

NationalParks 28 LENTICULAR CLOUDS iust outside Katahdin **Woods and Waters** National Monument in northern Maine. **FEATURES** Over the River and Parks, Interrupted **Out of the Wild Through the Woods** National parks in the time of A life-changing summer among A wintry return to Katahdin COVID-19. the bears of Lake Clark National **Woods and Waters National** Park and Preserve. By Katherine DeGroff Monument. By Ken Ilgunas By Nick Lund **BROWN BEAR walking along the** shore of Crescent Lake in Lake **Clark National Park and Preserve** in Alaska. ENTS

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President's Outlook



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Laboring for Parks

As I write this, Labor Day is upon us, and I think not only of end-of-summer barbecues and back-to-school preparations, but also of the origins of the holiday itself, which can be traced to what is now a national park. And that story - like so many others — deserves to be remembered.

In the 1880s, George M. Pullman, known for his luxury railroad sleeping and dining cars staffed by Black porters, developed the town of Pullman just outside of Chicago. It was a model planned community where his employees could both work and live.

But things took a turn for the worse in 1893 when Pullman, in response to lagging demand for his cars, cut wages without reducing rent. The following year, his employees launched the "Pullman Strike," which spread across the railroad industry and forced America to address workers' rights and conditions. That same year, Congress established a national Labor Day.

The site of this momentous strike didn't fare as well. A fire gutted the town's clock tower in the 1990s, the original entry gate was demolished long ago, and other once-bustling places sat in disrepair. But Pullman was a place that deserved to be revived and have its history told.

After years of advocacy by NPCA, community partners, business leaders and many others, Pullman National Monument was designated in 2015. This park on Chicago's far South Side tells stories of hard work, race and class, and a struggle for justice. And this Labor Day, we commemorated the workers and their stories with the opening of a new visitor center in the iconic clock tower building, where so many men and women once worked and made their voices heard. And we are still working with community partners to realize the vision of bringing all of Pullman back to life.

There are so many other places across the country that risk being lost to development or the passage of time. Together, we can ensure that more of America's history is preserved. To learn more, please visit npca.org/futureparks.

With gratitude, Theresa Pierno President & CEO, NPCA

Editor's Note



LAKE CLARK National Park and Preserve, Alaska.

Catching a Break

It's nice to have kind colleagues. More than nice, really. It makes all the difference in the world at work, where it can separate a good job from a great one.

So I feel very lucky at NPCA. During the last 18 months, it felt like staff members were taking care of each other, showing compassion and patience as the pandemic turned so many of our lives upside down. This was true on a macro level, with leaders taking steps such as instituting no-meetings Fridays and offering additional days off. And it was true on a micro, day-to-day basis. Through the downs and ups (and downs) of pandemic life, I've spoken to my close colleagues as much as anyone outside my immediate family, and I've been so grateful for my co-workers' resilience, dedication and, of course, their kindness.

My colleagues on the magazine staff are stepping up (again) for this issue. I'm writing this as I'm about to embark on a six-week sabbatical, so the small crew is going to guide the Fall issue through the homestretch and send it off to the printer without me. I know I'm leaving you in skilled, trustworthy hands. As usual, you'll be getting fascinating, lively fare in this issue, from Ken Ilgunas' reflection on the summer he spent at Lake Clark National Park and Preserve to a photo essay about the impact of the pandemic on national parks to Nick Lund's travel story about his wintertime adventures in Katahdin Woods and Waters National Monument.

Enjoy, and I'll see you on the other side, when I'll be well rested and ready to get back to the job I love and the colleagues who keep me smiling and sane during good days and challenging ones alike.

Rona Marech
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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 and enhances America's national parks for present and future generations by identifying problems and generating support to resolve them.

EDITORIAL MISSION

National Parks magazine fosters an appreciation for 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 parkprotection 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. National Parks magazine is among a member's chief benefits. Of the \$25 membership dues \$6 covers a one-year subscription to the magazine.

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. Sign up to receive Park Notes, our monthly email newsletter at npca.org/join.

HOW TO DONATE

To donate, please visit 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. On a selective basis, NPCA makes its membership list available to organizations that our members may find of interest. If you would like your name removed from this list, please call us at the number listed above.

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NO TIME FOR TIMED ENTRY

I read about overcrowding in national parks and the proposed solution of timed entry ["Getting Some Distance"]. While it sounds good, it is going to discourage a lot of people from seeing the parks at a time when support is badly needed. If these systems prevent spontaneous park visits or require people

to book an entry every morning while traveling, forget it. Folks have better things to do. And then who is going to support the parks when a future administration proposes to allow nearby oil drilling or timber harvesting? Timed entry could put off a significant number of your supporters. Think about it.

DICK HEWETT

South Hamilton, MA

ANTI-SELFIE

I look forward to receiving National Parks magazine, but that'll change quick with just a few more abhorrent selfie photos ["Heading for the Hills"]. The entire selfie concept is antithetical to everything parks are supposed to embody. These self-absorbed people seem to be everywhere and are always in the way of someone trying to enjoy and appreciate a park. It may be too late to make them go away, but please don't encourage them!

JAY SPERLING

Philomath, OR

Thank you for the article about Golden Gate National Recreation Area ["Heading for the Hills"]. A native San Franciscan, I now live near Sacramento. When I opened the Summer issue of the

magazine and saw my beloved city and bridge, I sat and cried. The park is the pride of the Bay Area. We visited it many times and advocated for its protection, helping to stop the development of a small city on the Marin Headlands and prevent the construction of a freeway on Montara Mountain and another one through San Francisco and portions of the recreation area.

I am so proud to say I was born and raised in San Francisco, and I miss it every day.

KAREN OSGOOD

Citrus Heights, CA

TREASURED MEMORIES

I thoroughly enjoyed the photos of tourists at various national parks in "Tourist Time Capsule." What really brought back fond memories was the picture of

the woman standing on a hill in Glacier National Park, Montana, in 1981. Ten years later, I would be standing on the same hill, in almost the same exact spot, overlooking the Many Glacier Hotel. At the time, I was on a guided tour with my mother and my aunt. They are no longer with me. This photo revived wonderful recollections of that trip and that summer! Thanks for making my day!

BARBARA SULKOWSKI

Bronx. NY

A THANKFUL HUSBAND

I read "Call in the Wild" with a great deal of interest, as my wife was the beneficiary of a rescue in Arches over 20 years ago. We were on a ranger-led hike and were probably the farthest distance from the parking area when my wife tried

to step off of a large rock and lost her balance. I caught her and broke part of her fall, but both of us wound up on the ground. She tried to get up but could not. The ranger got us to a shady place and made sure we had sufficient water. He left us to find a spot where he could get a signal to call for help. It took a while, but help finally arrived. The first person put an Aircast on my wife's leg, which greatly relieved the pain. Then, more people arrived. They tied her onto a litter and carried her out. It was amazing to see how they would pass her from one person to the next, occasionally tipping the litter through narrow passages. By the time we got to the parking lot, it was dark. I took her to the hospital in Moab where it was determined she had fractured her leg.

It was truly a blessing to have such capable, competent and caring people at that most difficult time.

ANDY ZAHR

Chapel Hill, NC

A ROLL OF THE EYES

Thank you for sharing artist Amber Share's posters of rants by park visitors ["Overrated"]. I laughed out loud when I read, "There are bugs and they will bite you on your face," because I could hear my adult niece saying those exact words. Many times, family members have rejected a vacation place because they couldn't get cell or Wi-Fi service. The rest of us roll our eyes and just shake our heads. I love the humor of Share's work and will definitely look for her book when it is published.

JOANNE LOCNIKAR

Seal Beach, CA

I just finished reading "Overrated." As an elderly backpacker, hiker and park visitor, I loved the article and decided to buy the book for my husband's birthday. To all those who take advice from sites such as Tripadvisor: Please stay home so we can enjoy the wonderful scenery and serenity ... without your complaining.

SUSAN KENT

Oriental, NC



DOUBLE DOSE OF MEMORIES

Since I am a native Kansan, I especially enjoyed your Fall 2020 article about Nicodemus National Historic Site ["Promised Land"]. I finally visited Nicodemus in my late 60s, after living near there for the first 18 years of my life. I found the park and the history it preserves to be very interesting. They have done an amazing job preserving the buildings and have a great little visitor center.

In the same issue was the article "Final Words," which I found very moving since my husband lost his battle with Lou Gehrig's disease. We loved traveling and visited many national parks, including Yellowstone. Fortunately, my husband didn't reach the late stages of that awful disease. Mike Yochim's hardfought battle and dedication to his book are to be commended.

PRISCILLA LOPRESTI

Leavenworth, KS

A GRANDFATHER'S LEGACY

Thanks so much for the article on Mother Jones, "Miners' Angel." The stories of the struggles of southern West Virginia coal miners who fueled America's industrial revolution are quickly disappearing. My grandfather, Michael Barna (pictured above) from Certizne, Slovakia, toiled in those mines for decades. Thanks to wage increases pushed by Mother Jones and the United Mine Workers of America, all six of his children graduated from college. Unfortunately, he died of black lung disease at the age of 59.

DAVID BARNA

Springfield, Virginia

The writer is a former chief spokesman for the Park Service.

STILL RELEVANT

I just finished reading the article "Following in Their Footsteps" [Winter 2018] and was so moved that I felt compelled to write to you. I typically read my old magazines while waiting in the dentist's or doctor's office, but I had to read this particular article at home because I kept dissolving into tears. I've always been told that one branch of my family tree is Cherokee from somewhere in Tennessee. The story of these folks riding the Trail of Tears struck very close to home. Thank you for your insight and sensitivity. I wanted you to know that your writing is still moving, relevant and inspiring, even three years later.

SUSAN GROOM

Grant City, MO

Send letters to National Parks Magazine, 777 6th Street NW, Suite 700, Washington, DC 20001-3723. Or email npmag@npca.org. Include your name, city and state. Published letters may be edited for length and clarity.



These sites are sacred spaces that provide healing and sustain life.

NPCA President and CEO Theresa
Pierno supporting restoring protections for three national monuments
in The Washington Post. Interior
Secretary Deb Haaland has urged
President Joe Biden to reinstate
protections slashed under the
Trump administration for Bears
Ears and Grand Staircase-Escalante
national monuments, as well as
Northeast Canyons and Seamounts
Marine National Monument.

People think they're getting nature and beautiful trails, and instead they're inhaling car exhaust for hours and finding trails and facilities overcrowded.

Neal Desai, senior director of field operations for NPCA's Pacific region, as quoted in an article in the Associated Press about the need for reservation systems at national parks such as Yosemite. Various parks across the country are experimenting with timed-entry tickets and other methods to limit crowds in an effort to improve the visitor experience and relieve pressure on park facilities and natural resources.

Speculative uranium mining at this location is a horrible use of public land.

Arizona Senior Program Manager Kevin
Dahl commenting on NPCA's opposition to
a uranium mine near Grand Canyon National
Park in a Center for Biological Diversity press
release. Conservation groups say flooding
in the mine will contaminate the region's
aquifers, threatening the communities and
wildlife of this arid landscape.





Protecting the Homeland

Former Principal Chief James Floyd of the Muscogee (Creek) Nation speaks about his connection to Ocmulgee Mounds National Historical Park and the need to further preserve the site.

Ocmulgee River between Macon and

Hawkinsville, Georgia, a corridor that

includes undeveloped hills,

wetlands and 85,000 acres

When James R. Floyd, then chief of the Muscogee (Creek) Nation, first visited Ocmulgee Mounds in central Georgia, the ancestral homeland of his people, his experience was "almost overwhelming," he said.

"The skies, the land, the river, the mountains," he said of his visit in 2016. "It was like going to a place and feeling it was meant for me."

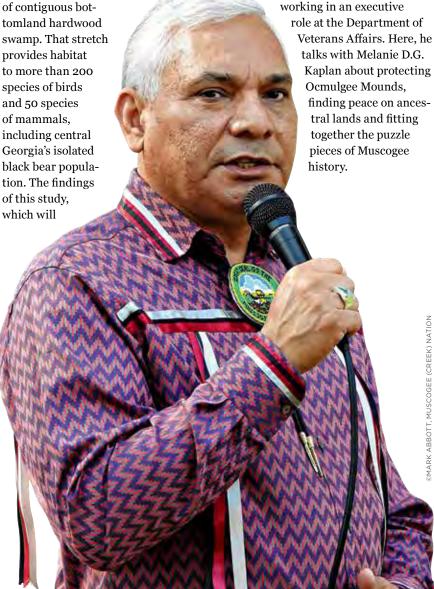
Ocmulgee National Monument was established in 1936, and the site was upgraded to national historical park status in 2019 - thanks in large part to Floyd's advocacy. The land contains earth mounds as high as 55 feet. Some mounds served as tombs, while others were used to support buildings or perform ceremonies. They were built by the people archaeologists call Mississippians, who lived there more than 1,000 years ago. The area was home to many different American Indian cultures during the last 17,000 years and is considered the cradle of the Muscogee (Creek) Nation. Thousands of people come to the park annually for the Ocmulgee Indian Celebration, one of the largest Native American gatherings in the Southeast.

The John D. Dingell, Jr. Conservation, Management, and Recreation Act of 2019, which passed after three unsuccessful iterations of the bill, redesignated the site as a national historical park and quadrupled its size to 3,000 acres; it also authorized a study of a 50-mile section of the

continue until the fall of 2022, could pave the way for an even larger park.

Floyd served as principal chief of the Muscogee (Creek) Nation - a self-governed Native American tribe located in Okmulgee, Oklahoma, and one of the largest federally recognized tribes in the United States - from 2016 to 2020. Previously, he managed the first tribal-owned hospital in the country and worked for a decade at

the Portland Area Indian Health Service in Oregon before working in an executive role at the Department of talks with Melanie D.G. Kaplan about protecting Ocmulgee Mounds, finding peace on ancestral lands and fitting together the puzzle pieces of Muscogee



When was the first time you visited your ancestors' lands?

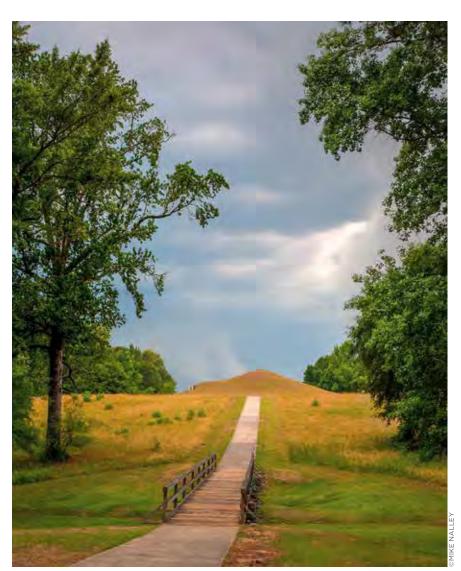
My wife and I went with our parents around 1980 and visited some sites in Florida and Alabama. Muscogee (Creek) people have always been in the Southeast. We engaged with the Spanish, French and English, trading furs, metals and small animals for arms and ammunition. Today, you see the absence of our influence and our culture back there. What happened to the Creek people who disappeared? They didn't disappear. They were forced out [through a series of coerced and brutal relocations to the west by the U.S. government in the 1800s]. The mission now is to communicate that we are not extinct.

What do you remember about your first trip to Ocmulgee Mounds?

It wasn't until I was elected as principal chief — when I felt a strong obligation to preserve and protect — that I took the opportunity to go. I learned about the bill to expand the park that hadn't passed in several sessions of Congress, and it was something I felt drawn to. In 2016, my family was there along with other members of the tribe and employees of the Muscogee Nation. The spirits that exist there from ancient times were so powerful to me, and there was a strong sense of peace and belonging like you needed no introduction.

Tell us more about that feeling, that sense of peace.

Growing up here in Oklahoma, this was home. But where did we come from? It's like puzzle pieces. You read about these different significant places in the East -Ocmulgee Mounds, Okefenokee Swamp,



EARTH LODGE at Ocmulgee Mounds National Historical Park. The clay floor inside the chamber is about 1,000 years old, according to a carbon dating analysis.

Trail of Tears, Fort Benning, Horseshoe Bend in Alabama — and you begin to feel the connection. You feel a sense of peace and attachment that's immediate. We need to put the pieces into place as best we can to form a picture so others can see it as well. When our people are there, they get overwhelmed, knowing their ancestors either traveled those routes or lived in those areas.

When you were principal chief, what role did you play in the expansion of the park?

I took trips to D.C. and tried to keep this in front of congressional members. I coordinated visits from folks at NPCA and in the Georgia area. The tribe would send chartered buses from Oklahoma, and both youth and elders





JAMES R. FLOYD (right) stands near the entrance of Earth Lodge with his son Jacob (left) and his wife, Carol.

would go down and have ceremonies and set up interactive displays for the public, like bow-making and ancient dugout canoes. In 2019, we had the opportunity to purchase and preserve land in the area known as Brown's Mount, which lies in the historic Ocmulgee River corridor where our ancestors lived. [The land was threatened by development, and the purchase was the first reacquisition by the Muscogee of land in their historic homeland in Georgia since the time of Indian Removal in the 1830s.] It's invaluable to the Muscogee people as evidence of the lifestyle of our ancestral people.

Your ancestors lived in Georgia, but you grew up in Oklahoma. What was your family's connection to the land where you were raised?

When I was young, my parents moved back to their hometown in McIntosh County, Oklahoma, and we lived in Eufaula, a very rural area. There was an Army Corps of Engineers project in the '60s to build the largest manmade lake in the state within the Muscogee (Creek) Nation, and it uprooted many Muscogee people from their allotted lands. It erased historic towns and relocated many burial sites. My third greatgrandparents established Fishertown in 1847, and it survived the Civil War, but all traces of its existence were covered over by the lake. I have mixed feelings about it. The lake is important for flood control and tourism, but the town was part of the Creek Nation, and it's not there anymore. I always wondered, Were our people in favor of this? Opposed to it? Did they have a voice?

How much did you learn about vour ancestors as a child?

Growing up, I was inquisitive, and that stayed with me into adulthood. My dad is Creek, and my mom is Creek and Cherokee. I have eight siblings, and my mom taught us about our family history. My mom still volunteers in the school system, helping kids learn to read. She's 93.

Had you ever run for anything before you ran for the office of principal chief of the Muscogee Nation?

I had not. I'm not a politician. My family was basically my campaign team, and we funded our own campaign. For us, it wasn't about money. It was about doing the right thing. My whole career has been in public service. Part of my platform was to protect and preserve our past, and this land in Georgia is





an important part of our history that I'd hate to see disappear. It's a passion we have as a family now. As I get older, this weighs on me. We need to preserve these places because they strengthen our people and give them an anchor knowing this is where we used to be.

You've served on the NPCA **Board of Trustees since April** 2020. What drew you to NPCA and what do you hope to achieve on the board?

I was drawn to NPCA for several reasons, most importantly because of its mission to preserve, protect and expand land in and around national parks throughout the country. I also saw, as a Native American, that I could bring a voice of Native people and their histories into the national parks that are in Indian Country — Ocmulgee Mounds being an outstanding example. I hope my role on the board will also serve to enhance collaboration and participation of tribal governments in the management of national parks.

Secretary of the Interior Deb Haaland is the first Native American to serve as Cabinet secretary. What are the challenges and opportunities she faces in advancing Native American priorities?

In her role, Secretary Haaland has the opportunity to establish policies that reflect the needs of Native people. She faces immense challenges, such as the ability to balance national parks and oil and gas drilling. We hope we can work with her so she can understand the benefits of the park's proposed expansion to tribal members.



EACH SEPTEMBER, the park hosts the Ocmulgee Indian Celebration. From left: Junior Miss Muscogee (Creek) Nation Iesha Phillips, Miss Muscogee (Creek) Nation Amberly Proctor, Floyd and former Superintendent Jim David at the 2017 celebration.

How different is the Native American approach to land?

I believe it is different. For us, the land is more spiritual. The mounds are evidence of our religious ceremonies. The Ocmulgee River basin is being preserved in a way that multiple groups can come into the area and enjoy it. Tourists can come in and fish or hike, and tribal members can visit their ancestral land. I imagine the public learning more about the Muscogee (Creek) people and understanding that we may have left that area, but we didn't voluntarily leave, and we'll continue to be involved. There are a lot of disparate interests in this land, and at this time, I'm fine with that.

This Q&A has been edited for brevity and clarity.

-MELANIE D.G. KAPLAN





Coral Calamity

A disease is wreaking havoc on coral colonies in Dry Tortugas and beyond. But hope is on the horizon.

The May 29 monitoring excursion started like any other for members of Dry Tortugas National Park's Coral Response Team. The sky was clear and bright, the ocean calm. The ambient temperature, a balmy 80 degrees, matched that of the water. With captain Emily Dropiewski at the helm of the park's 25-foot Boston Whaler, they cruised to their first dive site. Much as they had for the last eight months, they strapped on their oxygen tanks, popped in their regulators, stepped

off the boat and swam as deep as 60 feet to inspect the reef. Late in the afternoon, after examining 27 colonies, biological science technician Melissa Heres noticed something that gave her pause. She waved over coral biologist Rachel Johns for a second opinion.

Standing out from the surrounding multi-hued corals was a foreboding blotch. Even to an untrained eye the bone-white lesion would be cause for concern. The team's worst fears had been realized: Stony coral tissue loss disease had arrived in Dry Tortugas. By the time they'd finished surveying the area the following day, the tally of infected colonies had crept up to 11. "It's heartbreaking," said Clayton Pollock, a fisheries biologist at the park.

The outbreak wasn't completely unexpected. Dry Tortugas' coral colonies constitute the western extent of the Florida Reef Tract, a 360-mile boomerang of coral formations that trace the Florida Keys and stretch all the way to the waters north of Biscayne National Park. Since rearing its head offshore of Miami in 2014, stony coral tissue loss disease has spread with alarming speed. Its eventual appearance in the aquamarine

waters of Dry Tortugas seemed a near inevitability.

As soon as the disease was confirmed, park staff literally dove into action, outlining the affected areas in antibiotic paste, like crudely applied caulk. The process is time intensive, requiring scuba gear and lesion-by-lesion application. And the medicine is far from a panacea. It stops an active lesion from inflicting further harm, but it doesn't protect a colony from a new infection and can't reverse existing damage. That said, it's the most effective treatment identified, according to Florida's coral disease response coordinator, Maurizio Martinelli, who called this particular malady "probably the worst coral disease we have ever seen anywhere." It's affected more than 20 of the 40-odd reef-building coral species within the Florida Reef Tract, killing coral reefs that predate the Industrial Revolution, and now extends across the Caribbean, from Belize to Virgin Islands National Park.

Coral reefs, often called the rainforests of the sea, are the workhorses of the ocean. A significant portion of all marine life uses these fantastical underwater habitats either as nurseries or feeding grounds. The reefs develop over thousands of years, starting with a single coral polyp. They grow slowly, layer upon layer, with live coral rooting to the limestone skeletons of past corals. The result is a warren of nooks, crannies and passageways, ideal cover for myriad critters, including eels and lobsters. Reefs also benefit people, buffering coastal areas from powerful storm surges and sustaining livelihoods via fishing and tourism.

Unfortunately, a number of stressors - from warmer, more acidic oceans and pollution to improper boat anchoring and unsustainable fishing — have left many reefs teetering on the brink of collapse. Scientists estimate that 50% of the world's coral reefs have

disappeared in the last 30 years alone, and the future looks just as bleak. Corals may completely die out in the next 50 to 100 years if we don't get a handle on climate change, said Melissa Abdo, director of NPCA's Sun Coast region. "That's a horrible, dismal fact," she said. "Immediate climate action is needed if our grandkids are to be able to swim amidst coral reefs, as I did as a kid."

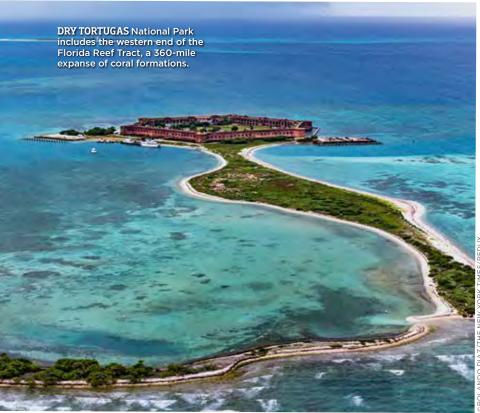
Because the Florida Reef Tract spans many jurisdictions, including national parks, national marine sanctuaries and state waters, more than 60 groups and agencies are working together to address the threat of the stony coral tissue loss disease there. The response effort consists of eight working groups, all tackling the problem from different angles. Together, scientists, citizens,

What You Can Do to Protect Corals

- Boat, fish and recreate responsibly. Know the regulations and stay abreast of best practices, such as avoiding contact with coral and cleaning your snorkel, dive and boat gear between uses.
- Be an informed consumer. Consider mineral-based, reef-safe sunscreens, minimize purchases with plastic packaging and opt for sustainably caught fish.
- Conserve water. The adage that all drains lead to the ocean still applies, even if you live hundreds of miles away. Doing your part to minimize wastewater and limit pollution in your runoff will ultimately benefit coral reefs. (Martinelli suggests investing in lowflow showerheads, turning off the tap when you brush your teeth, landscaping with native shrubs, flowers and trees, and applying pesticides and fertilizers judiciously. Abdo goes one step further and proposes forgoing lawn chemicals altogether as directed by many municipalities.)
- Lower your carbon footprint. As oceans absorb more atmospheric carbon dioxide, the water becomes more acidic, which impedes coral's ability to grow the skeletons that form the foundation of healthy reefs.
- Support NPCA's campaign to establish a marine reserve at Biscayne National Park, where decades of over-harvesting have decimated the fish populations. NPCA staff have worked for the last 20 years to designate a portion (just 6%) of Biscayne's waters as off-limits to fishing. Reserves are a proven way to boost the health of marine ecosystems, allowing both fish and coral species to rebound. Though the Park Service decided years ago to establish the reserve, it has yet to implement it.







government agencies, universities and nonprofits are researching the disease and its treatments, educating boaters and divers, increasing monitoring, and conducting hands-on restoration. Aquariums across 14 states also play a role, housing genetically diverse colonies from Biscayne, Dry Tortugas and elsewhere, in preparation for the day samples can be transplanted back into the wild.

Already, partner groups have returned nearly 6,000 coral fragments to locations where the disease has passed its peak in a massive experiment overseen by the Florida Fish and Wildlife Conservation Commission. "It's a very ambitious project," said Marina Garmendia, who performs data collection for four of the 24 transplant sites in her role as graduate research assistant at Nova Southeastern University. Researchers affixed five diminutive discs of knobby brain, mountainous star or great star coral to more than 1,100

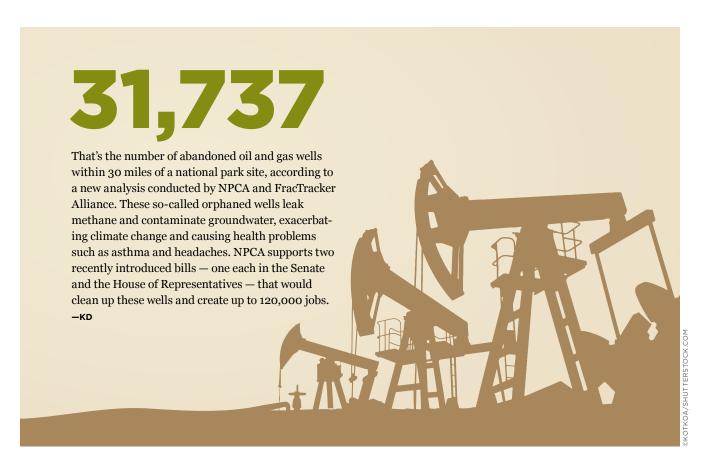
concrete bases placed throughout the Florida Reef Tract. The hope is that each base's corals, which Garmendia said currently resemble "very small cookies," will fuse together to form new colonies. But that will take years. In the near term, information gleaned during monthly monitoring will guide future restoration decisions.

Martinelli said the collaborative nature of this disease response effort gives him hope. "It's not just a single group that's trying to do this," he said. "It's so many people across the state who have come together to say, 'We're going to stand up against this,' in a way that we've never done before."

The outlook might be guarded, but Martinelli is convinced the Florida Reef Tract will survive. "This disease is not the end of the reef as we know it," he said. "But it is going to take a lot of time and energy and effort."

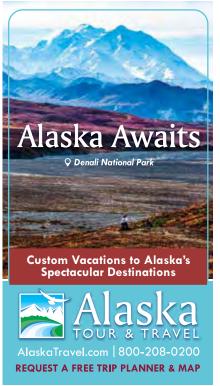
-KATHERINE DEGROFF













Whales of the Deep

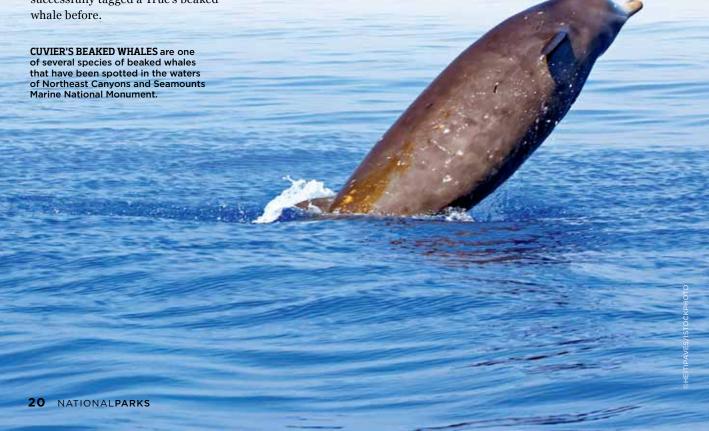
Scientists are probing the depths of Northeast Canyons and Seamounts Marine National Monument to learn more about elusive beaked whales.

The small boat maneuvered within yards of a rare True's beaked whale in the waters near Northeast Canyons and Seamounts Marine National Monument. The researchers held their breath as they tried to attach a digital tag to the animal's back with a suction cup. Beaked whales seldom come to the surface for long, so the team's window of opportunity was fleeting, and they had already made several attempts. If the whale dived again, they might not get another chance. Extending a long pole over the whale, they finally slapped the tag on the animal's back, and the tag held tight. The team erupted in cheers - no one had ever successfully tagged a True's beaked

"We had all worked so hard to get to that moment, and it was a huge accomplishment," said Danielle Cholewiak, a research ecologist at the Northeast Fisheries Science Center and the leader of the summer 2018 expedition. "For the first time, we were going to have a little more insight into the deep, underwater behavior of this elusive species."

Beaked whales are among the most mysterious marine mammals in the world. Because they are rarely seen and disappear underwater for long stretches of time, little is known about their behavior and life cycle. What are they feeding on? Why do they seem to prefer deep canyons? Do they travel widely or remain in one area for most of the year? Where do they reproduce? What is their social structure? The marine national monument 130 miles off the coast of Cape Cod, Massachusetts, is one of the few known places that is home to several beaked whale species, and scientists conducting research there are hoping to answer some of these questions about the unfamiliar cetaceans.

Beaked whales have a distinct snout like that of a dolphin, and males can be identified by two tusklike teeth. The whales range in size from about 15 to 40 feet long and can weigh more than 12 tons. More than 20 species traverse the world's oceans, and they prefer deep, offshore waters — unlike most of the best-known whale species, which spend





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much of their lives on the continental shelf. Most beaked whales are also shy and difficult to approach. Many species look so similar that even scientists find it challenging to tell them apart, and a couple of species are known only from dead specimens that have washed ashore.

"Often the best way to identify a dead one on the beach is to cut off the head, freeze it and send it to an expert to make the ID from the clean skull," said Robert Kenney, a retired marine mammal researcher at the University of Rhode Island.

Three species of beaked whales - True's, Cuvier's and Sowerby's have been observed in the Northeast Canyons monument, a 4,900-squaremile protected area established by President Barack Obama in 2016 for its diverse habitats and abundant marine life, which includes billfish, tuna, sharks

BRISINGID SEA STAR on a small bubblegum coral in Hydrographer Canvon near the marine national monument.



Northeast Canyons and Seamounts Marine National Monument is "one of the least humanimpacted areas of the East Coast."

and more than 50 species of corals. The only marine national monument in the Atlantic Ocean, it features four underwater mountains, or seamounts, and three 1-mile-deep canyons at the edge of the continental shelf. The topography facilitates upwelling, a process that brings nutrient-rich cold water to the surface and sustains numerous species, from cod to North Atlantic right whales.

The monument is "one of the least human-impacted areas of the East Coast," said marine ecologist Peter Auster from the Mystic Aquarium and University of Connecticut, who started studying the area in 1984.

> In 2020, President Donald Trump signed a proclamation that lifted restrictions on commercial fishing in the monument. NPCA has been advocating for the restoration of the monument's protections. and the Biden

administration is reviewing the legality of the proclamation.

Since confirming in 2016 that True's beaked whales visit the monument area, Cholewiak has spent two to four weeks each summer or fall studying the whales at sea. During every expedition, she and her colleagues scan the surface of the water with supersized binoculars mounted on the ship to locate whales up to 7 miles away. Because the animals remain submerged for extended periods, the researchers also use a variety of acoustic tools to detect them and learn about their underwater movement patterns. Cholewiak's research vessel tows an array of up to eight hydrophones, and the team laid acoustic recorders on the seafloor, for instance, to listen for the unique echolocation sounds the beaked whales make as they forage for squid and other prey.

"It's above our hearing range, so we don't actually hear it ourselves, but we watch for their signals to come in on a computer screen," Cholewiak said.

In addition to Cholewiak and her team, researchers from the New



England Aquarium in Boston conduct several aerial surveys in the monument each year to count marine mammals and other wildlife visible at the surface. They fly six transects over the monument's canyons in a twin-engine plane with two observers aboard, and when they spot marine mammals such as beaked whales, they depart from their route to get a closer look.

"When we see some, we wonder how many we flew past that were down on a dive when we flew over," said Orla O'Brien, assistant scientist at the aquarium's Anderson Cabot Center for Ocean Life. "They're such a cryptic species that every sighting is important."

Based on five years of survey data, Cuvier's and Sowerby's beaked whales appear to be more common in the monument than True's, though the aquarium team has observed all three species swimming in the canyon area in

Cholewiak's research group, which is affiliated with the National Oceanic and Atmospheric Administration, is slowly learning details of True's beaked whales' behavior. The team was the first to distinguish the echolocation sounds made by True's (pictured below) from those of the closely related Gervais' beaked whale, for example. And thanks to the

CHRISTOPHER TREMBLAY using "big eye" binoculars to look for whales from the top deck of a research vessel.

data collected from the tagged whale, they finally have an idea of how long and how deep the whales can dive. The tag remained attached to the whale for 13 hours before falling off and floating to the surface. Once it was retrieved, it indicated that the whale had dived nine times to a depth of about 3,200 feet and that each dive lasted between 25 and 40 minutes.

Data from just one whale isn't enough to make generalizations about the species, however, so Cholewiak and her team are continuing their efforts to monitor beaked whales. The pandemic halted

progress in 2020, but the researchers were planning to return to the monument this September. One of their longer-term goals is to tag both True's and Cuvier's beaked whales to track their movements and interactions to better understand how the two species may be sharing or partitioning their habitat.

"I feel really excited and energized by this work," she said. "We still have a lot to learn, but we're definitely learning something new about beaked whales every time we get out there."

TODD MCLEISH is a freelance science writer and the author of four books about rare wildlife, including "Return of the Sea Otter" and "Narwhals: Arctic Whales in a Melting World."



The Wild Road

Brent Steury and his collaborators have had a field day at an unlikely biodiversity hotspot: a park along a highway outside the nation's capital where they have discovered dozens of new species.

NE DAY IN May of 2019, a svelte, black beetle, less than a quarter of an inch long, was flying over a clearing that is part of the George Washington Memorial Parkway in Northern Virginia. It is hardly the most scenic spot in the National Park System — a power line towers overheard, and the sprawling CIA headquarters sit across the road but in spring, the meadow is covered with common milkweed, hemp dogbane and goldenrod.

CANTHARIS SHERALDI, a kind of soldier beetle, is one of dozens of new species that have been discovered at George Washington Memorial Parkway.

It is a haven for critters of all kinds, so that's where Park Service biologist Brent Steury had set up his trap, a tent-like contraption designed to catch flying insects. It worked like a charm, and the beetle, funneled toward a receptacle filled with ethanol, met its demise along with other beetles, flies and bees. Steury collected the mixture at the end of that month. "We call this bug soup," he said.

Several months would pass before Jerry Taylor, a volunteer sifting through the bug soup, picked out the beetle and other similar ones for further examination. Steury quickly pegged it as a soldier beetle, but it didn't seem to belong to any of the 41 other soldier beetle species documented in George Washington Memorial Parkway, a patchwork of Park Service land along the historic highway. "He came in and said, 'I think we got a new one!" said Taylor, a retired medical school lecturer with a doctorate in microbiology who calls the volunteer gig "the best job I've ever had."

Steury knew the species was a new one to the park, but to figure out what it was, he would have to go through a long process of reviewing existing literature, comparing his specimen to relevant ones in museum collections and corresponding with soldier beetle experts far and wide. He first determined that the beetle was not a documented native species, but he suspected it might be a nonnative one. Similar species existed in Europe and Asia, so Steury reached out to entomologists there. There was no match in Europe or China, and Steury received the same feedback from Japan. "It's a weird feeling," Steury said. "You're thinking, 'How can this be? What am I missing?' And then slowly you convince yourself, this really is a



BRENT STEURY surveying insects at Turkey Run Park. "He's a naturalist at heart," one of his colleagues said of Steury, "He's looked at places where very few others have looked."

species without a name."

So Steury gave it one. In a peerreviewed paper published last September, he formally described Cantharis sheraldi, named after Jim Sherald, a former Park Service colleague. The paper was a highlight in an otherwise bleak year for Taylor. "When I got the publication, I said, 'This picture is going in my Christmas letter!" she said.

Discovering a new species might seem like a rare thrill, but it's anything but at George Washington Memorial Parkway. So far, Steury and his collaborators have discovered dozens of species previously unknown to the world, including 37 springtails (tiny six-legged arthropods), perhaps 30 roundworms,

13 mites, eight moths, eight flies, seven beetles, one sawfly, one small crustacean and one millipede. (Many of these haven't been formally named yet.) The new species represent only a fraction of the additions to a park species checklist that has grown substantially since Steury started working at the park 17 years ago and now includes nearly 6,500 species, from river otter to jack-o'-lantern mushroom.

"Our ultimate goal here is to document as many species as possible," Steury said. "This place is just remarkable for the number of species that it holds."

George Washington Memorial Parkway runs about 25 miles

along the Potomac River, from Turkey Run Park in the north to Mount Vernon in the south. The parkway is used by thousands of Washington, D.C.-area commuters every day, but the park itself includes a number of historic and natural sites on either side of the road that welcome upward of 7 million visitors in a typical year. One of the most spectacular features of the park is the Potomac Gorge. Located on a fall line, the gorge formed at the junction of the Piedmont Plateau and the Atlantic coastal plains, and plant species from both regions can be found at some of the park's units, such as Great Falls Park and Turkey Run Park. In addition, the gorge includes a range of ecosystems,

from floodplain forests to bedrock terraces and tidal wetlands, and the river carries seeds down from the Appalachian Mountains. The resulting flora supports a vast array of creatures large and small, making the gorge one of the most biodiverse areas in the National Park System.

For more than a century, scientists have known of the gorge's extraordinary diversity. In the early 20th century, they would hop on the trolley in Georgetown and get off at a stop along the river to botanize, Steury said. Plummers Island, just across the river from Turkey Run (and part of Chesapeake and Ohio Canal National Historical Park), is home to the Washington Biologists' Field Club and is known informally as the most studied island in North America.

When Steury arrived at George Washington Memorial Parkway, he continued the area's long tradition of biological fieldwork. An experienced botanist, he traces his fascination with the natural world to his childhood days. Once on vacation in Tennessee, he and his brothers filled an entire room with butterflies they caught. (The butterflies escaped.) That passion never left him. Now 60 years old, he's at times giggly when he recounts the excitement of a discovery, somber when he discusses development threats to the park, or reverential when he pulls out trays of impeccably displayed moths from the park's collections.

"He's a naturalist at heart," said Megan Nortrup, an information sharing specialist for the Park Service's D.C. region. "He's looked at places where very few others have looked."

Relying on his botany background, Steury first conducted a thorough inventory of the park's flora and documented more than 1,300 species of plants, many of them rare or never found previously

"Our ultimate goal here is to document as many species as possible."

in Virginia. He then moved on to snails and beetles but has inventoried species in many groups of animals, from fish to flies and worms. In 2011, the late Oliver Flint Jr., a world expert on caddisflies, suspected a new species might reside in the park, so he asked Steury if he could come out one night and set up some sheets in hopes of catching the caddisflies in question. "The very first night we go out there, we put out the sheet, and there they were," said Steury, referring to representatives of the caddisfly Flint would later name Neophylax virginica. "And that was our very first new species."

In many cases, species within a family exhibit the smallest of differences, so relying on the expertise of specialists is crucial. For a recent paper describing four new species of tumbling flower beetles discovered in the park, Steury teamed up with Warren Steiner, an entomologist and research collaborator at the Smithsonian Institution. Still, distinguishing the newcomers from known species was an uphill task. "I'll go ahead and say it, 'They all look alike to me," Steiner said.

Steury is also grateful for the support of his Park Service colleagues. That's why he named two of his five recent beetle discoveries after Sherald and Stephen Syphax, another Park Service colleague. (The other three were named respectively after Virginia, the memorial parkway and the Wimbledon tournament because that beetle's front legs sort of resemble tennis rackets.) Sherald said the honor was "far more than I ever deserved," and he was able to get a measure of his newfound celebrity when he went to a doctor's appointment in Alexandria after the local paper ran a

story about the soldier beetle discovery. "She said, 'Are you the one the beetle was named for?" he said.

Sherald said Steury's work is all the more important because several of the park's rare species are at risk. The potential widening of a major nearby freeway could affect the park substantially. (NPCA strongly opposes the project and has called on the Maryland Department of Transportation to drop it in favor of sustainable alternative solutions to the region's traffic problems.) Separately, a proposed paved bike path across the very meadow where Cantharis sheraldi was discovered could threaten that site. "Many of the

things that Brent and others are looking at could disappear, and we wouldn't know it," Sherald said.

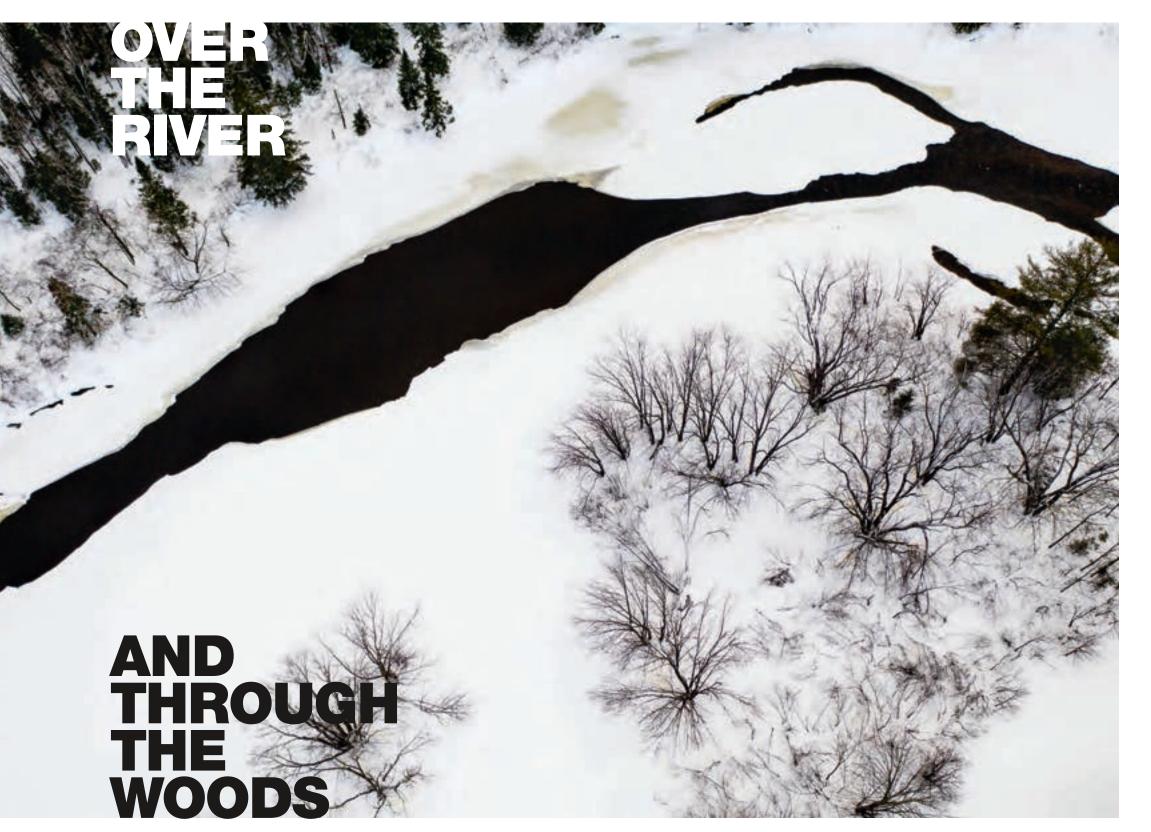
Steury has his own sense of urgency as he plans to retire in a few years. He has authored or contributed to 60 scientific papers, and three are due for publication just this month. Many of the new species of roundworms haven't been formally described, and there are entire categories of organisms, such as lichens, that have barely been examined. And there could still be some unknown beetles, moths or caddisflies out there.

"So many insects, and so little time!" he said. "There will be more new species awaiting to be discovered after I'm not able to discover them anymore." NP

NICOLAS BRULLIARD is senior editor of National Parks magazine.

POTOMAC GORGE from Great Falls Park. Located at the junction of the Piedmont Plateau and the Atlantic coastal plains, the gorge is home to extraordinary biodiversity.





THE EAST BRANCH of the Penobscot River in Katahdin Woods and Waters National Monument.

A wintry return to Katahdin Woods and Waters National Monument.

n that moment, we regretted taking the minivan. But there we were, anxiously plowing through a foot of unexpected snow on an unpaved road in northern Maine, hoping our lumbering ride wouldn't get stuck. I hit the button to adjust the lumbar support in the front passenger seat and tried to relax as fresh powder blasted up over the roof and we drifted around corners as if we were in a suburban "Fast & Furious" movie.

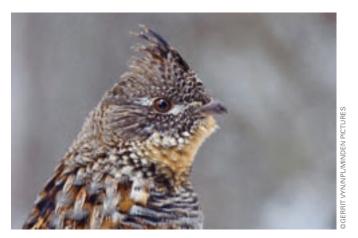
The late January trip had been thrown together at the last minute, but when your spouse graciously agrees to watch your 3-year-old so you can hang out with buddies in a

national park, you go and go quickly, with gratitude. It was not hard to convince Michael and Ed, fellow birders and fathers, to come along on a weekend getaway to Katahdin Woods and Waters National Monument. It had been a long, cold Maine winter on top of a long pandemic lockdown, and we were eager for a break, no matter how haphazardly pulled together.

We were nearing our destination when we careened around a bend in the road and saw a massive plow truck headed straight for us. I gasped and dug my fingers into the leather-trimmed armrests, bracing for impact, but Michael smoothly slid the minivan at full speed to the right, missing the huge truck by what felt like millimeters.

By Nick Lund • Photography by Jerry Monkman







Ed and I shrieked with relief, but Michael was blasé. "Don't

worry," he said. "She's got snow tires."

Rattled but alive, we pulled into Bowlin Camps Lodge, which sits just across the East Branch of the Penobscot River from Katahdin Woods and Waters. It would be Michael and Ed's first time in the monument but not mine: In 2012, as an NPCA staff member, I had the privilege of working on the campaign to transfer what was then a massive expanse of privately owned forest and waterways to the public. I moved on to other projects at NPCA but celebrated when President Barack Obama established the monument in 2016. A few years later, I moved back to my beloved home state to work for Maine Audubon. Despite my newfound proximity to the park, my spare time was occupied by my family, and I hadn't been able to return until this spur-of-the-moment weekend.

Our plan, to the extent that we had one, was to see as much of the park as we could in a couple of short days. I was curious about what the park was like in the winter and how it had developed in the eight years since I had been there. We had a partial answer to the first question when we arrived: The park in winter was very cold, with temperatures lingering a few degrees below zero and forecasted to stay that way for the weekend. But we shrugged it off and settled into the 1895 Cabin, named for the year in which it was built. It was rustic in exactly the way a Maine cabin should be, with gas lights and a workhorse wood stove. We were in high spirits — still giddy from our near-collision and grateful to have a break from our families and from worries about the pandemic. We cooked dinner and sat by the fire and toasted our loved ones back at home. Then we toasted some other things and toasted some more and talked and laughed until it was very late and time to go to bed.

he remarkable origin story of the designation of Katahdin Woods and Waters National Monument begins with Roxanne Quimby, who moved to rural Maine in her 20s and turned a business selling beeswax candles at local fairs into the huge Burt's Bees natural cosmetics company and later decided to pivot away from business and into philanthropy. Over time, she bought over 120,000 acres of land across Maine, purchased at market prices from willing sellers, and set the ambitious goal of turning a massive chunk of it, about 87,000 acres, into a national park. But giving land to the public wasn't so simple.

The timber industry wasn't keen on the idea of conserving more parkland, and some northern Mainers were resistant to the idea of a greater federal presence in the area. Quimby was an easy target for that animosity — her politics and character came under attack — and no one in Maine's congressional delegation would introduce legislation to create the park. But there was support, too, from Mainers who wanted to both protect the state's woods and create an anchor for outdoor jobs in the region. Quimby and her son, Lucas St. Clair, along with advocates from NPCA and other state and national conservation organizations, pressed on, and just a day before the 100th anniversary of the National Park Service in 2016, Obama exercised his authority under the Antiquities Act to establish the monument.

Once the controversy and hubbub around creating the park

THE INTERIOR of a cabin at Bowlin Camps Lodge just outside the park (far left). Left, top: Male ruffed grouse. Left, bottom: Northern flicker.

died down, people could hop on I-95 and see for themselves what lay at the center of the struggle. Katahdin Woods and Waters sits near the heart of Maine's North Woods, a mostly unbroken carpet of pine and hardwood trees that is the largest contiguous forest block east of the Mississippi River. The monument's deep, dark forests are sprinkled with bogs and wetlands and split by three sinewy watercourses — the Seboeis River, the East Branch of the Penobscot and the Wassataquoik Stream — which converge in the southern end of the park, then barrel toward the sea. The Wassataquoik originates in Baxter State Park, the monument's next-door neighbor and home of the tallest mountain in the state, Mount Katahdin.

The Wabanaki people, who have inhabited these lands for centuries, long knew the area east of the base of the mountain as a haven for wildlife. ("Wassataquoik" is a Wabanaki word roughly meaning "a stream to spear fish.") Atlantic salmon, brook trout, black bear, moose, wolf, white-tailed deer, caribou, bobcat, Canada lynx, snowshoe hare, North American beaver and hundreds of species of birds thrived there. The European settlers who displaced the Wabanaki hunted the wildlife (to extinction in some cases) and built logging roads to support a lumber industry that continues today. Timber companies still own a majority of Maine's North Woods, typically allowing — but never guaranteeing — public access. The monument and Baxter State Park exist to ensure that at least part of these woods remains open to the public.

e decided to spend the first day of our winter-bird-dad odyssey hiking and snowshoeing north along the East Branch but were challenged from the start. It was really cold. The morning thermometer read minus 3, cold enough that prolonged exposure could lead to frostbite. Michael, who always runs cold, had brought along a whole box of HotHands hand warmers and stuffed the little white packs into every skin-adjacent spot he could, from his socks to his pockets. He shoved two in each glove. But his hands and feet were freezing before we even stepped outside, and the warmers weren't helping enough. We weren't sure what to do — cold is a real danger, especially if you're miles from help with no cell service — but Michael didn't want to hold us back. He decided that his body might warm up after some walking, so apprehensive but excited, we headed toward the river.

We were looking for birds and had immediate luck at Bow-







WINTER VISITORS to Katahdin Woods and Waters National Monument can explore the park through a range of activities such as snowmobiling (left, top), cross-country skiing and camping (above), and snowshoeing (right).

lin Bridge, a bouncy wooden suspension bridge that spans the East Branch and connects Bowlin Camps with the monument. Overhead, we heard the rollicking jip-jip-jip-jip! of a flock of red crossbills. These hearty finches, their mandibles oddly crossed to help them pry open pine cones, were a "life bird" for Michael (a species he had never seen before), and just like that he was feeling a little warmer. Below us, the clear water flowed thick with ice chunks, like a 7-Eleven slushie.

We crossed to the monument side, and the woods engulfed us; after just a few steps, we could no longer see the cabins or hear the river. Almost immediately, we spied another good bird, this one not flying overhead but exploding from the snow in a fury of wings and feathers: a ruffed grouse. These woods are covered with the chunky, chicken-sized birds, named for the tufts of neck feathers displayed during courtship. Ruffed grouse often perch in trees once they're flushed, and after our hearts stopped rac-

ing, we tracked the bird to a small pine, where it was sitting at eye level. We crept close enough to see its pectinations, small, fleshy fingers that grow from the birds' toes in winter to increase the surface area of their feet and, like snowshoes, help them stay atop the drifts.

We continued on for several hours in our manmade snowshoes, over and under fallen trees and snowy boughs. The forest had a pleasantly episodic feel: We'd push through a tight thicket of spruce and find ourselves in an open grove of birch and aspen, which would lead into a disorderly stand of white pine, and so on. Our path generally followed the river upstream, though we'd only occasionally spot it during a break in the forest. The exercise and sun had warmed us all to a tolerable level, and our steady footsteps eased us into a state of meditation. It was just us and the woods — no other hikers, no airplanes overhead, no barking dogs, no distractions. I had walked this same trail back in the

summer of 2012, but the experience was completely different. In that season, you are constantly alert to the sensations of the woods — birdsong and buzzing insects and dappled light and swaying leaves. In winter, the stillness made us feel as if we were hiking in a kind of frozen wilderness diorama. We had walked for several miles, hardly speaking, before we thought to check the time. It was almost noon already, and we had more park to explore, so we followed our own tracks back to Bowlin.

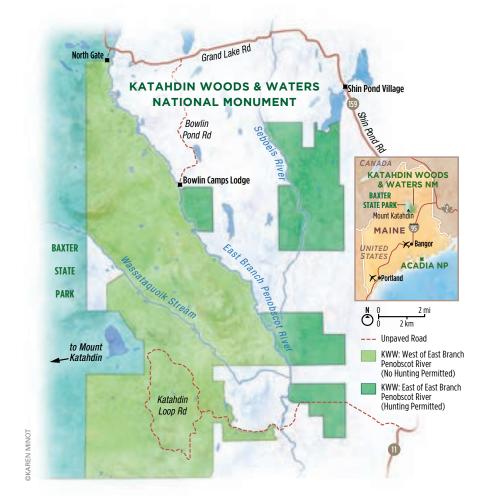
After lunch we drove to the northern entrance, just south of Grand Lake Matagamon, and encountered some new wildlife: people. After a few hours of hiking in the cold we were feeling pretty proud of our survival skills, but now we were faced with a parking lot full of cross-country skiers and snowshoers much braver than we were. We heard one such skier before we saw her. Sarah Hunter was just gliding out of the woods hooting with joy at completing a 15-mile round-trip camping trip with friends to the Grand Pitch Lean-to, an exposed, first-come, first-served accommodation along the East Branch. Sleeping outside on a

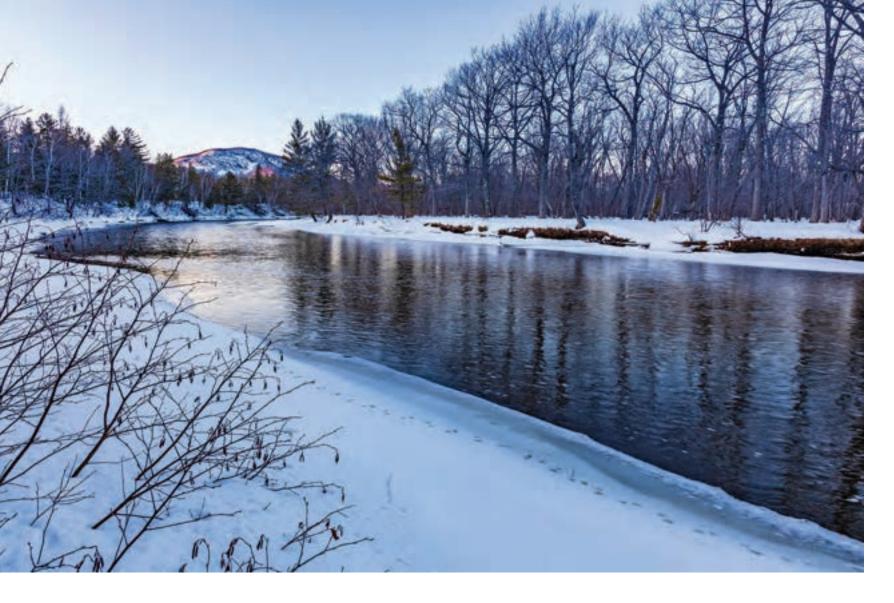
weekend with temperatures dipping to double digits below zero sounded, frankly, insane, but she was beaming. "We brought an ax, and we were able to make a hole in the ice near the shore — a nice, clean water source," she told us. "I chose this area for its remoteness and beauty and was not disappointed."

Energized by the excitement at Matagamon, we snowshoed down along the river, hoping for more birds. The forest here was studded with impressively tall oaks and white pines. We scrambled down the steep banks to the river's edge, scanning the open skies for ravens or eagles, but didn't find any and instead watched ice chunks tumble and roll downstream. Late afternoon is always a low time for bird activity, and we only saw a handful of other species. Soft thumpings betrayed the presence of both hairy and downy woodpeckers pecking for grubs under the bark of dead trees. A chattering flock of black-capped chickadees, squeaking brown creepers and honking red-breasted nuthatches passed through the branches like a gang of unruly kids through a library. We packed up and headed back to our cabin as dusk fell. Tomorrow would be a completely novel kind of winter challenge.

hether snowmobiling would be allowed was a point of heated public debate in the lead-up to the creation of the park. The activity is a favorite pastime in Maine, which boasts 14,000 miles of trails, including the Interconnected Trail System, an extensive network that runs from southern Maine all the way to the Canadian border. But snowmobiling has long been controversial in national parks, as critics say the noisy machines are incompatible with the natural settings or that riders too often venture off the trails into restricted areas.

A compromise of sorts was reached by the time Katahdin Woods and Waters was designated: Snowmobiling would be allowed on parcels east of the East Branch of the Penobscot River and, except for one small stretch, prohibited west of the river. The resulting 22 miles of trails in the monument ended up being a major draw: Park Superintendent Tim Hudson estimates that





BILLFISH MOUNTAIN and the East Branch of the Penobscot River. In winter, the park is "a kind of frozen wilderness diorama," the author writes.

as many as 15,000 snowmobilers ride through the park each winter (on marked trails only, he assured me, as the forest is too dense for going off-trail), compared

with fewer than a thousand cross-country skiers.

I'm well aware of the prevailing stereotypes at work in northern Maine — the very stereotypes that almost prevented the park from coming into existence: The Carhartt-wearing hunter versus the North Face-clad skier. Pickup trucks versus Subarus. The snowmobiler versus the hiker, or, you know, the birder. I hate these caricatures, and I also hate that I sometimes sense that I'm reinforcing them. As in: Though I've lived in Maine most of my life, I had never been on a snowmobile. Neither had Ed nor Michael. We decided it wouldn't be a true Maine winter experience without some time on a sled. And I was eager to challenge the stereotypes. After all, environmentalists and snowmobile enthusiasts are both out there in nature, enduring the cold, and spending time with friends and family. Wasn't there as much that united these groups as separated them?

t was 6 below zero on Sunday morning, even colder than the day before. At Shin Pond Village, a family-run outfit with all-terrain vehicle and snowmobile rentals, cottages, and camping, we were fitted with helmets and extra-thick gloves, and then led outside to our snowmobiles by Blaine King, the son of the owners. I wasn't sure what to expect and was unprepared for the luxury of our sleds: brand-new 2021 Polaris 650 Indy VR1s, with GPS navigation screens and heated handlebars. "You know, we've never ridden these before," I said. "Are you sure you want to give us these nice ones?"

He laughed and assured us we'd be fine, and after a brief explanation of the features of the snowmobile — "Too brief?" we said in glances to each other — King sent us on our way. Moments later we were bombing along the narrow trails behind the store, on our way to the Interconnected Trail System. The speed and easy power were incredible; with just a slight squeeze of my thumb on the throttle, I could push the sled to 40, 50 mph (which is allowed outside the park). I'd never experienced the winter like this, and I wasn't cold at all — though it may have just been the adrenaline at work.

There were lots of others on the trail, enjoying themselves.

TRAVEL ESSENTIALS

Winter is a rewarding time to visit Katahdin Woods and Waters, but preparation is key. Some parts of the park, such as the popular Katahdin Loop Road, close in late fall. The Patten Lumbermen's Museum, which is located outside the monument but has a Park Service information desk, also shuts down for the winter. Call in advance to get a handle on what's open and what conditions to expect. You should also give some thought to what kind of accommodations you'd prefer, whether it's a snowmobile-oriented place such as Bowlin Camps and Shin Pond Village or a cross-country ski-oriented spot such as the Mt. Chase Lodge, or — for the truly adventurous — winter camping in the park. Overnight parking permits are required for stays at most locations in the park, and reservations are needed for bunk space in community huts at Haskell Hut and Big Spring Brook Hut. Wherever you stay, watch the weather carefully and bring warm layers.

Our time in the park had been marked by solitude, but now we were surrounded by packs of friends and families joking around at the gas pumps or riding single file through the woods. On the trail, we discovered a friendly communications system to help groups pass each other safely. The lead rider in a group would hold up fingers indicating how many others were behind him, and the trailing rider would hold a fist to indicate the end of the group. It took us newbies a while to catch

on, and so the first few times we encountered these signals, we just waved back, obliviously.

We saw the same kind of enthusiasm in snowmobilers on the trail that we had seen in skiers like Sarah Hunter at Matagamon the day before. I'm not sure I found any answers to the question of how to break down Maine's entrenched stereotypes, but I was proud that the monument provided a place for different kinds of people to experience similar joy.

Still, we bird dads were out of our element. We were unused to our new helmets, and Ed's and my visors fogged up and froze solid from the inside. We realized our lack of visibility was a problem when, at one point along the trail, a pickup truck passed us in the other direction, the driver giving us confused looks: We had missed a trail sign and accidentally turned onto an actual road. We eventually got back on track and decided to head back to Shin Pond to try to fix our visors. Michael and I were in front, and we stopped at a trail intersection to wait for Ed. A few minutes turned into 10, and we were getting nervous. I turned around to look for Ed, hoping he hadn't blindly collided with another rider. I finally found him shakily inching his way up the trail. Coming around a tight corner he had mistaken the gas for the brake and shot off the trail and

into the woods, he said, flying between two trees and slamming into a snowbank. A passing family of snowmobilers pulled him to safety, unharmed and without a scratch on him or his sled. He was grateful, but ready to be done with these machines.

We were all ready. The exhilaration of a guys' weekend had faded a bit, and we were starting to really miss our families. Maybe it was seeing all the other families on the trail, or maybe it was just the relentless, numbing cold, but nothing sounded better at that moment than a hug from my wife and son. Our adventure was coming to an end.

Back at Shin Pond we returned our sleds, slid into our plush minivan and took stock of our last-minute weekend. In just two days, we had hiked 10 miles through breathtaking woods, survived 1.5 near-death experiences, seen 10 species of birds (and one lifer for Michael), braved freezing temperatures, hit 50 mph on a snow-mobile and sampled several types of beer around a toasty wood stove. Ed and Michael had ventured into a part of Maine that they'd never seen before, and I'd returned to one I knew years ago but was now experiencing in a completely new way. We vowed that we'd come back in the summer, when we could leave our handwarmers behind. Then we peeled off our wet socks, cranked up the heat and started heading south toward our families.

NICK LUND is a conservationist and nature writer. He is the author of several forthcoming books, including the American Birding Association Field Guide to the Birds of Maine (2022) and "The Ultimate Biography of Earth" (2022). His writing on birds and nature has appeared in Audubon magazine, Slate.com, The Washington Post, The Maine Sportsman, The Portland Phoenix and Down East magazine, among others.

JERRY MONKMAN is a conservation filmmaker and photographer based in Portsmouth, New Hampshire. He has photographed in Maine's Katahdin region for 30 years.



DIPS & SPIKES

Visitation to national parks and their gateway communities typically ebbs and flows with the seasons. Last year, it tumbled off a cliff in early spring when 66 parks shut their gates for two months or more. Eerie images of empty parking lots and trails came out of Yosemite National Park (previous pages), and the media shared stories of shuttered build-

ings and derailed family vacations.

Most national park sites eventually reopened, but more than a dozen remained closed as the ball dropped on a new year. In the end, 2020's total park visitation was the second lowest in 40 years, which led to reduced park fee revenue and threatened the economies of nearby communities.

That's not the full story. Once parks — or parts of them — reopened, people came in droves, desperate for a change

of scenery and a reprieve from quarantining. Though more remote parks, such as those in Alaska, remained notably devoid of vacationers, at least a dozen parks rebounded sufficiently to break individual visitation records in 2020. Arches National Park enforced daily closures when parking lots overflowed (below), while other parks, such as Rocky Mountain, opted for timedentry or reservation systems to control the crowds.





SAFETY FIRST

Parks scrambled to bolster disinfecting regimens and implement measures to protect their staff and visitors. Gloves and a low-tech extension device were used at Grand Teton National Park (left), while see-through plastic barriers appeared at other park entrance stations to ensure rangers remained physically distanced from arriving motorists.



SO MUCH FOR RESEARCH

"It was a really tough day," said Abe Miller-Rushing, science coordinator at Acadia National Park, recalling the moment in spring 2020 when he had to advise all the park's researchers to stop their work for an undetermined amount of time. Across the park system, field research that couldn't be conducted without compromising staff safety was postponed or

outright canceled. Between March and May 2020, the Park Service issued roughly one-third of its typical number of research permits, and some long-running studies were halted for the first time in decades.

The news wasn't all bleak. The pandemic introduced a welcome variable into the Canada lynx research of Washington State University graduate student Alissa Anderson (above). The 170 trail cameras she

and her team deployed throughout Glacier National Park captured many people in the western part, but very few in the east, where the entrance was closed to mitigate the risk of infection for residents of the neighboring Blackfeet Indian Reservation. Anderson hopes the data collected between 2019 and 2021 (pre- and post-closure) will provide insights into how lynx and other wildlife respond to human presence.



-----**WILD THINGS**

During the spring 2020 park closures, animals had a field day. Coyotes roamed through Yosemite's Curry Village, and alligators ambled along sidewalks in Everglades National Park even more freely than usual (above).









The combination of crowds and limited enforcement because of reduced staff led to mountains of trash, senseless vandalism, illegal camping and new social trails. A ranger at Zion National Park displays a bounty of litter discarded in the popular Narrows section of the park (above).



Last year, the number of volunteers serving in parks dropped by 68% compared to 2019. Revised protocols also delayed summer hiring and limited the number of people who could live in shared housing, resulting in skeleton staffs for many parks. Miller-Rushing said

students and those early in their career "got hit particularly hard with losses in internships and volunteer and employment opportunities."

EDUCATIONAL SKYPE LESSON IN PROGRESS

> Interpretive staff, such as those at Indiana Dunes National Park, were often co-opted for traffic control and other duties. Closed visitor centers and aborted in-person programs prompted many rangers to take their passion and

expertise outside, where they embraced pop-up-style information desks and virtual classrooms. Bryce Canyon National Park's geology lesson is an online fan favorite, according to ranger Chelsea Niles (above). "This experiment usually produces 'oohs, aahs and whoas," she said, noting how the park's limestone reacts with vinegar in a satisfyingly fizzy manner.

40 NATIONALPARKS FALL 2021 **41**

Out of the Wild

A life-changing summer among the bears of Lake Clark National Park and Preserve.

By Ken Ilgunas

I used to have nice dreams about bears.

When I was in my late teens, I'd dream of grizzlies roaming over lawns and munching on grass in my suburban neighborhood in western New York. At the time, I never quite understood why I'd have these dreams, but I'd wake up exhilarated. I felt drawn to Alaska as if by some unbending law of physics. At age 22, I drove to Alaska to work for a summer cleaning rooms with the idea of seeking real bears and real wilderness.

I saw both, and, year after year, I returned to Alaska to work as a guide or ranger, which managed to keep my bear dreams at bay. But in the spring of 2017, when I was 33, the dreams returned, except this time the bears would be chasing and/or eating me. I'd wake up damp with sweat, wondering if it had been a good idea to accept a job at Lake Clark National Park and Preserve, where I was to spend a summer living amid one of the world's densest populations of brown bears.

Established in 1980, Lake Clark is one of the country's least-known and least-visited national parks. Its 4 million acres — located 120 miles southwest of Anchorage along the Cook Inlet coast — are middling by Alaskan park standards, but

Lake Clark is bigger than Connecticut or any of the lower 48 national parks. There's far more to it than its size or namesake lake: nearly two dozen rivers, creeping glaciers, dense boreal forest, and the mountains of the Alaskan and Aleutian ranges that soar as high as the 10,197-foot Redoubt Volcano. Lake Clark contains numerous significant ancestral sites of the Dena'ina people, who have lived in the area for thousands of years. Tribal members continue to fish and hunt in the park in accordance with legislation that allows for subsistence use of federal lands.

The region is also home to bears. Lots of bears. Many of North America's 55,000 brown bears live on the Alaska Peninsula — the 500-mile saber that slices through the Pacific. (Brown bears and grizzlies are the same species, though it is customary in the area to call the larger, coastal creatures "brown bears" and the smaller, inland ones "grizzlies.") The coastal bears are

so large because of their diet made up of sedge grass high in protein, razor clams as big as hot dog buns and abundant salmon.

As a ranger, I was to monitor human-bear interactions on a 3-mile section of coast within the park boundaries. I wouldn't be out there alone. In this part of the park, known as Silver Salmon Creek, there are a few private cabins and two private lodges that employ guides who accompany guests on walks up to bears. Bush planes from outfits based in Anchorage, Homer, Kenai and Soldotna also land on this stretch of beach every day in the summer. Because of the large number of visiting groups and commercial operators, the Park Service erected a log cabin some years back and started employing park rangers to live there during summers.

I had been looking for a way to escape an untenable living situation, support my writing career and also hit a reset button. The gig seemed like it might do all three, so I went for it, accept-

ing my responsibilities with a kind of reckless "I'll probably get through this despite being unqualified" derring-do. For the past decade, that's how I'd been approaching my life, which was in a constant state of improvisational flux and opportunistic movement. I was often living out of a vehicle or packing a summer's worth of belongings into a backpack. I had a driver's license from Nebraska, health insurance in North Carolina and family in western New York.

Although I'd worked at another park in Alaska, I didn't have experience mediating group conflicts or dealing with bears. My training, in the village of Port Alsworth where Lake Clark's field headquarters are located, included a refresher on shotguns and bear spray, and a chat with the park's wildlife biologist. Because there weren't any actual bears in the training, being flown out to a cabin surrounded by bears felt like being called in to perform

THE MARSHY BASIN of the Chilikadrotna River. Previous pages: Brown bear digging for clams at Lake Clark National Park and Preserve.

heart surgery after reading a medical textbook.

The morning after the training ended, I loaded a small bush plane with as many boxes of food as I could (potatoes, cans of pineapple, Bob's Red Mill muffin mix) and was flown to my cabin. We soared above the clear and placid Lake Clark — a narrow, 42-mile mirror that reflected the cloudy sky — then in between tall mountains, where impenetrable tangles of alder clung to steep slopes. Along the ocean coast, wet sand was etched by scores of squiggly streams, which stretched inland to the forested shore like long roots. When we passed over my home for the season, I could see the bulky bodies of a few brown bears in the light green sedge meadows near Silver Salmon Creek, a small inlet that widens with brackish water twice a day when the tides come in.

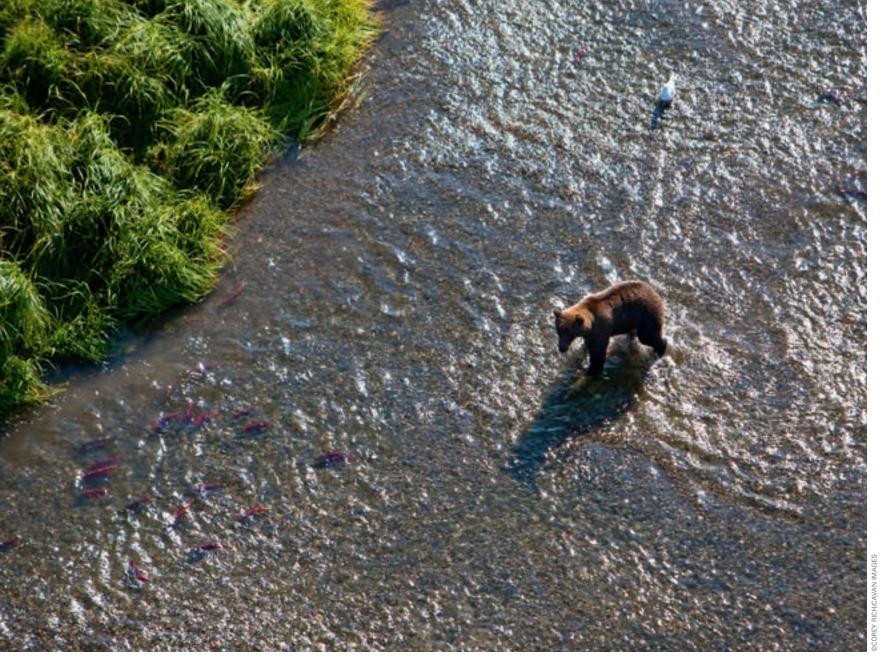
A ranger named Kara, who'd spent a couple summers living in the cabin, joined me for the first few days.

"Here, the bears are like dogs," Kara said with a giggle, shortly after we arrived. "But don't tell anyone I said that." A little later, in a more serious tone, she explained that a couple of years back, a bear had attacked a tourist — an English woman who unfortunately got tossed around and whose foot was bitten. (She survived and was fine.) Kara also casually mentioned that some of these bears might like to eat a human, which had me wondering what sort of dogs Kara had been hanging out with.

In truth, brown bears, like most bears anywhere, pose little threat to responsible humans, but every year there are a handful of bear attacks. In the state of Alaska, between 2000 and 2017, there were 68 hospitalizations and 10 fatalities due to bear attacks. (To put these numbers into context, it should be noted that hunters kill somewhere between 1,000 and 2,000 bears in Alaska each year year, on average — and that doesn't include other human-caused bear deaths.)

Kara gave me a tour of my new home, the Silver Salmon Creek ranger cabin. Surrounded by tall Sitka spruce trees, the spacious log cabin has a big porch with a long roof overhang supported by three timber columns. Gutters that run along the roof — a shiny, metallic forest green — channel rainwater that is pumped from garbage bins to the kitchen sink. Inside are two bedrooms and a large living space with a table, couch and, tucked in the corner, a dried spruce sapling ornamented with fishhooks and spinners. Plus, there's an oven and a fridge with a tiny freezer, both of which run on propane. A sauna, an outhouse and a storage shed (where I would keep a pile of chopped firewood for the cabin's wood stove) sit in the backyard, a carpet of soft moss and rough lichen. It's a two-minute walk to the creek or ocean coast. My initial thought: I can't believe I'm getting paid to live here.

One of the first things I did was clean out the sauna, which



BROWN BEAR fishing for sockeye salmon.

a porcupine had invaded over the winter. I fired up the sauna's wood stove, excited for a trial run, and left

to do more chores as the sauna warmed up. When I came back in, I was hit by a wall of noxious smoke. Waving my arms and coughing through the smoke, I saw that I'd left a 5-gallon Home Depot bucket on the wood stove. Bright orange molten lava was dripping down the side of the stove and onto the floor. I spent the next three hours with a hammer and screwdriver chipping away at the plastic, now hard and glued to the stove, hoping that no one back in Port Alsworth would find out.

"Well that was a long shower," Kara said, when I finally returned

On my first morning on the job, I walked out to the beach to phone the Alaska Region Communications Center, which takes calls from rangers in the backcountry and notes that they're still alive. As I was extending the satellite phone's antenna, I watched

a brown bear saunter toward me on the path I'd just walked. A small red fox daintily trotted next to the bear, as if they were buddies. I wasn't sure if this was a scene from an innocent British picture book or from one of those old German fairy tales full of carnage and hard lessons learned. I took out my bear spray, uncapped it and prepared for discharge. This, I'd quickly learn, was an overreaction. Every day I'd see around 30 brown bears, and many would get much closer to me than this one.

Kara and I hopped on the all-terrain vehicle and drove farther down the beach. We walked over the tidal flat to join one of the local guides with his six tourists, who were snapping photos of a brown bear sow digging up razor clams. The tourists barely looked up at us, so fixated were they on photographing the bear scooping heaps of sand with her paw. With all six cameras clicking, it sounded like we were approaching a stage of Irish tap dancers.

I watched, mesmerized, as the bear, just 20 yards away, pulled a clam out of a hole and ever so delicately pried the shell

open with its claws, before unceremoniously gobbling the clam's pale body. This is the sort of intimate bear behavior many visitors come to see at Lake Clark and nearby Katmai National Park and Preserve. It's a practical guarantee to spot a brown bear at a few select feeding spots, such as the salt marsh at Chinitna Bay in Lake Clark or Brooks Falls in Katmai, where visitors can watch brown bears catch salmon from an elevated platform. Because the bears must fish in close proximity to one another, they've learned to tolerate the presence of other creatures. This ability, and the fact that they are well fed by the bounties of land and water, make them relatively blasé about sightseeing humans.

Unlike Katmai, Lake Clark has no minimum distance requirement for bear viewing, so visitors at Silver Salmon Creek can theoretically get as close to bears as they reasonably can, especially on the beach, where the state has jurisdiction, not the Park Service. To protect both bears and visitors, Lake Clark published bear-viewing guidelines in 2003, in collaboration with commercial operators, Katmai National Park and the state of Alaska. But bear-viewing tourism has grown

substantially over the last decade, and those recommendations are due for a review, said Megan Richotte, Lake Clark's manager for interpretation. The park administration is in the beginning stages of updating the coastal management plan, she said, noting that the process involves working with stakeholders to develop strategies that balance visitor experience with the protection of park resources.

Meanwhile, the guides, some of whom have been conducting bear-viewing tours for years, have developed a loose set of rules that they all follow for the most part: Walk together in clusters, not lines; better to let the bear get closer to the group than vice versa; never allow multiple viewing groups to "wall off" a bear; make sure to communicate with other guides over walkietalkies if you want to join a group "sitting" on a bear; never eat around bears. If these protocols are followed, the bears never have reason to become alarmed or conditioned to human food. Some of these bears had been photographed up close their whole

lives. Later in the season, I'd watch a 1-year-old cub — already accustomed to the clusters of photographers who followed it around all day — get so close to a group that anyone could have scratched under its ears.

"We're like walking trees to them," the guide assured me that first day. "These bears don't view us as a threat. At all."

My first impression of this weird bear-human dynamic was that it was crazy and dangerous and unnecessary and that I wanted nothing to do with it. But the human mind has an incredible skill for adaptation. Within minutes, I was there alongside the tourists — our little walking forest — snapping photos and feeling as if this was all perfectly ordinary.

Kara Left, and my solitary life began to take shape. I was unbothered by many of the daily nuisances of modern working life. I didn't wake to an alarm, endure a mind-numbing commute, or have supervisors looking over my shoulder. My workdays began and ended whenever I liked. I'd make oatmeal and tea for breakfast, and then hop on my ATV and join a few

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bear-viewing groups on the beach or sedge prairie. I wrote down plane numbers, listened to the guides gripe about one another, and fell in love with every passably attractive guest. I tended my four jars of sprouts that were blooming into a curled mess on the windowsill. I'd dig for clams at low tide or fish for Dolly Varden char or salmon in the creek. Sometimes I'd host visiting field biologists, and while I always enjoyed their company, the introvert

in me craved having the place all to myself again.

A lot of my time was spent maintaining my cabin. I trimmed weeds along the electric fence, rewired the water pump, painted the shed and chopped firewood. One of my favorite duties was building a wheelchair-friendly, 25-yard gravel path to the creek. Every day, I'd take my ATV and trailer down to the beach, shovel in a load of gravel, haul it back and then lay the rocks over a mesh covering. It was good, exhausting work and the only visible evidence to anyone that I was doing anything.

I have park ranger friends who've told me about being verbally abused by anti-government cranks, but I've never experienced anything like that. The Park Service is arguably the most beloved agency of the federal government, and everyone seemed to warm to me as I gave my talk about the history of the park and the habits of bears. If there was a kid on board, the air taxis sometimes

called me on my air-to-ground radio to ask me to meet the plane to deliver a junior ranger ceremony. Apparently somewhere in my training binder, I was given a junior ranger oath that the kids were supposed to recite. I never noticed it, so I'd improvise my own, asking the kids, with raised palms, to pledge to commit to everything from ecological restoration to soil rehabilitation. Sometimes I'd throw in something about climate change. Despite the occasionally controversial (and certainly over-serious) nature of my oaths, the parents always looked on proudly, and the kids repeated my words and accepted their small plastic badge with an almost tearful solemnity.

When I wasn't working, I'd sit on the front porch and gaze into the deep green of the woods, listening to the waves lap against the beach at high tide, the wind swoosh through the topmost spruce boughs and the chatter among the red squirrels. I sauteed razor clams in garlic and butter and baked salmon filets in the oven. I'd

Other times I felt

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pull up my chair next to the wood stove and listen to a classic rock station, one of five stations available on a portable radio. I read "Pride and Prejudice," a history of Scotland and almost all of the "Game of Thrones" books — and I felt it was easier to get lost in these worlds in my sanctuary of quiet. These are the good memories.

But other times I felt as if I was under the curl of a dark tide. I wasn't sure what I should have been doing with my life. Living alone in a cabin and being employed at a seasonal job in my mid-30s - perhaps when I should have been making a family, finding a steadier source of income or developing the writing side of my career — made me

question my life choices. No one knew my 34th birthday came and went. By the end of the third week, my summer's worth of chocolate bars was gone.

I wish I could go back and tell my younger self: You're doing fine. Be grateful to be in this beautiful place. Don't spoil it with fretting over the future. Enjoy the fishing, identify a few new plants, read a few good books. But that's the trouble with seasonal employment: You always need to be thinking four months ahead to line up your next job, your next home, your next friend's driveway to park your car in. It's hard to live in the today when you're under pressure to figure out tomorrow.

My isolation was put on pause when my friend Paul flew from Buffalo, New York, for a weeklong visit. Paul had driven up to Alaska with me on that first trip 12 years earlier but hadn't been back since then. He now worked at a cardboard factory. He was paid well, but he hated the midnight shift and found the work unfulfilling. A year before, his girlfriend of eight years, for whom he'd bought an engagement ring, cheated on him and left him with a Dear John letter. He was still emerging from the wreckage.

We went on a 23-mile hike along the coast, carrying an 8-pound portable electric fence. Paul comes from an expressive Italian-Irish family, so the emotional range he brought to our expedition was a good complement to my stoic temperament. I shouldered every burden silently while Paul loudly moaned about every bruise, scrape, bump or rash. The flip side was that Paul, when in a good mood, would constantly express awe about the scenery, the animals and the adventure. I was happy he was there.

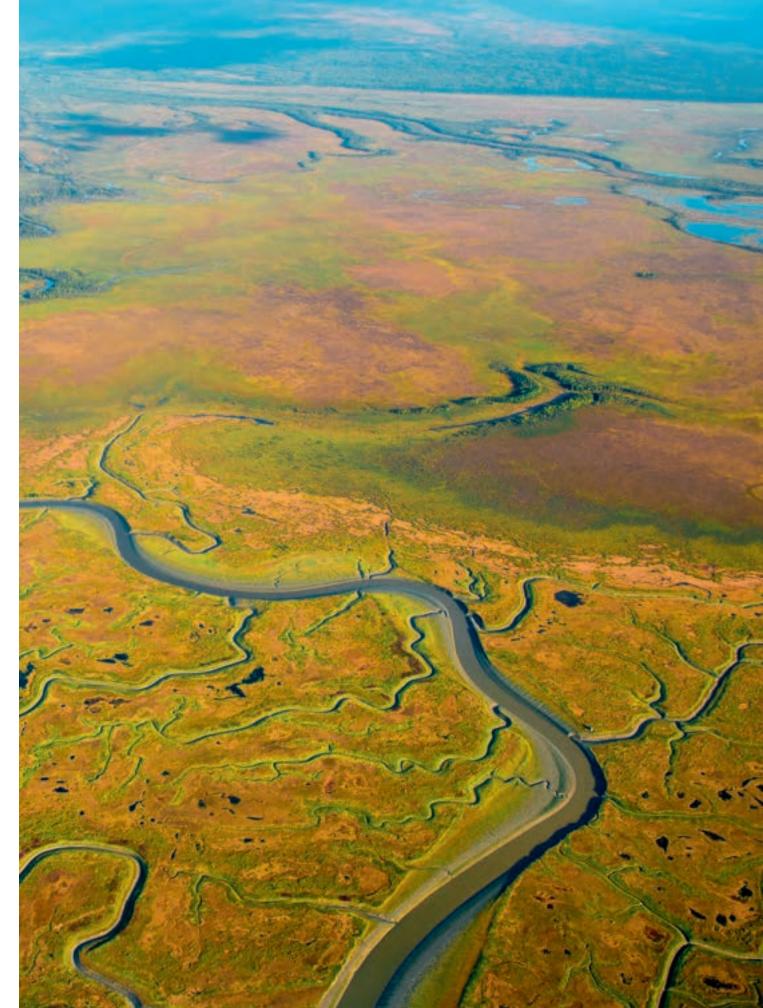
After our first day of walking, our feet were rubbed raw by sand that had crept into our socks. We took a break and followed a creek into the woods, which led to a lagoon of cold water, slick rocks and long quiet sloughs packed with fish. Sun shafts broke through the forest, shining light through the clear water on schools of silvery fish. We'd happened upon an enchanted lagoon, a fisherman's dream, and it felt all the more special knowing how few people on the planet knew about this place.

> I'd been trying and failing to catch a fish for weeks, and now I could clearly see at least 50. We spent an hour or two getting bites. We waded through the lagoon to pull out stuck lures. We fought and lost epic battles. Finally, I watched Paul muscle in a 15-pound monster. Seeing the wild delight on his face during a low point in his life made me inexpressibly happy. Later, as we cooked the fish over a driftwood fire on the beach, Paul said, "For all my life, I'll never forget this."

> Many of us who feel stuck in cities or suburbs have some symbol of wilderness that reminds us that there's another existence out there — one that, maybe just maybe, we'll get to live. Paul was deter-

mined to see a wolf on this trip. For Paul, the wolf represented a simpler way of life: a sensory-based existence spent in the open air, not one stuck inside the cold corners of a factory. For me, back in my late teens, it had been the grizzly bear. I'd thought of the grizzly as not just an apex predator, but as apex wilderness the wildest, most ferocious, most dangerous embodiment of the natural world. And I used to think that to get close to one would be to confirm that, yes, I had finally made it into true wilderness.

Paul needed wilderness for escape, for revival. I once needed this, too. I believe I used to have recurring dreams of grizzlies because something within me was nudging me to get out of the suburbs and find adventure and truth in the depths of wilderness someplace far away. In waking life, I imagined that Alaska could possibly connect me to ancient sensations, to a core self. I may have been propelled by the exuberance of youthful romanticizing, but I do think the Arctic mountains I'd scrambled up and the close encounters I'd had with wild animals made previously terrifying things — job interviews, speaking in public, talking to women — slightly less terrifying. Wilderness can be not only



a portal to the past, but a portal to a wilder, better version of you.

But I no longer needed solitude or transformation. I was living the way my younger self had wanted to, but I wasn't that young man anymore. The improvisational nature of my life, which once had felt enlightened and deliberate, now felt disorienting and, in jobs like this one, unnecessarily risky.

And I no longer felt mystically drawn to bears. Especially after my many encounters that summer. Rarely did bears so much as look at me, but there were a few close calls. One cranky bear clicked its jaws at me as we walked past each other on the

THE COAST near the Silver Salmon Creek. beach. An adolescent bear approached me as I fished off the coast until I screamed it away. Another used a horizontal fence post to step over the electric fence encircling my cabin and rubbed its back against a timber column on my porch, waking me from a nap. I was rarely terrified, but I was always in a state of hyper-vigilance. I missed going on carefree walks and jogs. I grew tired of the low-level fear I always had humming in the background of my mind, the steady drip, drip of cortisol in my bloodstream.

I didn't realize it at the time, but I was walking in circles. Without knowing how to get to the next stage of life, I was falling back on my established work patterns and crisscrossing the country following the rutted paths of my old range. My constant state of movement was its own form of stasis.

I was tired of missing friends' weddings. Of making close friends at seasonal jobs and never talking to them again. Of having my nose stuck in a book in some forgotten corner of my foreignness to it and the solitary circumstances I found myself in. Unlike the Alaska Natives who have lived in the region for millennia, I wasn't surrounded by family, friends and fellow tribal members. This wasn't home, and I wasn't sure where home was.

As FALL APPROACHED, the weather got windier and rainier, and the planes stopped landing on the beach. The sedge grew tough and stalky, the salmon run ended, and the bears moved into the woods and hills as they prepared for hibernation. I found myself feeling something worse than fear or loneliness — nothing. I started to live more in the stories of my books than the reality around me.

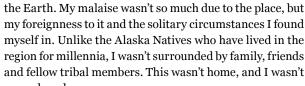
> That summer in Lake Clark National Park, I went into the wilderness, and the wilderness told me to leave. Sometimes the right journey isn't to venture into the wild, but out of it.

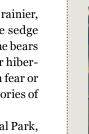
> When the season ended, I drew up a list of all the towns in America I might like to start a new life in. I didn't know anybody in some cities. Other cities appeared to be made up entirely of unwalkable urban sprawl. All seemed unaffordable. Ultimately, I bought a one-way flight to Scotland, with the idea of roaming a new continent and maybe starting a new life.

On that trip, I met my future wife at a book festival. We now live in a small suburban house in a quiet village. I have a kid, a mortgage and a driveway of our own to park our car. In my 20s, I'd never imagined living in such a place, but, at present, it feels right.

Sometimes I hike the Highlands of Scotland, where there hasn't been a wild bear for over a thousand years. It's nice not to have to constantly worry about bears invading my tent at night. I feel safe, but sometimes when I look over these bare, empty hills, I feel like they are missing something. That I'm missing something. Perhaps it's that which makes the land come to life. That which makes an ecosystem seem healthy and whole. That which can haunt nightmares, enchant dreams, inspire feelings of wildness and freedom, or summon uncertainty and terror. Bears beckoned me one decade and scared me away the next. And, who knows, one day they just might call me back again.

KEN ILGUNAS is the author of "Walden on Wheels," "Trespassing Across America" and "This Land Is Our Land." He lives in Scotland







A proposed gold and copper mine could spell disaster

for the "Bear Coast" of Alaska, that wild and rugged

sweep of land that hugs the shore along the Aleutian

parks. Home to an astonishing number of brown bears

Range and includes Lake Clark and Katmai national

and the world's largest wild sockeye salmon run, the

NPCA at Work

on Alaska's Bear Coast

region depends on both bear-viewing and fishing for its economy. "There's really only this very particular place on Earth where people can experience the magic of these giant brown bears in their natural habitat," said Alex Johnson, NPCA's Alaska senior program manager. "It makes no sense to squander that for a mine."

If completed, Pebble Mine would gouge a milewide, 1/4-mile-deep hole a few miles west of Lake Clark National Park and Preserve. The enterprise would also require a new industrial port and an 83-mile private road that would fragment prime bear habitat and lead to more conflicts between humans and bears. The mining project as a whole would destroy 4,000 acres of wetlands and more than 21 miles of salmon streams. The mine's toxic waste would be stored in ponds held in place by high-risk dams, whose failure could result in 1.1 billion tons of chemicals flowing into the pristine Bristol Bay watershed.

For over a decade, NPCA has been working to protect this critical landscape. Staff have organized local communities, partnered with a diverse coalition of allies, engaged experts and submitted public comments. Though the U.S. Army Corps of Engineers denied the mine developer's permit last fall and an Alaska Native corporation voted to place key land under a conservation easement to restrict development, the fight is not over. NPCA urges the Environmental Protection Agency to veto the project through its powers under the Clean Water Act. Learn more and get involved at npca.org/stoppebblemine. -Katherine DeGroff





Cabin Revival

Photographer Jun Fujita and his Voyageurs cabin are getting a second look.

boat ride to get there, but on this small island in Voyageurs National Park located just a few miles from the Canadian border, Graham Lee was as close to his great-uncle as he ever would be.

Jun Fujita, a news photographer, poet and artist, had died just a couple of years before Lee was born, but as a boy Lee had listened avidly to his family's recounting of Fujita's adventures and marveled at his photos. "He was always kind of there," said Lee. He was an adult, though, when his Fujita obsession took hold of him. He inherited a box of Fujita's photo negatives, and that set Lee on a quest to learn more about one of the most fascinating — yet least known — Japanese American figures of the 20th century.

Lee, a 55-year-old computer specialist, graphic designer and writer based in Wisconsin, started poring through newspaper and historical archives, looking for interviews, letters and, especially, photographs. Some of the ones he found depicted a cabin on an island on Rainy Lake, in the wild north of Minnesota, where Fujita spent many summers in the 1930s. The island had become part of Voyageurs National Park when the park was created in 1975, so Lee reached out to Mary Graves, then the park's chief of cultural and natural resources, and in July 2013, Lee and his wife, Pam, spent two hours exploring the island and the cabin with Graves and another ranger.

"Truly, it was a magical experience,"

Lee said. "It was like walking back in time, like walking in his footsteps."

Fujita was born near Hiroshima, Japan, in 1888. As a teenager, he traveled to British Columbia with a camera to cover the timber and salmon fishing industries for his uncle's newspaper back in Japan. After doing various jobs in Canada, he moved to Chicago where he graduated from high school and started training as an engineer. Perhaps to help pay the bills, he took a position as a photographer at the Chicago Evening Post. He didn't look back.

Though English wasn't his native language and he didn't know how to drive, he often found himself at the right place at the right time. On July 24, 1915, the SS Eastland passenger ship rolled over at the dock, killing 844 people. The Evening Post's editors frantically tried to locate Fujita, the paper's only news photographer, so he could capture one of the biggest tragedies in Chicago's history. "They were looking for him, but he was already there," said Lee, who is working on a Fujita biography. Fujita distinguished himself in his coverage of the racial violence that broke out in Chicago in 1919, photographing the murder of a Black man named John Mills by a white mob. He also photographed the rich and famous, from Albert Einstein to Al Capone, and socialized with some of the bestknown writers. "Ernest Hemingway and Faulkner would come to town and say, 'Where's Jun at?" Lee said. It's also around that time that he met Florence Carr, Lee's great-aunt. The two hit it off immediately after they met at a gathering of a local poetry society.

But while Fujita enjoyed the excitement of big city life, he also relished getting (very far) away from it. In 1928, Carr bought the island on Rainy

"I do think there were incidents at the cabin that made him uncomfortable."

Lake, probably because Fujita thought the purchase was more secure in the name of his partner, who was white. (In the 1940s, some 120,000 Japanese Americans lost their property as they were forcibly relocated to incarceration camps.) He built most of the cabin himself shortly after the land purchase and apparently modeled several features, including the moderately pitched roof, after Japanese homes of the time.

Every summer, he made the long trip from Chicago to the 4-acre island with his camera and his typewriter in tow. Fujita favored a Japanese poetry style

known as tanka, but he wrote the 31-syllable-long pieces in English. Several of his poems were published in Poetry magazine alongside work by luminaries such as Carl Sandburg and Ezra Pound. Though it's not certain he wrote any of his poems at the cabin, the subject matter of many of his pieces suggests that he did. Fujita also took advantage of his location to shoot commercial photographs for his clients, including a boat motor company. He spent much of his remaining time writing letters to Carr, taking pictures and fishing. "He may have introduced sushi to the area,

THE ILLINOIS Army National Guard questions a Black man during the racial violence that broke out in Chicago in 1919.





GRAHAM LEE, Fujita's great-nephew, stands outside Fujita's cabin in Voyageurs during a visit in 2013. Lee is working on a book about Fujita's life and work.

which may have been a shock to some people," Lee said.

As a man of Japanese descent, Fujita stood out in the north woods. Lee said Fujita was usually able to deflect prejudicial attitudes, but eventually those may have gotten to him. His island was known to locals as "Jap Island," and anti-Japanese sentiment increased in the years leading up to World War II. "I do think there were incidents at the cabin that made him uncomfortable," Lee said. After the Pearl Harbor attack, Fujita was labeled an "enemy alien," and he was forced to close his commercial photography studio. He avoided a worse fate thanks in part to his marriage to Carr in 1940 and the support of his former newspaper editor, but he never

returned to the cabin after the early 1940s. He held on to it for more than a decade, maybe hoping that the climate would improve, before selling it in 1956. He continued to live in Chicago until his death in 1963 at age 74.

The Fujita cabin has never been much of a destination in the park. The cabin did not even appear on the park's map, and the site was not publicized. That is starting to change. Erik Ditzler, who started working at Voyageurs in October and quickly became a Fujita enthusiast himself, is hoping to organize an exhibit of Fujita's photographs at the park. And Fujita's cabin, which the park bought in 1985, is in line for an overdue makeover. Thanks to funding secured by the Voyageurs Conservancy in conjunction with the National Park Foundation, the cabin will be restored to its 1930s appearance, and signage explaining Fujita's significance will be added to the site. "That was a story that needed to be told," said Megan Noetzel of the Conservancy.

This year's restoration is set to be completed in early fall and will be performed by two crews from the Northern Bedrock Historic Preservation Corps, a Minnesota-based nonprofit that gives young adults the chance to experience the outdoors and gain historic preservation experience, from window restoration to masonry. No prior experience is required. "In some cases, we're

teaching them how to hold a hammer," said Jill Baum, the corps' executive director. The crews will remove an addition built by people who owned the cabin after Fujita, replace deteriorated logs and fix up the roof. They will work under the supervision of a park preservation carpenter. "It is a big project," said Ditzler, the ranger. "We don't want to use modern materials to repair a 100year-old cabin."

The locals who turned on Fujita may not have realized how much they owed him. In the 1920s and 30s, a business magnate proposed building a series of dams within the Rainy Lake watershed, which would have forever altered the region's landscape of lakes and islands. Conservationist Ernest Oberholtzer opposed the project vigorously, but he needed beautiful pictures of Rainy Lake to convince decision-makers of the need to preserve it. He reached out to Fujita, who not only let him use his photographs (see one of these images on p. 2) but connected him with prominent newspaper editors.

"Voyageurs may not exist if his photographs hadn't influenced people to protect the area," Ditzler said. NP

For more information, visit instagram.com/fujitabehindthecamera/.

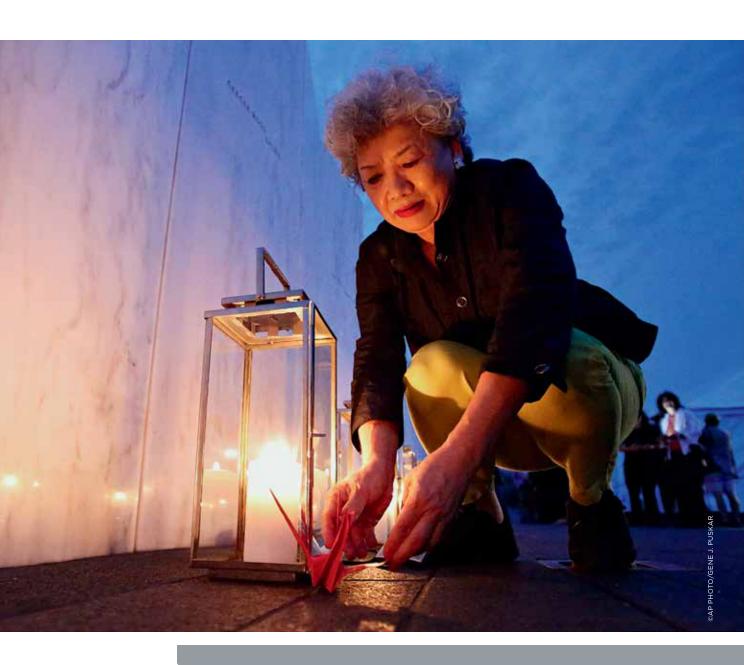
NICOLAS BRULLIARD is senior editor of National Parks magazine.

MORNING WOODS

A static mood, in the morning woods, Wet and clear -In a majestic pattern, leaves are spellbound By a fawn, ears perked.

by Jun Fujita





YACHIYO KUGE LAYS AN ORIGAMI CRANE NEAR THE NAME OF HER SON TOSHIYA at the Wall of Names, Flight 93 National Memorial, Pennsylvania, September 2014.