of the photos in



SAORAN REOUTH Lowell National Historical Park

hat brought Saoran Reouth to Lowell National Historical Park? Not her Cambodian parents, who settled in Lowell, Massachusetts, in 1985. "Truthfully, I didn't even know the park existed, and I don't think my parents did, either," she says. She first set foot in the park her freshman year at the University of Massachusetts-Lowell. Needing a job to help pay her tuition, she signed on as a youth facilitator with an environmentally oriented work-study option called the River Ambassador Program, which involved some canal cleanup in the park.

Little did Reouth realize how fateful that choice would turn out to be. But then, neither did she know that her hometown national park was increasingly becoming a model of outreach to its ethnically diverse community. Roughly one-third of the city's 100,000 residents are of Southeast Asian ancestry.

So nowadays, when park rangers tell the story of Lowell's founding on the Merrimack River as a booming textile mill town settled by Irish and French Canadians, they include their Asian neighbors in Lowell's ongoing story by broadening the discussion to the challenges of immigrating to a new country. Moreover, the park has a history of strong ties to the community by virtue of a summer-employment program called the Spindle City Corps, which is administered by a local community-service organization. The eight-week program delivers some two dozen local students to the park for maintenance work, from painting railings and cutting



grass to removing brush along the park's waterways. Educational components help students understand the park, introduce career opportunities with the Park Service, and spell out environmental issues surrounding the Merrimack River watershed.

Reouth now works in the park four days a week in the interpretive division while she attends graduate school. "I love the Organic Act [the parks' founding legislation]," she says, "how it's good for future generations, to protect and preserve. That's why I brought my niece over here, to help her think the same way as me."

Outside magazine. Of some 6,980 photos with people in them, Finney counted only 103 photos depicting African Americans. "Almost all of them were well-known black male sports figures in urban settings," she says, stressing, "The media plays a powerful role in terms of what stories we tell about black people and the environment."

There's more to this psychological gap than an unfamiliarity with hiking a ridge, pitching a tent, or cooking over a campfire. There's fear. Plain and simple. And not simply fear of wild animals. "There are thousands of people alive today who experienced discrimination in the parks," says Nina Roberts, associate professor of recreation and parks management at San Francisco State University. Moreover, she says, because of the collective memory of groups of people, "the stories are passed down generation after generation and many [African Americans] don't see the parks as safe havens." Roberts, a former education and outreach specialist for the Park Service and the biracial child of a white father and an East

SHANDRA ROBERTS **Everglades National Park**

ntil her family was tapped for a local public television program called Into the Wild, Shandra Roberts had never been to Everglades National Park, only a 20-minute drive from her home near Miami. The idea for the reality show, which depicted the family's overnight experience in the park, bubbled up in a brainstorming session of Everglades Park officials led by Alan Scott, head of interpretation. Scott knows only too well the startlingly low park visitation statistics among local residents. Although metropolitan Miami is home to some 6 million residents, of whom 54 percent are Hispanic and 14 percent are African American, these groups represent only about 3 percent and 1 percent of visitors to the park, respectively. That imbalance augers poorly for the long-term health of the park, he emphasizes.

"Everglades was the first national park established because of what's alive-its plants and animals-and and it cannot survive on its own," Scott says, "This is one of the most endangered national parks in the country. It's the downstream recipient of all watermanagement decisions, and the people who live next to it have a huge impact on the park and its health and its wildlife." More numbers put a finer point on his concern: A 2005 south Florida population study related to the comprehensive Everglades restoration plan found 54 percent of [of people] were unaware of Everglades National Park or Everglades restoration plans, and 34 percent of local residents had a negative attitude towards park resources.

The goal of the fall 2009 Into the Wild broadcast was to help spread the word about a planned offering called CAMP, or Camping Adventure with My Parents, a facilitated camping trip for area residents unfamiliar with the park and camping in general. If not for the strong desires of the Roberts's three oldest children, the family would never have agreed to be filmed at home and then followed throughout their overnight experience in the park. "I did know the park was there. I just didn't care to go," Roberts says. "My biggest fear was alligators and

how close they would be. And sleeping outdoors-I didn't know who was out there."

The night before their Everglades park experience, Roberts slept poorly. But when she saw the campground, she thought: "This isn't bad. It's not woodsy. There's an actual campsite and other people around who are very friendly." Her family had a wonderful time. Aside from a bit of a panic attack in a canoe, Roberts did, too. "We made s'mores around the camp-

fire and talked about our experiences." Exhausted from the day's events and lulled to sleep by the ambient evening sounds of the Everglades, Roberts enjoyed a good night's sleep.

The trip was such a success that the family signed on to return for the first of two CAMP weekends this year-and planned to bring the two youngest children this time. Roberts, who spoke about her experiences at Audrey and Frank Peterman's "Breaking the Color Barrier in the Great American Outdoors" symposium last September, has been talking up the CAMP program to family and friends ever since. And she's learning what the Petermans and other diversity advocates discovered long ago: Inertia imposes a tough hurdle.

"There are some people who want to go, but there are more dead set against it," says Roberts. "I tell them not only is it safe out there, but the family time is great. There's no TV and no phones and you don't hear the police sirens. It's really peaceful. But my best friend, she still doesn't want to go." Early this year, in frustration, Roberts wrote on her Facebook page: "Why is it so hard to get us [African Americans] to camp? It's like pulling teeth."



Indian mother, has been studying the parks' diversity divide for decades. A few years ago, in Denver, in the shadow of Rocky Mountain National Park, her research brought this admission from a local resident: "My granddaddy told me the KKK hangs out in those mountains. Why would I go?"

She's not alone. Mickey Fearn, National Park Service deputy director for communications and community assistance, also evokes the ultimate racial horror. "I can only say it as clearly as I can say it: Every picture you see of a lynching is in some kind of rural area. For Native Americans and Hispanics, their situations are

ism and discrimination in the city's employment ranks.

But if Fearn has one foot planted solidly in urban affairs, the other is planted just as firmly in nature. He's one of four people featured in a documentary film about people who had transformative experiences in the redwoods. "Man's heart away from nature becomes hardened," he says, quoting Chief Luther Standing Bear. Even so, he's quick to point out that wilderness experiences don't necessarily appeal to everyone, and that to believe they do is to misdirect efforts to increase the diversity of national park visitors.

"You can't change people by using your value system if they have a different value system than you do. The underlying assumption that people

G You can't change people by using your value system if they have a different value system than you do. **>>**

different. But for black people, I think in the back of their minds, it's 'I don't feel safe in those places."

Fearn, who is 63, stood alongside the reflecting pool on the National Mall on August 23, 1963, when Martin Luther King invoked his dream of a more equitable America. In college, Fearn chaired the affirmative-action committee at California State University, Sacramento. He began his parks and recreation career working with gangs on the playgrounds of East Los Angeles. He spent more than four years as manager of Seattle's Race and Social Justice Initiative, spearheading former Seattle Mayor Gregory Nickels' effort to end rac-

seemed to be making is that the only reason a person in his or her right mind would not go camping and hiking is because they didn't know about it or have the money or transportation," Fearn says. "That's been the assumption for well over 40 years, which means the perception is: We need to go out and change or fix the people who just don't know what a great deal this is and tell them what a great deal this is and they'll come, when in fact, the challenges are much deeper than that."

"I used to kid people about this," Fearn continues. "Sure I want to drive an hour, put 30 pounds on my back, walk in five miles, sleep on the

Expanding the palette

ground, eat dehydrated food, and not be around people like me for two or three days."

Of course, the National Park System has grown to encompass far more than a cache of stunning wilderness vistas. It now also includes national monuments and memorials, Civil War battlefields, lakeshore and seaside sites, scenic rivers and trails, and national historic sites. It was to a historic site-the Atlanta birth home of Martin Luther King, Jr.-that Carolyn Finney took her father some years ago. Throughout Finney's childhood, her father was the chauffeur, gardener, and caretaker on a 13-acre estate in Mamaroneck, New York, and her mother was the housekeeper. "My father worked outdoors all his life, but going to a national park was not

something that really interested him,' says Finney. But that day, in the visitor center at the King historical site, after listening to the voice of Dr. King and seeing decades-old photographs and filmed footage, her father suddenly grabbed her arm.

"I thought he was having a heart attack," she says. "Then he started laughing nervously, and I asked if he was okay." Father and daughter stood facing a replica of a sign that said "WHITES ONLY." The museum displays brought back such vivid memories for her father that he had flashed back to his youth and believed for a moment the sign was real, that they weren't supposed to be

palette

there. "At the end of the day he told her, 'You know, I didn't think this was going to be very interesting, but I really enjoyed this." Her father didn't expect the park site would resonate so personally or engage him so profoundly, she says, underscoring that his national park epiphany "wasn't in Yosemite or Yellowstone."

Indeed, few of the most successful diversity programs take place at the big-name parks with the most iconic views. Moreover, these little victories merit attention; thanks to effective community outreach, some of what other parks are doing?" asks Nina Roberts. "From what I see, it's very piecemeal."

There's evidence that new leadership in Washington is committed to addressing the issue. It's helpful, of course, to have the country's first African-American president vacation with his wife and daughters in Yellowstone and Grand Canyon during his first summer in the White House. Helpful, too, that Secretary of the Interior Ken Salazar sees diversity from the vantage point of a Latino with a 400-year family history in and all the staffs are connected, but we have this tendency to want to disconnect things, to have randomness, this ad hocism. I think that's one of the things that nature teaches us, that everything's connected."

Dudley Edmondson wrote his book to encourage African Americans to make nature and the environment a part of their lives. He did so because in his two decades as a professional photographer in national parks and other public wilderness areas, he has almost always found himself the only African American

66 As white Americans become the country's new minority, much more of the stewardship support for the parks will need to come from ethnic groups not currently flocking to the parks.

dedicated and creative program directors, and the help of local friends organizations, they are blazing trails every bit as important as those that lead to Yellowstone's Lower Falls or the Grand Canyon's north rim. With demographers predicting that in 50 years the nation's Asian population will double and the Latino community will triple, leaving white Americans the country's new minority, much more of the stewardship support for the parks will need to come from ethnic groups not currently flocking to the parks.

Happily, there are many new faces on new paths to the nation's parks human bridges, if you will, across the diversity divide that plagues the national parks. But not nearly enough. "There are a lot of success stories and best practices, but why aren't more parks trying to recreate the United States. In February, Park Service youth coordinators joined representatives from a host of youth corps and service organizations for a day-long symposium in Washington, D.C., to discuss best practices. Admitted George McDonald, youth programs manager for the Park Service, beforehand: "This will be our first meeting face to face in years. It's long overdue."

Mickey Fearn agrees. Although he is new to the Park Service—or perhaps *because* he is new—he has begun to speak up within the ranks. "I've said to people in the leadership of the National Park Service how much we deal with ecology on a dayto-day basis and how well people in this agency understand ecology. But they do not understand that our organization is an ecological system. The historical, cultural, and physicalor person of color. And yet he's optimistic that will change, but only if today's young African Americans and Latinos and Asian Americans, and years from now, their children, feel a connection to America's public lands. That connection can be forged in any one of the Park System's 392 sites, but forged it must be. "Because the reality," Edmondson says, "is that people protect what they love and understand. And having that sense of ownership is extremely crucial to people of color if you expect them to ever really latch on and feel that public lands are important to protect and preserve." NP

John Grossmann is a freelance writer living in Mountain Lakes, New Jersey, who has written for Audubon, National Wildlife, The New York Times Magazine, and Sports Illustrated.

MARIAJOSE ALCANTARA Golden Gate National Recreation Area

ariajose Alcantara, who this summer will celebrate her second anniversary as a ranger at Marin Headlands, part of Golden Gate National Recreation Area in California, is the first in her family to attend college. And there's little chance she'd be wearing the Park Service Stetson hat or working toward her college degree were it not for a vibrant high-school internship program at Golden Gate called I-YEL.

Short for Inspiring Young Emerging Leaders, I-YEL dates to the early days of the Presidio-based Crissy Field Center, a partnership project run by the Golden Gate National Parks Conservancy in concert with the National Park Service and

the nonprofit Presidio Trust. Now in its tenth year, the Crissy Field Center was established expressly to draw diverse communities to the park. Last year, the center's workshops, field trips, and other youth programs served more than 20,000 kids, 80 percent from underserved communities. Additionally, in the last three years, some 2,000 outdoor ingénues have camped in groups on forestland on a bluff overlooking the Pacific Ocean. Group leaders from need-based organizations receive advance training on camping skills and leading nature hikes from yet another dedicated local partner, Bay Area Wilderness Training, which also provides necessary gear.

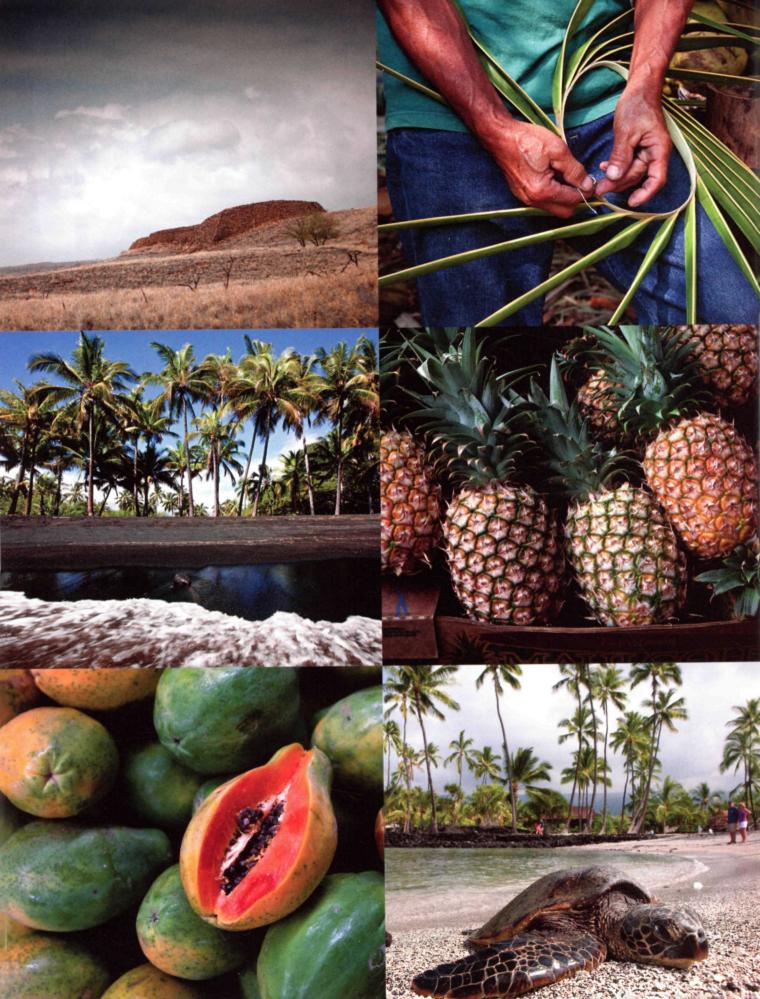
"I-YEL helped me gain confidence and leadership skills," says Alcantara. "You go through a lot of training, but we had no idea we were learning all this stuff because it was fun. While we were doing it we were hanging out with some amazing people and learning how to teach workshops and speak to a large crowd"—which she did after graduating from high school, when I-YEL helped get her a summer job as a park ranger at the Grand Canyon.

Following through on its goal of developing young leaders, I-YEL not only inspires its interns to set their



sights on college but workers help with applications, submit stellar recommendation letters, and even lead group overnight trips to tour California colleges. As a result, 42 of the 51 alumni of the program (83 percent) have either graduated college or are currently pursuing a college degree. "I've got kids who didn't think they were going to graduate high school and they're going to Dartmouth, Smith, Berkeley," says Christy Rocca, director of the Crissy Field Center. Alcantara began at Cal State–Hayward and is continuing her studies online through Phoenix University because the demands of commuting to school and her job at Marin Headlands became too much.

A career in the Park Service appeals to Alcantara for many reasons. Perhaps foremost is her pride in being a young Latina park ranger. "I can tell all my friends about the park, and when I see a Latin family, I can approach them and say hello in Spanish and make them feel welcome," she says, "because I know from experience that sometimes when Latin people see a person in uniform, they might feel they are going to yell at them, because maybe they're parked wrong or something. I feel I can be a role model and help make people feel welcome."





ON THE HISTORIC TRAIL OF VOLCANOES AND KINGS

LIFE IN THE EXTREME

FROM NEARLY EVERYWHERE ON THE ISLAND

of Hawai'i you can see one gentle sloping hill in the distance. It doesn't abruptly rise up out of grasslands or demand attention like the Grand Tetons. Rather, it subtly and humbly catches the light at sunrise, like a giant solar panel reflecting pink Cadillac pastels back into Hawai'i Volcanoes National Park. Yet despite its seemingly modest size and subtle coloration, this hill is Mauna Loa—the largest volcano on Earth and backdrop to the largest island in the chain of islands called Hawai'i.

TEXT AND PHOTOGRAPHS BY IAN SHIVE

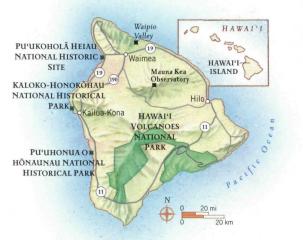
DREAMY LANDSCAPES, rare wildlife, traditional art, and local food define life on the Island of Hawai'i.

Mauna Loa is a lot like the rest of the "Big Island," as it's frequently called, a paradox of natural phenomenon that can both inspire a painter's gentle brush stroke or erupt in a violent cauldron of fiery earth. At first glance, the landscape may seem harmless, but its geography tells a different story of scorched trees and a chain of islands still in the making.

Visiting the island can be a challenge for the unprepared traveler, especially if you're expecting a pristine tropical getaway plucked out of the classic film From Here to Eternity, with honeymooners romping on the beach. This is not that island

Flying into Hilo will position you for quick access to the island's main attraction, Hawai'i Volcanoes National Park. Touted as the number-one tourist draw among all of the Hawaiian islands, the park is a short 30-mile drive up Highway 11, a route that will take you away from the developed landscape and into a dense rainforest.





Hilo and Kona are the two main airports, but most

THE PARKS OF HAWAI'I

ESSENTIALS itineraries require a change of planes on nearby O'ahu. Hilo is closer to Hawai'i Volcanoes National Park, but Kona has more to offer visitors, with its variety of hotels ranging from ultra-high-end (\$750 per night) to the more affordable, yet still well appointed for \$90-\$100). Although Hawai'i Volcanoes National Park offers no visitor services, two free campgrounds are available for up to a week. Volcano House Hotel and Namakanipaio Cabins located inside the park are being renovated, and will reopen to guests in spring 2011, so for now, visitors who prefer a hotel will find their best options in nearby Hilo (average nightly price, \$120).

A trip to the island of Hawai'i is enriched by the unique flavors of the South Pacific palate. Start your day with a cup of Kona coffee, one of the

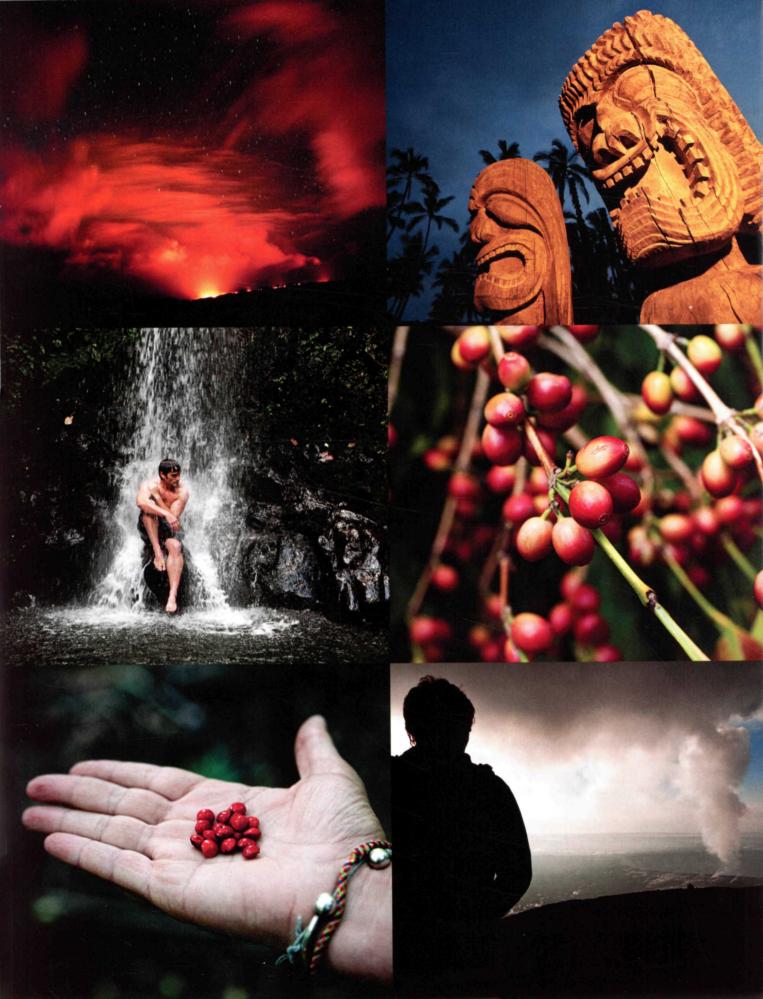
most sought-after and expensive coffees in the world. Kona's unique setting puts it in the path of weather patterns with sunny mornings and rainy afternoons, and its porous, mineral-rich volcanic soil contributes to the fine grade of this bean. Only coffee beans grown here can legally carry the name "Kona" on the label.

It can be tricky to find good food on the island, but a few places along the way are guaranteed to please. Just beyond the boundary of Hawai'i Volcanoes National Park, in the town of Volcano, you'll find Chef Jonah Gieson's Kiawe Kitchen. Chef Gieson, a graduate of California's Le Cordon Bleu Academy, fills the menu with touches of locally grown produce such as eggplant

Napoleon—a dish of eggplant roasted in a romano and parmesan crust layered in island-grown tomatoes and topped with capers and feta. The menu changes daily, and entrees range from vegetarian pastas to gourmet wood-fired pizzas topped with Alaskan salmon. Farther up island, in the town of Kawaihae near the Pu'ukoholā Heiau National Historic Site, you'll find the staff at the Kawaihae Harbor Grill and Seafood Bar slinging Hawaiian and Southerninfluenced meals such as black bean seafood gumbo or seafood quesadillas. And if you're ever unsure of what to order at a local eatery, ask for locally caught fish, and you're unlikely to be disappointed.

HARDENED LAVA creates an apocalyptic landscape at Pu'uhonau o Hōnaunau National Historical Park.

Massive battlefields of lava overtook the landscape, paving it like black icing on a cake.



• • •

VISITORS CAN PONDER cultural artifacts, taste world-famous coffee made from local beans, and experience the lands' greatest extremes—from meditative pools to the most active volcano on Earth.

To get the best views, take the Heritage Drive beginning on Highway 11 and circle the entire island.

The centerpiece of the park is Kilauea Volcano, which has been erupting since 1983, earning it the title of most-active volcano on Earth. But despite that title, most visitors will be disappointed to learn that there is often no red-flowing lava to be seen. Occasionally, a flow erupts in the park, but if you're lucky enough to see it, you've hit the "lava lottery," as the Park Service calls it. That doesn't mean the mountain is asleep. Despite the lack of lava, the volcano can expel a column of sulfur-dioxide gas that rises like a nuclear mushroom cloud and reminds visitors that our big blue marble is still a work in progress. On still days, the cloud covers the volcano's summit, prompting the Park Service to post signs warning of poor air quality and advising guests

to keep the car windows rolled up. In concentrated doses, sulfur dioxide can be lethal, but it generally appears as a haze or smog; locals have named it "vog," shorthand for volcanic smog. (Not sure if it's fog or vog rolling in? Just smack your lips. If you taste a mouthful of pennies and your nasal passages begin to burn, it's vog.) Vog's impact has been so severe so often that a portion of Crater Rim Drive near Halema'uma'u crater has been completely shut down to visitors since February 2008. Despite this, the overlook of the volcano is stunning and otherworldly, and the flavor of the air just adds to the primordial experience.

Moving south of the volcano's summit, you can follow Crater Rim Drive past the Thurston Lava Tube, a huge subterranean tunnel carved out by lava created as it worked its way above ground. Visitors can walk several hundred feet through the lava tube and emerge in the most dense rainforest in the park. Continuing on down the Chain of Craters Road, you'll eventually meet the Pacific Ocean, where massive battlefields of lava overtook the landscape, paving it like black icing on a cake. Nowhere else in America can you stand on the edge of the ocean with a block of rock beneath your feet-some of it only a few years old-and know that the land is still growing, slowly covering the ocean in a protective black casing forged by fire. It's a beginning and an ending, because this is the spot where the road toward the east rift has been cut off, overtaken by a flow.

THE OBSERVATORY'S visitor

SIDE TRIP

MAUNA KEA OBSERVATORY

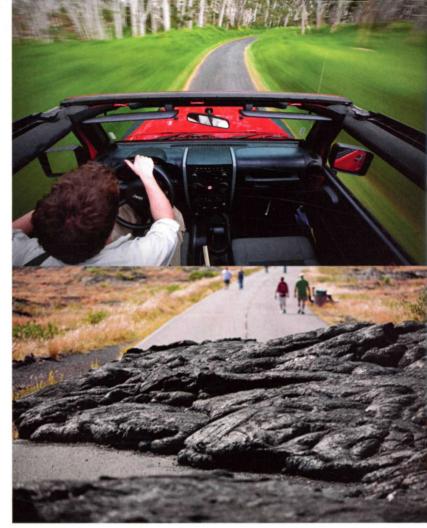
It's no coincidence that the largest volcano in the world, Mauna Loa, has a view of the tallest mountain in the world, Mauna Kea. Formed by the same forces that made all of the Hawaiian Islands, Mauna Kea rises 13,803 feet above the water, and nearly 20,000 feet of mountain are submerged below the surface, making it taller than Mt. Everest. Combine its height with its location in the middle of the South Pacific Ocean and you get one of the top four places to see the night sky. The otherworldly summit is home to the famed Keck Observatory and many other high-grade telescopes, and it will soon be home to the single largest optical/infrared telescope ever built on Earth, the Thirty-Meter Telescope. But you don't need to be a professional astronomer to appreciate the beauty of this place. The visitor center hosts nightly star tours through the heavens, using handheld lasers to point out constellations and setting up a dozen or more telescopes so people can admire nebulae and galaxies far, far away. Dress warmly; although this is the tropics, the high elevation frequently brings snow to this blustery location.



Slap on a pair of fins, mask, and snorkel and experience a coral reef straight out of *Finding Nemo*.

> Even if no lava is flowing in the park, there's still one way to catch a glimpse of the fiery red stuff. Just beyond the park's southeastern boundary in an area known as the East Rift Zone, Pele—the Hawaiian goddess of fire—is often still at work. On occasion, lava erupts here and enters the ocean, causing a massive steam plume and a red glow so hot and bright that even the night clouds reflect its luminance. This has become one of the most famous sites on the island for viewing, and it's currently maintained by the Hawai'i Civil Defense Service, which has set up an impromptu visitor's station.

> But Hawai'i Volcanoes National Park is just the tip of the lava rock. If you're visiting for a week or more, you can explore a stunning string of blacksand beaches and national historic sites dotting the coastline and leading out of the park, winding all the way up to the northernmost point of the island. To get the best views, take the Heritage Drive beginning on Highway 11 and



circle the entire island, then come back into Hilo at the end opposite your departure point.

As you exit the park heading westbound and slightly north in your rented Jeep, you're guaranteed to laugh for the next 20 miles as you try to pronounce the names on road signs revealing the "Punalu'u Black Sand Beach" or "Welcome to Pu'uhonua o Hōnaunau." The former locale, just beyond the western border of Hawai'i Volcanoes National Park, is managed by the county, and it's one of the rare places on the island to experience a truly black rock beach. It's also a great place to dip your toes into the warm waters of the Pacific.

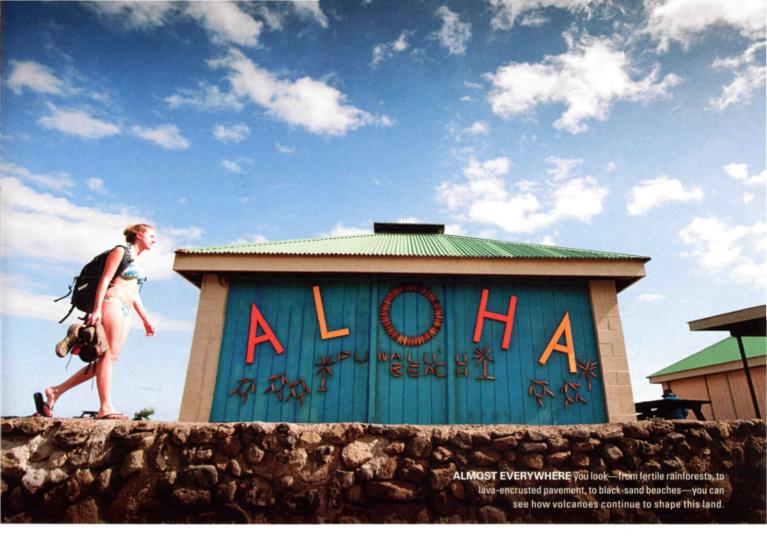
Continuing along the heritage drive toward the resort town of Kailua-Kona, you'll first encounter a spiritually stirring national historical park, the Pu'uhonua o Hōnaunau or "place of refuge." At the "Nau," as locals sometimes call it (pronounced "now"), Hawai'i's past comes to life





WAIPIO VALLEY

The Big Island can feel like a desert, with its fields of black lava that would seem barren if not offset by the royal blue waters that surround the island. But for some reason—perhaps fortunate geography—there is one place that carries the entire tune of Hawai'i's rich history and picturesque landscape, and that is the Waipio Valley. Located on the northeast corner



in the traditional lifestyle preserved for future generations. Ancient temples made with thatched roofs are scattered among pools of blue water mingling with black lava, inspiring the native population to step to the edges and enact ceremonial dances at the very place where sea meets rock. It's also a great spot to catch a glimpse of Hawaiian green sea turtles, an endangered species that can be admired from a distance as they rest on the beach. Just beyond the park's boundary is one of the best places on the entire island to slap on a pair of fins, mask, and snorkel and experience a coral reef straight out of *Finding Nemo*. A brief free-dive below the water might fill your ears with the soundtrack of parrotfish munching on the hard rock coral or the song of distant humpback whales.

Heading farther north, you'll pass through the popular resort town of Kailua. You may encounter a sleepy little town on your visit, but locals roll out the red carpet when a large cruise ship is anchored offshore. As the boat-loving tourists pile in, locals with parrots on their shoulders and hand-crafty artisans line the streets, furiously making leis for a few dollars. After a brief stay here, head north out of town to Kaloko-Honokōhau National Historical Park, where you'll see an ancient Hawaiian technology, the *loko kuapa* or rock-wall fishpond, a sort of lagoon that native Hawaiians used to catch fish. This is just a brief

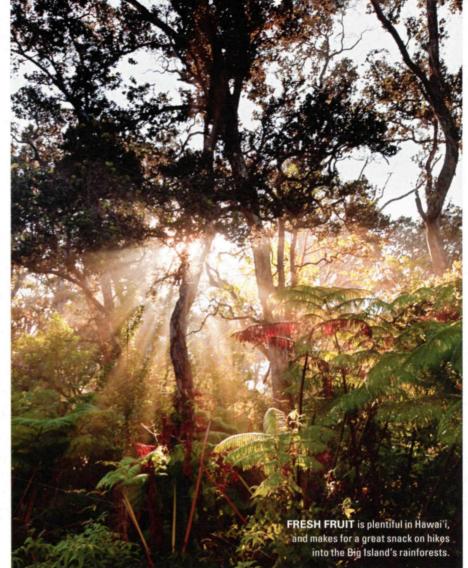
of the island along the famed Hamakua Coast, the valley is a jungle so dense that even Tarzan would have a hard time finding his way. But you should have an easier time leaping into your four-wheeldrive vehicle and heading for the place where King Kamehameha and many early Hawaiian kings ruled the entire chain of Hawaiian Islands. This valley's beauty may have given the islands their Jurassic reputation. The region is unmatched in the diversity of wildflowers, the vibrancy of blue water and blacksand beaches, and the cacophony of frogs and birds. Its canopy of trees is so closely intertwined, you might be tempted to leap off the surrounding cliffs in the hopes of bouncing off the green trampoline of lush vegetation. If that doesn't sell you, almost everything you find in the valley is edible, including pomelos, tangelos, oranges, avocados, and more. stop on your way to the final National Park Service site along the coastal highway, Pu'ukoholā Heiau. Originally built as a sacrificial temple by King Kamehameha I, the temple became an impromptu fortress during a series of battles in the late 1700s. Built entirely by hand, out of red rocks transported by a human chain 14 miles long, the temple still stands today and marks the northernmost end of a necklace of history along the Big Island's coast. NP

Ian Shive is a writer and photographer living in Los Angeles. His first collection of photographs, *The National Parks: Our American Landscape*, was released last fall.



TAKE A JOURNEY to Hawai'i in a 4-minute video presentation

featuring more of the imagery captured during Ian Shive's time on the island. Visit www.npca.org/magazine/hawaii.



Join NPCA in **Hawai'i** This Fall

TRIP DATES: November 6–14, 2010

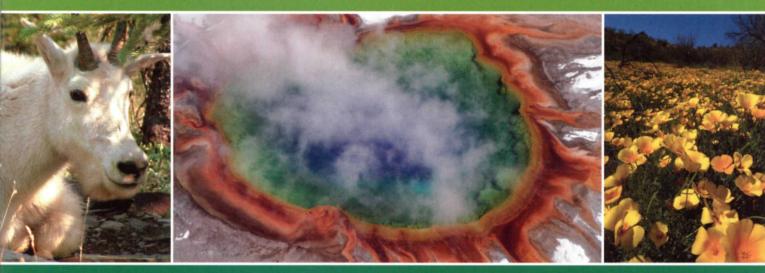


TRIP DESCRIPTION: Join NPCA this November to explore six of Hawai'i's national parks by land and sea, with expert naturalists, historians, and cultural specialists to guide you along the way. The journey starts with an inter-island flight from

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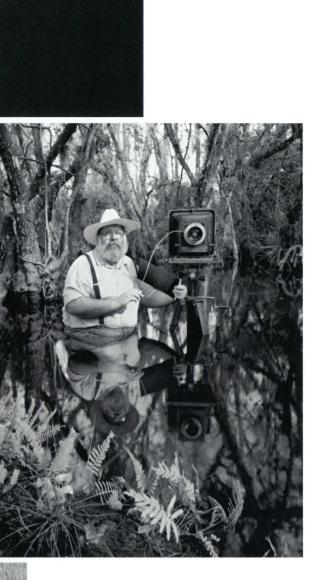
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Wading into WILDERNESS

PHOTOGRAPHER **CLYDE BUTCHER** CAPTURES THE HEART AND SOUL OF FLORIDA'S MOST PRISTINE WETLANDS.

BY AMY LEINBACH MARQUIS

IN 1984, CLYDE BUTCHER (above) ventured into Big Cypress National Preserve with his camera; two years later, he began photographing the landscapes exclusively in black and white. This photo of Ochopee was one of his first departures from color.



BEFORE CLYDE BUTCHER moved from California to Florida in 1980, he trekked through Pacific redwood forests, across the shorelines of Hawai'i, and deep into Washington's Olympic peninsula, photographing every stunning landscape he could find. But when he and his family arrived in the Sunshine State in pursuit of sailing, he wasn't inspired to point his lens at much of anything—not even in Big Cypress National Preserve, one of the most photogenic landscapes in the larger Everglades ecosystem.

The problem? Florida wetlands don't look like much from the side of the road. But once Butcher dove into the heart of them—four long years after his arrival—he was enchanted. Twenty-six years later, Butcher is celebrating the release of his book of photographs,

Wading into WILDERNESS

Big Cypress Swamp: The Western Everglades, highlighted on

the following pages. Butcher also teamed up with longtime

friend and filmmaker Elam Stoltzfus to host a documentary

of the park, which aired on PBS stations across the country.

It all started in 1984 with Oscar Thompson, a local pho-

tographer and fifth-generation Floridian who spent his life

tromping fearlessly through swamps. Sure, Butcher had

peered into Big Cypress National Preserve from the wooden

planks of a boardwalk, but Thompson kept urging him

deeper into the park. It would mean wading through up

to two feet of water, into a trail-less expanse of the coun-

try's wildest wetlands—and shaking scary images of swamp

things that had been planted in Butcher's brain for years.

snakes and you think, 'Oh gosh, this is dangerous,'" he

says. "But once Oscar got me off the road, I really got in

tune with what it was all about. It wasn't as ominous as

"In California, you see all these movies of gators and

(For more on these projects, visit www.clydebutcher.com.)

BUTCHER OFTEN VISITS the

same place dozens of times to get the photograph he's striving for. His patience and persistence pays off in the form of impeccably lit wetlands, perfectly composed ponds, and rare finds like this clamshell orchid (right).



Cypress trees are closely related to the western giants.)

the movies made

it out to be. I

actually felt like

I was back in

the redwood

forests." (And

rightfully so:

Soon, Butcher was hiking through the preserve regularly with a large-format camera, while his wife, Niki, kept stride, carrying extra film on her back. He had discovered his life's passion. So when the couple stumbled on a private plot of land for sale in the heart of Big Cypress National Preserve, they purchased all 13 acres and built their house and a photo gallery to showcase Butcher's images. Their daughter, Jackie, helps run the business, along with a second gallery in Venice, Florida.









BUTCHER SOMETIMES FINDS HIMSELF in the right place at the right time—whether he's waiting for rain to make the ferns look just right, photographing storm clouds minutes before a downpour, or simply drinking tea on the front porch when a red-shouldered hawk lands directly in front of him and spreads its wings.





BY SHOOTING LANDSCAPES EXCLUSIVELY IN BLACK AND WHITE, HE REALIZED HE COULD OFFER A MORE COMPLETE DEPICTION OF THE NATURAL WORLD.

edy that intensified Butcher's relationship with the land The Butcher family quickly became the park's greatest champions, creating the Friends of Big Cypress and, and photography. He never photographed a landscape in more recently, donating solar panels to the park's new color again. Suddenly, he saw his work as the critical tool that could help protect the land that had become his spirvisitor center, which celebrated its grand opening this itual refuge—and by shooting landscapes exclusively in spring. Butcher also began introducing others to the black and white, he realized he could offer a more comlandscape: politicians, filmmakers, friends, and even the general public. People started showing up in the thouplete depiction of the natural world and inspire others to sands for the Butchers' semi-annual swamp walks until join his cause. "If a person likes blue, he'll see the sky," he says. "If he likes green, he'll see the grass. But everything Butcher was forced to cap attendance at a more manageable 600 participants last year. relies on everything else, and without that, nature doesn't Those who don't like to get their feet wet can experience work. So when you see a black-and-white image, you see the landscape through Butcher's enormous 5-foot-by-9everything at once. It has a oneness to it." NP

Those who don't like to get their feet wet can experience the landscape through Butcher's enormous 5-foot-by-9foot prints that hang in the galleries. But they won't see much color there, and there's a reason for that. In 1986, the Butchers' son was killed by a drunk driver, a trag-

TRAVEL PLANNER

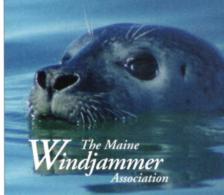




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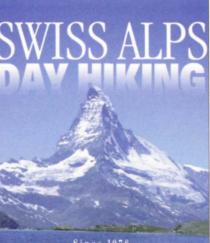
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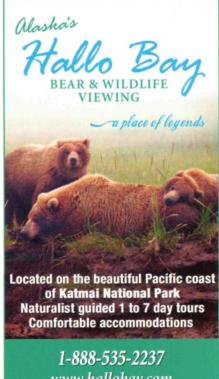
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HISTORIC HIGHLIGHTS

By Ethan Gilsdorf



House of Worship

At Touro Synagogue, the Jewish story is the American story.

t's practically a cliché for a tourist site to claim "George Washington slept here" as a way to establish historical street cred. In the case of Touro Synagogue in Newport, Rhode Island, Washington didn't actually spend the night, but his connection to the synagogue was more than plaque-worthy. At a crucial moment, Washington lent his support to Newport's nascent Jewish community, a gesture that feels all the more poignant today, given how few people know that Jews were among this nation's earliest settlers. Before the American Revolution, the synagogue was the hub of Rhode Island's Jewish community. But the war brought hardship. First, British forces occupied the city and converted the synagogue into a hospital. Later, France used Newport as its base of operations, and Jewish families fled the city. The synagogue was used variously as a state house, courthouse, and city hall. When General Washington came to Newport in 1781 to make battle plans with Generals Lafayette and Rochambeau, he visited the synagogue for a town meeting, not a religious service.

After the war ended, the Jewish community returned to Newport, and the synagogue was again occupied by its congregation. Here's where Washington reappears. It's 1790, and the U.S. Constitution has been ratified. But the Bill of Rights—in particular, the First Amendment's guarantee that "Congress shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof"—has yet to become law. Washington, Thomas Jefferson, and other politicos hit the road to persuade reluctant states to vote for the first ten amendments.

In Newport, Washington's entourage is greeted by civic and religious leaders, among them Moses Seixas, warden of the synagogue, who wants to know how the new government will treat Jews. Washington writes a letter to "the Hebrew Congregation in Newport" a few days later, promising that the United States of America would give "to bigotry no sanction, to persecution no assistance" and that any group hoping to enjoy "the exercise of their inherent natural rights" would no longer be at the whim of an individual leader or "the indulgence of one class of people."

So a full year before the Bill of Rights was ratified, Washington expressed a commitment to religious liberty and civil rights. His letter may have been addressed to American Jews, but it also helped secure freedom of religious expression for groups like Baptists, Catholics, Presbyterians, and Quakers.

Of course, the Jewish road to tolerance was particularly rough. During the Spanish Inquisition, Jews were kicked out of Spain in the late 15th century. Those who had settled in the Dutch West Indies were expelled again in the 1650s. Where to wander next? Some went to New Amsterdam. Others learned of a place called Rhode Island and Providence Plantations.

"Rhode Island was founded on religious freedom," says Rabbi Mordechai Eskovitz, who heads the synagogue and occasionally leads the Sunday afternoon tours of the synagogue. "The word got out."

First to come: a group of 15 Jewish families from Barbados, who arrived in Newport in 1658. The community flourished. A century later, Isaac Touro was sent from Amsterdam to lead the Jewish outpost. A year after that, the congregation began to build its synagogue to house between 20 and 30 families; it would face east, toward Jerusalem.

Although many old synagogues are tucked away on hidden alleyways, Touro chose a hilltop site in the town center. Why? According to Bea Ross, the congregation's co-president, this proved that the Jewish community felt accepted in Newport. Ross called the structure's design-12 pillars holding up a Georgian "classic Colonial"the "perfect combination of restraint and exuberance." Electrical wiring has since been installed; otherwise, the synagogue, its paint scheme, and its furnishings, such as the menorah and candle holders, remain as they were in the late 18th century. Among its oldest treasures is a 500-year-old torah printed on deerskin, smuggled out of Spain and now

displayed behind glass.

Nearly 250 years after opening its doors in 1763, Touro Synagogue remains the oldest synagogue in America and a national shrine for prayer. Reform Jews sit next to Hassidic Jews. Even Christian worshippers come. "Any sinners among you?" asked Rabbi Eskovitz, poking fun at a group of latecomers during a Sunday afternoon tour. "Only people who have committed many sins have to come on time."

The synagogue became a national historic site in 1946. Today it's operated by the Touro Synagogue Foundation, in partnership with the National Park Service, the National Trust for Historic Preservation, and Save America's Treasures. The building attracts some 30,000 visitors per year everyone from history buffs to architecture students to those simply seeking spiritual connection.

But the synagogue is no dusty museum; Congregation Jeshuat Israel is based here. "It's not faked," says Ross of the daily services, weddings, and bar mitzvahs and bat mitzvahs that take place here. "These aren't re-enactments." Being a true working house of worship makes Touro Synagogue an even more compelling historical attraction.

Over Passover weekend, Elaine Wasekanes visited with her husband and two sons from Norwood, Pennsylvania. Her family is Jewish, she said, and she had seen the synagogue years before. "I wanted my sons to see this part of Jewish history," she says.

Here, the Jewish story is the American story. "We're part of a long chain of American history," said Rabbi Eskovitz. "People come here. They're looking for a living symbol."

At Touro Synagogue, they'll find it. NP

Ethan Gilsdorf is the author of Fantasy Freaks and Gaming Geeks and a freelance contributor to The New York Times, Boston Globe, and Christian Science Monitor.



APERTURE



GRAND CANYON NATIONAL PARK

Arizona

I shot this photo on assignment, during a 12-day rafting trip down the Colorado River. I remember standing in the Grand Canyon, looking out at this amazing scene, wishing there were a subject to give it some perspective—and that's when this group of rafters floated by. To achieve this look, I used the "tilt-shift" effect in Photoshop, which blurs portions of the image to focus the viewer's eye on a certain area, creating an impressionistic landscape. It reminds of the photographs created with large-format cameras a long time ago. I'm not one to mess with images in post-production, other than making minor corrections—but I'll make an exception for this effect if the right image lends itself.

This photo makes you want to be those people—feeling the wind, hearing the sounds of the river, and experiencing a place that looks the same as it did for tens of thousands of years. If you've never paddled a boat through the Grand Canyon, start figuring out how to make it a reality. It will change your life—or at the least, make you question your day job.

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