

CONTENTS



A bigleaf maple tree in Capitol Forest near Olympia, Washington. Tree poachers have scraped bark from its surface to reveal the quilted figure they covet, leading investigators to suspect it might have been the poachers' next target. COURTESY ANNE MINDEN

FEATURE

12 **The Tree Ring** By Ben Goldfarb
How a landmark investigation busted
a Washington timber-poaching gang

On the cover

Conservation scientist
Shiloh Halsey makes
his way across the
downed logs and
abandoned chunks of
bigleaf maple in the
Slaughterhouse in
the Gifford Pinchot
National Forest, site
of a timber theft
investigation.

TERRAY SYLVESTER.



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CURRENTS

- 5 **The West's coal giant is going down** Arizona power plant closure will leave cleaner air and wounded economies
- 7 Where the wild things swim again In a borderlands river, improved water quality allows an endangered fish to return
- 7 The Latest: Nevada rancher Wayne Hage
- 8 **Return of the grizzly?** Feds consider transplanting bears to Washington's North Cascades
- 9 **Reagan-era redux?** Pruitt isn't the first EPA administrator who appears to be hostile to its very mission
- 9 The Latest: Idaho megaloads

DEPARTMENTS

- 3 FROM OUR WEBSITE: HCN.ORG
- 4 LETTERS
- 10 THE HCN COMMUNITY Research Fund, Dear Friends
- 20 MARKETPLACE
- 24 WRITERS ON THE RANGE

 Montana deals with its antiquated laws on rape By Gabriel Furshong
- 25 BOOKS

The Naturalist: Theodore Roosevelt and the Rise of American Natural History by Darrin Lunde and Rightful Heritage: Franklin D. Roosevelt and the Land of America, by Douglas Brinkley. Reviewed by Barbara Basbanes Richter

- 26 ESSAY Arctic owling By Krista Langlois
- 28 HEARD AROUND THE WEST By Betsy Marston

Editor's note

Barbecues, large and small

Whenever I feel a bit down about the fact that, after electing a billionaire president who campaigned on promises to help the working class, we are now fighting a breathtakingly brazen attempt to enact the agenda of corporate America, I find it



helpful to remember that we've seen all of this $\,-$ or at least some of it $\,-$ before.

Mark Twain called the late 1800s the "Gilded Age." Historian Vernon Parrington, however, preferred the more cynical term "The Great Barbecue," referring to the government's brutal seizure of the West's lands and their subsequent giveaway to white settlers, land speculators, and railroad, mining and timber barons.

"Congress had rich gifts to bestow — in lands, tariffs, subsidies, favors of all sorts," wrote Parrington, "and when influential citizens made their wishes known to the reigning statesmen, the sympathetic politicians were quick to turn the government into the fairy godmother the voters wanted it to be. A huge barbecue was spread to which all presumably were invited."

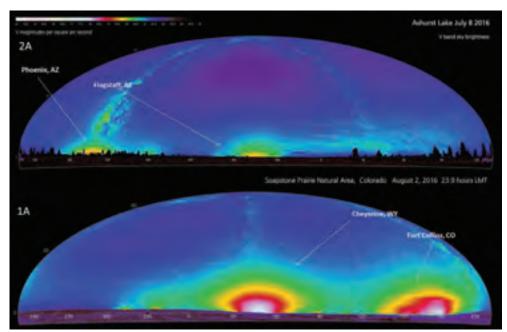
One hundred years later, in the 1980s, the next course was served by the Reagan Revolution. As Contributing Editor Cally Carswell reports on page 9, Reagan's pick to head the Environmental Protection Agency, Anne Gorsuch (the mother of Neil Gorsuch, Donald Trump's current Supreme Court nominee) led the charge to slash her own agency's budget and relax pollution standards. Scott Pruitt, the Trump administration's new EPA administrator, has staked out an eerily similar path.

As this administration scuttles regulations on everything from the oil and gas industry to drug manufacturers and bankers, and pushes a budget that would bloat the military while starving programs designed to help people and the environment, it is clear that the Big Barbecue never really ended. Many of our fellow citizens are still eagerly begging for scraps.

The people illegally cutting valuable bigleaf maple and selling the wood to small mills in the Pacific Northwest, featured in Ben Goldfarb's cover story, are a far cry from the timber barons of yore. Many are locals working to feed their families or their drug habits, living in rural communities where the good-paying timber jobs have long since dried up. It's hard to feel too angry at them, but there has to be a better way to get by.

Will President Trump honor his commitment to help people like this? So far, the prospects appear dim. There's been a lot more focus on reducing constraints on Big Business than there has been on rebuilding the nation's infrastructure or, for that matter, providing rural people with jobs restoring our forests and waterways. In the meantime, we still have laws that rein in the excesses of capitalism and affirm our rights to a clean environment and equal treatment. Judging by the mounting protests and lawsuits, and the news media's renewed vigor, those laws won't be easily undone.

-Paul Larmer, executive director/publisher



Data mosaics show brightness and artificial light measurements taken from Ashurst Lake in Arizona's Coconino National Forest and northeastern Colorado's Soapstone Prairie Natural Area. NATIONAL PARK SERVICE

Chasing clear skies

In some less-populated places, the Milky Way's glow can be seen on any clear night. But for many of us, seeing the splendors of the night sky means traveling far outside city limits to a place away from streetlights and other artificial illumination. Now, many national parks and Western cities

are making an effort to limit light pollution. "Everything has its time and place, and the same is true of light and darkness," astronomy author Bob Berman recently told NBC. "There is a place for darkness, and, I think that is slowly being realized." JODI PETERSON MORE: hcne.ws/dimmer-switch

Can Western governors get what they want from Scott Pruitt?

Just a few days in office, Scott Pruitt, the new administrator of the Environmental Protection Agency, hosted an early Sunday morning breakfast for 11 Western governors. He told them that, under his leadership, the EPA will defer to states far more than it has in the past. That message resonated



EPA Administrator Scott Pruitt.

with the Western governors, across political lines. Western governors from both parties felt the Obama administration's EPA failed to adequately consult the states as it crafted some important environmental regulations, such as the 2015 Clean Water Rule. "We believe (Pruitt's EPA) will partner with states in a way that's meaningful," says Nephi Cole, Wyoming Gov. Matt Mead's policy advisor, "in a way that, quite frankly, the previous administration did not." While the Western governors break out of the hyper-partisanship and see a partner in Pruitt, potential major budget cuts to the EPA may give Pruitt less leeway to respond to state needs.

ELIZABETH SHOGREN

MORE: hcne.ws/partnering-pruitt

Audio



BROOKE WARREN/HCN

"When there's no rehab facilities, what happens is people get arrested, and that's their first respite of sobriety.
... As a result, Craig is having to expand its jail for people that are there more increasingly for drug crimes."

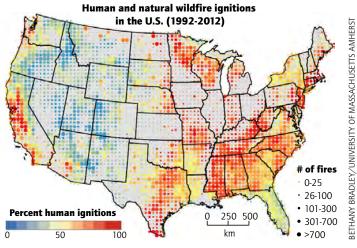
speaking on the "West
Obsessed" podcast
about how she
investigated opioid
addiction in rural
Colorado for her Feb. 20
cover story "Overdosed."
KATE SCHIMEL
MORE: hcne.ws/
opioid-podcast

-Paige Blankenbuehler,

We did start the fire

By studying Forest Service records, University of Colorado-Boulder researchers found that 84 percent of the 1.5 million wildfires that burned nationally from 1992 to 2012 were lit by humans, not including controlled burns intentionally lit for fire management. In total, humans started more than 1.2 million fires. Even in parts of the country where lightning strikes cause the most fires — such as the Intermountain West — humans have increased the number and size of fires, and the length of the season, by three months on average. Fires primarily ignite in areas where humans butt up against the wild: roads, encroaching cities and the edges of agricultural fields. Each year, most ignitions happen on July 4, with 7,762 fires burning in 21 years. MAYA L. KAPOOR

MORE: hcne.ws/longer-fireseason





Hydrology technician Andrew Hedrick cuts wedges of snow from a pit on Grand Mesa in western Colorado. BROOKE WARREN/HIGH COUNTRY NEWS

From flake to flow

The Western snowpack is an icy natural reservoir that delivers most of the region's water. But the amount of moisture in snow varies. Monitoring how wet snow is across an entire landscape — information essential for forecasting water supplies and flood potential — is difficult. To figure out how to do it, about a hundred researchers converged on snowy, flat-topped Grand Mesa, in western Colorado, for an ambitious scientific treasure hunt in February. They took measurements and tested dozens of instruments, looking for the optimum suite of sensors to survey "the holy grail" of snow-sensing research: the amount of water held within the snow.

EMILY BENSON

MORE: hcne.ws/know-your-snow

Trending

Farmers say Clean Water Rule goes too far

In an opinion piece for The Conversation, an HCN partner, Reagan Waskom and David J. Cooper from Colorado State University take stock of which waters the Clean Water Rule protects. In February, President Donald Trump issued an executive order to revise the rule. With or without it, ambiguities in the Clean Water Rule have created regulatory uncertainty for farmers, ranchers and developers. If the Trump administration withdraws or weakens the rule, regulators are likely to interpret caseby-case whether tributaries and adjacent waters are covered, as they have since 2006. Repealing the rule won't answer the underlying question: How far upstream federal protection extends.

You say

RUTHANNE ISBELL: "Farmers are

concerned with the environment, too, and not all think the (Environmental Protection Agency) should be abolished."

MICHAEL STIEHL:

"The implications could have dramatic effects on interstate compacts, such as the Colorado River Compact, which supplies water from the headwaters states to such population centers as Los Angeles and also the Imperial Valley, not to mention Phoenix."

IRENE HAMILTON:

"Hope farmers aren't getting scapegoated. Where does the puzzle piece of fracking fit in this ruling? Or does it?" MORE: hcne.ws/water-regs and Facebook.com/highcountrynews

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REHAB FOR PROFIT

Your article "Overdosed" in the Feb. 20 issue was accurate and well-researched. and it is a story that has played out across the nation. As a recently retired general practitioner in Palmer, Alaska, I had 41 years of practice to witness the formation of our addicted, chronic-pain and disability culture. More and more patients require huge amounts of opioids for pain control following surgery due to their extremely high tolerance to painkillers.

Back in 1974, when I started practice in the then-mostly rural and agricultural community of Palmer, we saw our occasional Valium, Quaalude, Demerol and amphetamine diet-pill seekers, but nothing of the magnitude seen today. Pain as the "fifth vital sign" came into existence along with the expectation of reducing all pain, usually with opioids. In the '70s, there weren't the megadose pain-clinic pill mills, just a few doctors with the reputation of being loose prescribers.

Unethical doctors have seen good money in pill-mill storefront pain clinics with their "pain contracts," urine drug tests and monthly clinic visits. Little policing has been done by the DEA or our state medical board, except in severely egregious cases. Perhaps the best solution given our present pro-business and anti-consumer protection administration is for Big Pharma and the associated enabling organizations to face the individual and class action suits that Big Tobacco experienced. Awards may help the already addicted with detox and rehab, but those facilities are in short supply. I'm willing to bet that these facilities will become the next big money-making project for a new for-profit industry, with enough desperate families with financial means or insurance coverage wanting to help their addicted loved ones. Of course, prescribing habits of all providers need to be reined in. We've contributed to the problem, knowingly or not, with our own prescription pads.

David P. Werner, MD Palmer, Alaska

VETERANS ON THE LAND

Regarding the article "River of Healing" in the Feb. 6 issue, as a Forest Service smokejumper and wildland firefighter who runs a veterans' hiring program, I can attest to the fact that many veterans thrive in pursuits that bring them close to nature and replicate aspects of their military careers, such as teamwork, shared goals and physical chal-



lenges. The program I created for the Forest Service is called "Lead Forward," and we recruit veterans and place them in seasonal jobs for the Forest Service that include wildland firefighting as well as recreation and biology. It has been a very successful program, and we have placed over 100 veterans, many with disabilities, into jobs over the last three years. In this era of politics and government, when most of what the government does is viewed negatively, this is a positive example of the federal government doing great things to protect our wildlands while also helping veterans. In particular, wildland firefighting jobs have proven to be a great fit for many veterans who were drifting before they came to us. They're tapping into skills such as leadership, team cohesion and rapid decision-making — skills that they learned in the military that also have very real applications for wildland firefighting.

Dan Cottrell, Director, Lead Forward Veterans Hiring Program Missoula, Montana

BOYCOTT UTAH

I applaud and support key recreational industry leaders who have pulled out of the Outdoor Retailer shows in Salt Lake City ("Outdoor rec industry defends public lands," HCN, 2/20/17). As an individual, I can also play a role in swaying the policy opinions of the Utah delegation regarding protection of public lands. And that role is to spend my recreational dollars in states other than Utah. If enough outdoor recreationists adopted this position, they would collectively have a negative financial impact on local communities adjacent to these public lands.

As their livelihoods suffer, I suspect they would complain to their representatives about the negative consequences their policy positions have on the Utah tourist industry. It may not change things overnight, but history (South Africa) has shown that it is one of the few things that gets the attention of the so-called leaders.

Although I have spent many wonderful days traipsing through southern Utah, I will defer any future trips to this beautiful part of the country until the Utah delegation backs off from its extreme policy positions on public lands. And if I have to drive through Utah to get to other states, I will fill my tank at the Colorado border so as not to have to spend one cent in Utah.

John Scahill Pagosa Springs, Colorado

URBAN ECOSYSTEMS ARE DIMINISHED ECOSYSTEMS

Being trained in plant ecology, I enjoy *HCN*'s well-balanced reporting of issues relating to that subject. The inclusion of Emma Marris' review of Nathanael Johnson's *Unseen City* in the Feb. 20 issue is an example. I agree that urban wildlife systems are ecosystems in their own right, and they contain many beautiful wonders, if we are willing to look for them. Yet at the same time we might want to remember that these urban ecosystems are simple, much less diverse, much more unstable, and far less productive of the so-called "services" upon which humans rely, than the relatively undisturbed ecosystems we find in our national parks, for example.

Stephen Fischer Los Angeles, California





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CURRENTS

The West's coal giant is going down

Arizona power plant closure will leave cleaner air and wounded economies

BY JONATHAN THOMPSON

smokestacks of the Navajo ■he The smokestacks of Generation Station rise 775 feet from the sere landscape of the Navajo Nation in northern Arizona, just three miles away from the serpentine, stagnant blue wound in sandstone known as Lake Powell. Redrock cliffs and the dark hump of Navajo Mountain loom in the background. Since construction began in 1969, the coal plant and its associated mine on Black Mesa have provided millions of dollars to the Navajo and Hopi tribes and hundreds of jobs to local communities, as well as electricity to keep the lights on and air conditioners humming in the metastasizing cities of Phoenix, Tucson, Las Vegas and Los Angeles. Yet they also stand as symbols of the exploitation of Native Americans, of the destruction of the land and the sullying of the air, all to provide cheap power to the Southwest.

But coal power is no longer the best energy bargain. And in mid-February, the plant's four private utility owners, led by the Salt River Project, voted to shut it down at the end of 2019, some 25 years ahead of schedule. When the giant turbines come to a halt and the towers topple in the coming years, the plant will become a new symbol, this time of a transforming energy economy and an evolving electrical grid that is slowly rendering these sootstained mechanical megaliths obsolete.

The closure will deeply wound local economies, particularly in Page, LeChee, Kaibeto and Kayenta. Employment numbers fluctuate, but according to an environmental impact statement prepared to analyze the previously planned 2019 renewal of the plant's lease, the Navajo Generating Station, the Kayenta Coal Mine on Black Mesa and the 78-mile electric railroad that carries coal from the mine to the plant employed 935 workers in 2014. Ninety percent of them are Native American. The average payroll expenditure per employee (wages, salaries, benefits, etc.) is \$141,500.

The operating budgets of the Navajo Nation and the Hopi Tribe will also take

Jonathan Thompson is a contributing editor at High Country News. He is currently writing a book about the Gold King Mine spill.

@jonnypeace



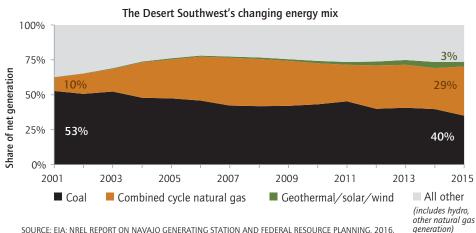
a severe beating. Both tribes got the short end of the stick — a royalty rate of just 3.3 percent — when Peabody Coal first obtained the leases to mine Black Mesa in the 1960s. The attorney representing the Hopi Tribe, John Boyden, was actually on Peabody's payroll at the time, and managed to get a sham tribal government to sign over mining rights against the objections of traditional Hopis, as has been thoroughly chronicled by Colorado writer and law professor Charles Wilkinson. The mines — Black Mesa and Kayenta forced families to relocate, destroyed grazing land, dried up springs and wrecked ancestral Hopi shrines and other sites.

The tribes fought back and eventually negotiated better terms. Both tribes now rely heavily on royalty and lease payments from the mine and the power plant, even as tribal members fight against the polluting and water-gulping ways of plant and mine. Those royalties, bonus payments and water-use fees amounted to \$54 million in 2015, paid to the Hopi Tribe and the Navajo Nation by the owners of both the Navajo Generating Station and the Kaventa Coal Mine.

Peabody Western Coal Company and the Salt River Project — the plant's operator — donate around \$1.7 million each year to local scholarships and charity. The Kayenta Coal Mine buys \$9.9 million dollars worth of electricity yearly from the Navajo Tribal Utility Authority. Before the closure announcement, the plant's owners and the Navajo Nation had been renegotiating the lease, which runs out in 2019, to make it more favorable for the tribe. Peabody also hoped to expand the

Yet without the Navajo Generating Station, one of the biggest polluters in the West, the air, water and land of the

The Navajo Generating Station, a 2250 megawatt coal-fired power plant on the Navajo Indian Reservation near Page, Arizona, is scheduled to shut down in 2019. JANICE AND NOLAN BRAUD / ALAMY



Colorado Plateau will be far cleaner. Each year, the plant and the mine emit nearly 20 million metric tons of carbon dioxide, methane and other greenhouse gases. The plant also spews sulfur dioxide, nitrous oxides and thousands of pounds of mercury, selenium and arsenic. These elements, which are toxic to humans and wildlife. have shown up in relatively high concentrations in fish in the Grand Canyon and the San Juan River upstream from Lake Powell, as well as in precipitation at Mesa Verde National Park. Meanwhile, the plant produces about 1.3 million tons of solid waste, most of which is dumped nearby.

Natural gas burns far more cleanly than coal, so if all of the lost power generation is replaced with natural gas-generated electricity, then greenhouse gases would be cut in half and the particulates and other emissions cut to almost zero. Natural gas production, however, like coal production, emits methane, a powerful greenhouse gas, along with other potentially harmful hydrocarbons.

The plant also plays a huge role in the Southwest's water-energy nexus. The Kayenta Coal Mine draws about 1,200 acre-feet of groundwater annually from the Navajo Aquifer for various uses. The Navajo Generating Station, meanwhile, pulls about 28,000 acre-feet — or 9 billion gallons — of water from Lake Powell each year, for steam generating and cooling. Some coal plants return some of the water to the source; the Navajo Generating Station does not. The Bureau of Reclamation owns a large fraction of the plant and uses most of its share of electricity to run the pumps for the Central Arizona Project,

which delivers Colorado River water to Arizona cities. To move about 1.6 million acre-feet of water annually, the pumps use about 3 million megawatt-hours of juice, enough to power about 240,000 Arizona homes.

Navajo Nation President Russell Begave pleaded with President Donald Trump to do something to keep the plant open, but apart from purchasing the entire plant and operating it at a loss, there's little the federal government can do. That's because economics, not regulations, are driving the plant's closure. Salt River Project officials note that it's now cheaper for them to buy power for their 1 million customers from other sources than it is to generate power at Navajo, thanks mostly to low natural gas prices. A November 2016 study by the National Renewable Energy Laboratory found that the Central Arizona Project pays about 15 percent more for electricity from the power plant than it would if it bought power wholesale from the Mead trading hub located near Las Vegas.

None of this will change even if Trump rolls back regulations put in place by the Obama administration. In fact, if a drill-heavy energy policy goes into effect, it will increase natural gas supplies, thus further increasing the spread between natural gas and coal. Still, environmental protections do play a role, albeit a smaller one than the economics does: California's move away from coal power lowers the value of the plant's power, and the requirement that the plant install nitrous oxide-reducing equipment increases costs.

The electrical landscape is evolving in other ways, as well. The days of vertically integrated utilities that own huge, centralized power stations and their own balkanized grids are giving way to a new era in which utilities purchase power generated by smaller plants that are connected to larger, regional grids.

California's independent grid operator has already joined up with NV Energy, PacifiCorp and other Western utilities to form an energy imbalance market, which allows the utilities to share generators whether wind, solar, natural gas or coal — to "balance" their grids in real time, rather than having to rely only on their own generators. These utilities are hoping to expand this market and then take it to the next level of a regional, integrated grid in coming years. The closure of the Navajo Generating Station adds new urgency to this effort, and a more integrated grid will ease the utilities' transition away from the plant.

The decision to close the plant came as a surprise. The plant's owners had been negotiating a new lease with the Navajo Nation and considering shutting one of three units and replacing it with other energy sources. Meanwhile, the mine was looking to expand. Outright closure this soon was not on anyone's radar, so there is no firm transition plan in place. Both the Bureau of Reclamation and Peabody have expressed a desire to keep the plant running beyond 2019, but they'd have to do it without the other owners and against economic headwinds.

When the Mohave Generating Station and the Black Mesa Mine closed in 2005, environmentalists and tribes pushed the California Public Utilities Commission to create a revolving "just transition" fund with money earned from the sale of sulfur dioxide credits from the shuttered plant. The fund, the value of which dwindled as sulfur credit prices fell, is supposed to help develop renewable energy on the reservations.

There are few or no such credits available for the Navajo Generating Station, however, so that approach won't work here. A coalition of Navajo groups that have been resisting the plant and mine for years want the Navajo Nation and Hopi Tribe to demand a full remediation and reclamation of the plant and mine; to push the plant owners to replace lost electricity generation by building new solar, wind or other plants on the reservations; and to take over the two high-voltage transmission lines and secure the substantial water rights held by mine and plant.

"I am very happy and relieved that Black Mesa Trust's struggle to save sacred waters on Black Mesa will finally end in 2019," said Black Mesa Trust Executive Director Vernon Masayesva in a statement. Masayesva, a former Hopi tribal chairman, has battled the mines on Black Mesa for years. "It is time to begin healing the ecological-cultural landscape."

People collect hunks of free coal at the Kayenta Mine, a coal mine that provides raw material for the Navajo Generating Station. Many tribal members rely on the free coal to heat their homes during winter.

BRIAN LEDDY



Where the wild things swim — again

In a borderlands river, improved water quality allows an endangered fish to return

MAYA L. KAPOOR

ne clear November morning in 2015, Arizona Department of Game and Fish biologist Ross Timmons struggled to match the morphology of a fish that he'd caught in the shin-deep Santa Cruz River with that of the western mosquitofish, an exotic species that flourishes in Arizona's waterways. "All of a sudden I realized: My God, we've got a Gila topminnow," Timmons said. He'd caught a federally endangered fish, an exciting — and long-awaited — find.

For almost two decades, aquatic surveys in southern Arizona's upper Santa

in the cleaned-up upper Santa Cruz, along with western mosquitofish.

For Claire Zugmeyer, an ecologist with the Sonoran Institute, finding an endangered fish in clean effluent says something important for water in the West: "We can stack functions," Zugmeyer said. "The upper Santa Cruz River, so long seen as part of a sewage system, can also be wildlife habitat and a clean water source for many people."

From its headwaters in the grasslands of Arizona's San Rafael Valley, the 184mile Santa Cruz loops into Mexico, then



Biologists and researchers conduct an annual fish survey in the Lower Santa Cruz River to determine which species of fish are living in the river. RANDY METCALF/PIMA COUNTY COMMUNICATIONS OFFICE

Cruz River had yielded grim results. Most of the river's water comes from binational effluent from the Nogales International Wastewater Treatment Plant. With toxic levels of nitrogen, phosphorous, fecal contaminants and the heavy metal cadmium, the river was too polluted for most life. In 2008, only two fish turned up. "Not two fish species," clarified Doug Duncan, a biologist for the Fish and Wildlife Service. "Two fish."

In 2009, the plant completed renovations financed by the Environmental Protection Agency, and in 2015, Timmons and others found eight Gila topminnow. The following year, biologists found 135. Another native species, longfin dace, has reappeared

crosses back into the United States just east of Ambos Nogales (Nogales, Arizona, and Nogales, Sonora), where it is mostly dry. More than a century of groundwater pumping for irrigation and homes has converted a network of lagoons, marshes and ciénegas into a largely waterless channel that fills only during rainstorms.

In 1972, the Nogales International Wastewater Treatment Plant began releasing treated effluent into the river channel, creating 19 miles of perennial river flanked by riparian forest. But the facility struggled to keep up with increasing amounts of wastewater. While cottonwoods, willows and mesquite flourished on the river's banks, fish, invertebrates and amphibians dwindled in the toxic effluent. Fish downstream from the plant



suffered from unexplained skin and skeletal abnormalities.

In 2001, the Grand Canyon Chapter of the Sierra Club sued the EPA for failing to take action against the plant, which by then served nearly 200,000 residents but was operating under an expired permit that it had violated 128 times in five years. The 9th Circuit of Appeals ruled against the Sierra Club, finding that the EPA could decide which cases it wanted to prosecute or prioritize.

In 2005, an 8-mile stretch of plants shading the upper Santa Cruz River died. Alarmed, volunteers from Friends of the Santa Cruz River and researchers from the University of Arizona investigated. The cause for the plants' distress? In a word, schmutzdecke.

German for "dirt layer," schmutzdecke describes a film of bacteria and other microscopic life that forms in nitrogen-rich water. Schmutzdecke in the Santa Cruz prevented water from percolating down into the soil, and plants right next to the channel were dying of dehydration.

But since the treatment plant's renovation, phosphorous, nitrogen and cadmium levels have decreased. Dissolved oxygen levels have increased. Groundwater infiltration has improved. And fish are surviving in the upper Santa Cruz again.

Gila topminnow, 2-inch-long silvery fish, once swam creeks throughout the low deserts of Arizona, New Mexico, and Northern Mexico. When they were listed as endangered in 1967, topminnow had been decimated by groundwater depletion and by the introduced western mosquitofish, which eat topminnow and compete with them for resources.

Ironically, the human-use history of the upper Santa Cruz may now give Gila topminnow an advantage over mosquito-fish and other non-natives. "Development and urbanized areas shed a lot more water than wild areas," Duncan said. "Half our rain comes in three or four storms. And there's not a lot of vegetation holding back the big floods."

Native fish may be better adapted to handle those big flow pulses. In laboratory studies, topminnow moved to the side of structures and turned to face artificial floods, while mosquitofish, which evolved in less episodic streams, tried to stay midflow and were washed downstream.

Though not wild, the upper Santa Cruz is key to Arizona wildlife, since many species use riparian areas at least part of their lives. Rural communities also depend on well water from the Santa Cruz. As climate change creates a hotter, drier Southwest, prioritizing uses for clean effluent could become one of Arizona's growing challenges.

THE LATEST

Backstory

Starting in the mid-1990s, **Nevada** rancher Wayne Hage grazed his cows on public land without the necessary permits, saying his rights predated federal ownership. Hage, an outspoken government critic, passed away in 2006, but his son Wayne N. Hage continued the fight, illegally adding more cows annually — up to 648 by 2011. In 2016, after the Supreme Court declined to hear the case, an appeals court judge ruled that the Hages did indeed need permits ("One Sagebrush Rebellion flickers out — or does it?" HCN, 9/12/12).

Followup

In late February. a federal district judge in Nevada ended the saga, ordering the Hages to pay \$587,294 for "repeated willful unauthorized grazing." Chief Judge Gloria Navarro said the Hages' livestock must be removed by the end of March and cannot graze on public lands within Nevada again without written permission from the federal government. Judge Navarro is also presiding over Cliven Bundy's trial for the armed standoff with the Bureau of Land Management on his Bunkerville, Nevada, ranch in 2014.

ANNA V. SMITH



Return of the grizzly?

Feds consider transplanting bears into Washington's North Cascades

GLORIA DICKIE

A grizzly bear in the North Cascades Ecosystem, a few miles north of the U.S. border in Manning Provincial Park, British Columbia. Photographed by remote camera in April 2010.

B.C. MINISTRY OF ENVIRONMENT

n the summer of 1993, Bill Gaines, a young wildlife biologist with the U.S. Forest Service in Washington state, took a break from field work to climb in the Glacier Peaks Wilderness in the North Cascades. As he trekked through the remote, subalpine Napeequa Valley, Gaines spotted a furry face peering at him from behind a log some 40 feet away. It looked like a bear - cinnamon-colored, round face, small ears. But was that a shoulder hump? Gaines dropped his pack ("rather stupidly," he recalls) and tried to get a closer look. But the creature spun around and disappeared.

"(That's) the only time I've seen a bear in the Cascades where I could not say with certainty that it was a black bear," says Gaines. Although five to 10 grizzlies supposedly roam the mountains of northwest Washington, Gaines has snagged more than 700 bear hair samples without finding a single one. But that could change.

Following the listing of the Lower 48 grizzly population under the Endangered Species Act in 1975, the U.S. Fish and

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Wildlife Service identified the North Cascades and five other areas — Yellowstone, Selkirk, Cabinet-Yaak, Bitterroot and the Northern Continental Divide — as grizzly recovery zones. Since then, most zones have seen steady bear population growth thanks to strong state and federal management and financial investment in recovery initiatives. In 1997, a recovery plan was developed for the North Cascades zone, and 10 years later, the Washington Legislature appropriated funding for an environmental analysis of grizzly restoration. But state and federal agencies were unable to begin work quickly, and when the recession hit the following year, the state withdrew funding for the project. The recovery plan languished, and the North Cascades grizzly seemed destined to disappear completely.

But in 2014, things turned around. This time, when National Park Service and the Skagit Environmental Endowment Commission offered funding for an assessment, national, state and local agencies were ready. This January, the environmental impact statement was released, along with a draft plan to return the bears to the 6.3-million-acre North Cascades ecosystem. Now, biologists and advocates have renewed hope that one

day they'll see a viable grizzly population in the Cascades.

he draft plan offers four alternatives for recovery, with the aim of one day achieving a population of 200 grizzlies. They range from taking no action to augmenting the population with transplanted bears from northwestern Montana and/ or south-central British Columbia. One would see the initial translocation of 10 closely monitored bears with the intention of reaching 200 within 60 to 100 years. Another would move in five to seven bears per year for up to a decade. And an expedited approach could lead to 200 bears in a mere 25 years.

If the North Cascades bears are ever going to bounce back, says Wayne Kasworm, acting grizzly recovery coordinator for the U.S. Fish and Wildlife Service, it will take that kind of intervention. Though a small population has long existed on the British Columbia side of the Cascades, major river valleys, human development and railways have prevented those grizzlies from moving south across the border, says Kasworm. But trapping and moving bears can be difficult. Not all survive the stressful journey. Some slip their radio collars and wander off. Others attack livestock or pets. Transplanting grizzlies to restore a population isn't entirely new, though — and it's worked before.

In 1987, Kasworm was one of the first to propose augmenting the population in the Cabinet-Yaak zone, in northwestern Montana and northern Idaho, with bears from British Columbia's Flathead Valley. Eventually, residents and officials agreed to give it a chance, and in 1993, biologists captured a young female, fitted her with a radio collar, and drove her 150 miles through the night to the Cabinet Mountains. It was the first time a grizzly bear had ever been translocated in the United States. Since then, the Fish and Wildlife Service has introduced a total of 19 bears, and the Cabinet-Yaak population has successfully grown to over 45 individuals.

But some fear that grizzlies might harm hikers, horseback riders or mountain bikers in the North Cascades. Steve Darwood, a local outfitter, has been leading pack trips through the Pasayten and Sawtooth Wilderness for 47 years. "The people I service, they don't want to see grizzlies here — they have a good experience without them," he says. People should have a choice, he says; if they want to view grizzlies, they can visit Yellowstone or Canada.

The draft plan was open for comment through March 14, and eight open houses were held across Washington in February. Gaines, who retired from the Forest Service in 2011, remains hopeful that these efforts will bring grizzlies to the North Cascades. "This area is so, so wild," he says, "and yet we don't have that symbol of wilderness."

Reagan-era redux?

Scott Pruitt isn't the first EPA administrator who appears to be hostile to its very mission

CALLY CARSWELL

On March 25, 1983, business was booming at Harry's Liquor, Wine & Cheese, near the Environmental Protection Agency's Washington, D.C., headquarters. EPA employees were in the mood to party. The agency's top lawyer had just resigned, the latest casualty in a purge of political appointees. Weeks earlier, EPA Administrator Anne Gorsuch Burford had also resigned amid a ballooning controversy over her management of the Superfund program. Agency staff celebrated by springing for eight cases of champagne and six ounces of Russian caviar from Harry's. One employee even took vacation time to sell commemorative T-shirts to his colleagues. They read: "I Survived the Ice Queen's Acid Reign.'

The EPA was only a decade old when Gorsuch, as she was then known — she married Bureau of Land Management Director Robert Burford in 1983 — became its first female administrator. Gorsuch, a conservative state legislator from Colorado, promptly embroiled the agency in a political fight for its life. Even though Congress had recently expanded the EPA's workload, Gorsuch and the Reagan White House cut its budget and staff. Gorsuch derided the agency's approach to environmental protection as "bean counting," saying it measured success by the number of enforcement actions it took or regulations it issued rather than by what they achieved. She claimed that the agency could do more for the environment with fewer resources by giving states broader autonomy to decide how to curb pollution. But many career employees, environmentalists and congressional representatives didn't buy it, seeing Gorsuch's philosophy as window dressing for an industry-friendly agenda to neuter environmental laws.

The debate surrounding the EPA's future is strikingly similar today as Scott Pruitt assumes command. The former Oklahoma attorney general made a name for himself by fighting what he termed the "activist agenda" of former President Barack Obama's EPA. Pruitt filed 14 lawsuits against the agency, including suits to block its efforts to clear smog from national parks and wilderness areas and to cut carbon emissions from power plants. Like Gorsuch, Pruitt

thinks the EPA needs to relinquish more power to the states.

Some pro-environment Republicans agree, and hope Pruitt can empower the states to come up with innovative solutions to environmental problems. But many in the environmental community regard Pruitt's arrival at the EPA as a hostile takeover, and fear that the Trump administration's real goal is to dismantle the agency. Donald Trump said as much during the campaign, and in early March, the White House reportedly drafted a proposal to cut the EPA's staff by 20 percent and its budget by 25 percent.

"For someone like myself, it's like, 'Oh my God, do we really have to do this again?" " says Pat Parenteau, a Vermont Law School professor who was an environmental advocate in D.C. in the early 1980s. Trump's budget proposal mirrors the approach Gorsuch and the White House took during President Ronald Reagan's first years in office. Ultimately, they failed to dramatically transform the EPA, and federal environmental laws have mostly survived subsequent attacks. But the political winds have shifted since Reagan's time, in Congress as well as within the Republican Party. As Pruitt told the Conservation Political Action Conference last month, "The future ain't what it used to be."

This is how *The New York Times* described the EPA shortly before Gorsuch resigned: "Once noted for its efficiency and esprit, the agency is now demoralized and virtually inert."

Gorsuch and Reagan cut the agency's budget by about a quarter and its workforce by nearly 20 percent. Gorsuch also adopted a relaxed attitude toward enforcement: When a New Mexico oil refinery complained in a private meeting that it couldn't afford to comply with regulations requiring it to produce gasoline with lower lead levels, Gorsuch told the company it wouldn't be penalized for flouting the rules. The White House declined to discipline Gorsuch, but the incident contributed to the perception that Gorsuch was too cozy with polluters.

The issue came to a head over the Superfund program. Gorsuch took charge shortly after Superfund was created to clean up dangerously polluted places such as Love Canal, New York, a community built on top of a toxic waste dump whose residents suffered unusual illnesses and high rates of birth defects and miscarriages. The agency was supposed to develop a priority list of polluted sites and either force companies to clean them up or use money from the fund to do so itself.

Environmentalists and congressional Democrats believed that the cleanup progress was inexcusably slow, with penalties on polluters too light. At a defunct chemical waste processing facility in Indiana, for instance, Gorsuch's EPA allowed a company to pay only a third of the cost of cleaning up aboveground pollution, and then granted it immunity from liability for belowground waste. A couple years in, Please see EPA admin, page 23



Anne Gorsuch Burford, pictured with her husband, Robert Burford, who was director of the Bureau of Land Management, resigned March 9, 1983, as the head of the Environmental Protection Agency because "I became the issue." BETTMANN/GETTY IMAGES



A "megaload" in Idaho.

JESSICA ROBINSON /
NORTHWEST NEWS NETWORK

THE LATEST

Backstory

In 2010, energy companies planned to send "megaloads" shipments of oil refinery equipment about three times the size of a semi-truck along Idaho's Highway 12, a winding two-lane road that parallels two federally protected wild and scenic rivers through a national forest. Megaload opponents worried that widening the road and allowing the shipments, headed for Alberta's oil sands, would obstruct traffic, dump sediment into the rivers and turn the picturesque byway into an "industrial corridor" ("Monstertruck alley," HCN, 8/16/10). In 2013, the Nez

In 2013, the Nez
Perce Tribe and
environmental
groups sued the U.S.
Forest Service to
block the megaloads,
prompting a federal
judge to temporarily

Followup

halt the deliveries.

In late January, the Forest Service and the plaintiffs agreed on a settlement that effectively prohibits future megaloads.

In a letter to the Idaho Transportation Department, the agency laid out size restrictions for oversized shipments on Highway 12 that allow for hauling things like logs and farm equipment, but prohibit the more massive megaloads.

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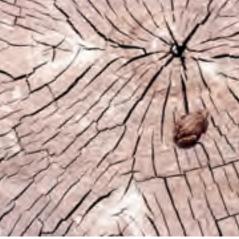
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PHOTOS: JOHN NICHOLS



MY HEART BELONGS TO NATURE: A MEMOIR IN PHOTOGRAPHS AND PROSE By John Nichols. 160 pages, hardcover: \$29.95. University of New Mexico Press, 2017.

My Heart Belongs to Nature offers readers a window into writer and photographer John Nichols' decades-long love affair with the mountain slopes, hidden fishing spots and backyard pastures of the Taos, New Mexico, area — as well as the family and friends with whom he shares these places. He moved to New Mexico as a young man and has been photographing and writing about the landscape ever since. The collection of 108 photographs includes an essay by Nichols, the irreverent author of several works of fiction and nonfiction, including the novel The Milagro Beanfield War. Extended captions accompany each image. On the cover, a blizzard of neon-yellow aspen leaves cascades through a high mountain clearing in late September. "No, this isn't a great picture, but it's a fabulous moment," Nichols writes of the photograph. In fact, as one could say of each of the book's images, it is both. EMILY BENSON

Crocus sightings, and *HCN* gets an editor-in-chief

The winter weather here in Colorado continues to throw us for a loop, with a generally snowless and unusually warm February. Signs of an early spring are popping up: tentative buds and a crocus or two. Another frost is likely, though, so we hope the fruit trees stay dormant a while longer. Especially the apricot tree in *HCN*'s backyard: Slow down so we can have fruit this year!

Reader **Dick Riger** dropped by the office on the only snowy day in February. Paonia, *HCN's* hometown, was a convenient stop on his tour around northern New Mexico and southwestern Colorado, where he visited friends, downhill skied and attended contra dance camp, activities he's had plenty of time to enjoy since retiring from his job at a fire department in Albuquerque, New Mexico, 24 years ago. Enjoy the slopes and do-si-dos!

Behind the scenes, some members of the HCN team are moving up and around. Board **President Dan Stonington** recently joined the Washington State Department of Natural Resources as its policy director in Olympia, Washington. Board member Esther Rivera Murdock is taking the helm of Rocky Mountain Conservancy as its new executive director - moving from Washington, D.C., to northern Colorado. closer to our neck of the woods. And Brian Calvert is also stepping into a new role, accepting a promotion from managing editor to editor-in-chief. "Brian has done a tremendous job assembling, managing and leading an extraordinary editorial team that is producing great stories every day online and continuing to improve our flagship magazine," Executive Director Paul Larmer says. "He has also displayed vision for what HCN can be in the national media environment. I look forward to seeing where Brian and the team take us

We do, too. Congratulations to all three of you on your new positions!



HCN's new editor-in-chief talks during an editorial meeting about the best way to tell deep stories about the West while staying on top of the news. BROOKE WARREN

And as if helping us churn out a magazine every two weeks isn't enough, our far-flung contributors have been busy with other projects. Contributing Editor Sarah Gilman's HCN travel essay, "Claustrophilia" (9/14/15), will be included in the anthology The Best Women's Travel Writing, Volume 11, to be published later this year. In "Claustrophilia," Sarah describes parallel experiences — life in a small mountain town and an adventure in Mongolia — finding that wide-open spaces bring people closer together. And frequent HCN contributor Laura Pritchett's new novel, The Blue Hour, came out in February. Laura writes for HCN's syndicated opinion service, Writers on the Range.

And, lastly, we have a correction from our Jan. 23 issue. In our story "Duty and #NoDAPL," we incorrectly characterized the amount of oil the Dakota Access Pipeline could carry. It would be able to transport 570,000 barrels, not gallons. *HCN* regrets the error.

—Anna V. Smith, for the staff

How a landmark investigation busted a Washington timber-poaching gang

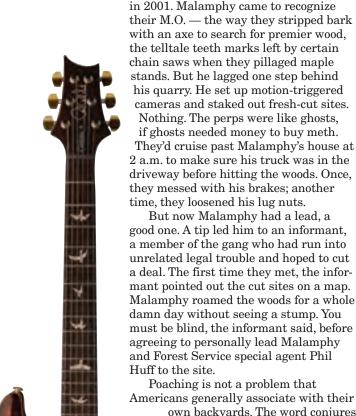
he clearing that tree poachers call the Slaughterhouse lies in the northwest corner of Washington's Gifford Pinchot National Forest, concealed behind the wall of hemlock and cedar that edges Forest Road 25. Ron Malamphy first visited the Slaughterhouse on a damp day near the end of winter in 2012. When he pushed into the glade, he found the scene matched the moniker. A jumble of felled bigleaf maple, chain-sawed into rough chunks, littered the forest floor, heartwood exposed to the chilly air. The most valuable wedges had been crudely hacked out, the rest left to rot. A patina of sawdust coated the moss and ferns. It looked, a federal prosecutor would say later, like a bomb had gone off.

Cutting bigleaf maple is generally legal, with the right permits, on private and state land in Washington. In national forests, however, protections on old growth keep the tree strictly off-limits. But in Gifford Pinchot, the law's arm didn't reach too far. Malamphy, who'd served as an officer with the U.S. Forest Service since 2000, patrolled the Cowlitz Valley Ranger District, a rough triangle formed by Mount Adams, Mount Rainier and Mount St. Helens. His jurisdiction covered 575,000 acres — one cop, responsible for an area almost twice the size of Los Angeles. He cruised the woods alone in a Dodge pickup, inspecting meth paraphernalia dumps, checking hunting licenses, conducting traffic stops. In some ways, the job has changed little since the early 20th century, when Pinchot himself dispatched a ragged band of recruits to help a strange new agency called the Forest Service wrangle illegal loggers and miners. Everyone Malamphy met in the woods carried a gun or a knife, and usually both. Backup was hours away. In 2008, a Forest Service officer was murdered by a tree-trimmer down a remote road on the Olympic Peninsula. Malamphy was a tough customer he had an offensive lineman's physique, and hands that could crack walnuts. Still, he kept his Glock .40 close.

A recently poached bigleaf maple tree in Capitol Forest near Olympia, Washington. After cutting a tree, poachers sometimes try to conceal their work by covering the stumps with moss. COURTESY ANNE MINDEN







Americans generally associate with their own backyards. The word conjures

The tree poachers began showing up

militiamen hacking off elephant tusks, woodsmen slaying tigers in Russian wilderness. But natural resource crime is rampant in the American West, too. Caviar traders target Columbia River sturgeon, Arizona snake-nappers snatch rattlers for the pet trade, and hunt-

> ers gun down bighorn sheep for their prized headgear. And it's not only fauna that falls prey. Illegal loggers have lopped off so many redwood burls - woody

protuberances that get carved into furniture — that desperate authorities shut down some California roads

in 2014 to deter them. The next year, a Montana man was convicted of smuggling over a thousand trees out of the Flathead National Forest. Oregon's Malheur, Rogue River and Willamette national forests have all been victims of timber poaching. Forest Service documents suggest that tree thievery costs the agency up to \$100 million each year. And no region, perhaps, is more afflicted than western Washington.

Malamphy and Huff wandered the Slaughterhouse, snapping photos and jotting notes. Malamphy felt his anger surge. These damn people. No respect for the resource. Some of the leafy casualties predated the arrival of Lewis and Clark. They'd provided food and shelter for generations of flying squirrels and martens, finches and grosbeaks, elk and deer, even the imperiled Puget Oregonian snail iust about everything that walked, crawled or flew in Gifford Pinchot. They'd shaded streams, nourished and stabilized soil, sequestered carbon. Now they were all dead, and for what? A few boards, heisted from land named after the Forest Service's founder. Now, Malamphy knew, he had a case.

n some ways, the story of bigleaf maple poaching starts with Carlos Santana. Yes, that Carlos Santana — the guitar player.

For 160 years after the Hudson's Bay Company established the Northwest's first sawmill in 1828, bigleaf maple was mostly neglected. Loggers coveted the stately conifers that blanketed the Pacific Coast: Douglas fir, spruce, hemlock, cedar straight and strong, ideal for ships' masts and the homes springing up in San Francisco. No one paid much attention to the scrappy, broad-canopied deciduous tree that crouched along coastal streams from California to British Columbia. Bigleaf maples are pretty, sure, with palmate leaves the size of dinner plates that turn fiery gold each fall. But their wood isn't especially durable, and their boughs shade out more conventionally valuable species. "Bigleaf maple was a weed tree," says Jim Freed, an emeritus professor of natural resources at Washington State University. "Landowners used to say, 'Oh, you found a bigleaf maple on my property? Well, can you get rid of it for me?" "

But Acer macrophyllum would not remain a weed forever. Around one in every 20 bigleaf maples contains "figure," gorgeous three-dimensional patterns etched in its grain. There are two primary variations: Quilted maple looks like ripples on water; flame maple resembles an aerial view of a rugged mountain range. No one is quite certain why figure occurs; the best guess is that it's genetic, or produced by environmental factors such as moisture and temperature. In the 1980s, woodworkers began to realize that figured maple looked stunning in furniture, veneer and, particularly, musical instruments. The wood's staunchest champion was Santana, whose custom-made Paul Reed Smith guitars were topped with figured bigleaf. When Santana performed his hit "Smooth" at the 2000 Grammys, he bent wailing quarter-notes on a PRS whose luminous wood came from the Olympic Peninsula.

Before long, bigleaf maple — at least those trees boasting precious figure became one of the most valuable species in the Northwest's forests. A two-foot-long block could reap \$500. Classified ads seeking maple cutters ran in local newspapers. Landowners hired consultants to prospect on their land. Boutique sawmills arose in logging towns.

Inevitably, the burgeoning legal trade was supplemented by the black market. Maples vanished from federal, state and county land; vacationing homeowners returned to find backyard trees mutilated. Private timber companies paid local cops to patrol their forests. In 2005, the state added maple to its Specialized Forest

Products Permit, the form that Washingtonians must possess to gather evergreen boughs, Christmas trees, mushrooms and other wild goods. The paper trail, in theory, would make the trade easier to monitor. But the law was easily sidestepped, and poaching continued.

Some of the thieves, says Freed, are Vietnam vets who have renounced society and eke out a meager living from the woods. The most prolific, though, are addicts looking to make a quick buck off so-called "meth maple." Although poachers haven't dented maple populations, the environmental impacts can be severe: Thieves carve out elaborate road networks that fragment forest habitat, and careless logging demolishes riparian areas, including sensitive salmon streams. "The people with the gold rush mentality, those are the ones that are causing the big problems," Freed says. "They're not just finding a tree or two while hunting deer — they're businesses. Whenever they catch those guys, I smile."

hrough the spring of 2012, Malamphy's informant fed the officer information. At first, Malamphy and Huff were skeptical; their source had a mile-long rap sheet. But the tips proved accurate. The informant showed them how the gang laid moss over stumps to camouflage exposed wood, and even predicted what trash they'd find befouling one clearing: empty cans of Miller beer.

Malamphy and Huff worked 12hour days, seven days a week, grilling a widening circle of suspects. Each witness snowballed into another, all of them eager to rat. There was no honor among thieves, Malamphy thought. It was a rough crowd - one uncooperative cutter, they heard, had been punched in the face, another choked. Some couldn't read or write.

Three names came up over and over again: Jimmy Miller, Ryan Justice and Kevin "Moose" Mullins. The loggers, the informant said, would stow contraband in their trunks and drive to a sawmill in Winlock, a scrappy town of 1,300, where they'd show up at first light, still powdered in sawdust. The mill, called J&L Tonewoods, was owned by a man named Harold Clause Kupers. On April 11, Huff and Malamphy paid Kupers a visit.

When they pulled into the driveway, the proprietor emerged to shake hands. "I was wondering when you guys were going to get here," Kupers said.

"Why would you say that?" Huff

"Just because of the business I am in," Kupers replied.

The mill owner welcomed the cops into his workshop, a garage filled with maple blocks. He seemed agreeable and friendly. The cops asked Kupers if he was buying stolen wood; Kupers acknowledged that he probably was. (Later, J&L Tonewoods' shop manager would estimate that about eight in 10 loads were bootlegged.) But, Kupers added, he'd



"PRS Guitars has worked closely with governing agencies and legal counsel to create a robust compliance program for sourcing wood and shipping finished goods."

COURTESY PRS GUITARS

developed a system to trace his supply chains: Loggers had to submit a consent form, crafted by Kupers' wife, signed by the landowner whose trees the cutter had harvested. The documents had no legal validity, however, and they were easily falsified. Malamphy later traced the address on one form to a maple-less farm. The name on another belonged to a local drifter.

Malamphy and Huff leafed through a three-ring binder filled with Kupers' custom-made slips. The binder contained just one official state forest products permit. You need to receive a state-sanctioned form from your sellers every time you buy a load, Malamphy told Kupers.

Later that week, on Friday the 13th, the mill owner emailed Phil Huff. "I do not condone theft and do what I can to not be involved with it," Kupers told the agent. He'd lost sleep over their conversation. He didn't want to keep buying stolen wood, he said, but he'd do it to help. "I need to know in writing that you want me to continue to purchase product from these people," he added. "I will keep our communication confidential. If for some reason you can not (sic) do that I will stop any dealings with them."

When he got Kupers' email, Huff swiftly called J&L Tonewoods. He couldn't give Kupers legal advice, he said, nor could he tell him from whom he should or shouldn't buy wood. The case was still under investigation, and he was an agent, not a lawyer. The conversation ended, and Kupers went on dealing stolen maple.

n enterprising poacher could

hardly design a friendlier environment than western Washington. Dense forests and crenellated coastline afford cover to outlaws. In the state's rural corners, people live close to the land, cutting firewood and harvesting salmon, deer and shellfish. The line between subsistence and theft is sometimes blurry. It's hard to find above-board work in the woods. In 2001, over 90 sawmills operated in Washington; by 2013, just 23 still hung on.

"We're seeing theft from out-of-work locals, people who are living hand-to-mouth, sometimes feeding a drug habit," says Larry Raedel, chief of enforcement for the Washington Department of Natural Resources. Raedel's 11 officers patrol an area larger than Connecticut. Every year, it seems, thieves find some odd new plant to purloin. A shrub called salal is big in the European flower industry; dried cascara bark is used as a laxative. No sooner do agents penetrate one black market than up pops another. "It's like squeezing a balloon," Raedel sighs.

Anne Minden has spent her career trying to puncture the balloon. Minden worked as a special agent for the U.S.





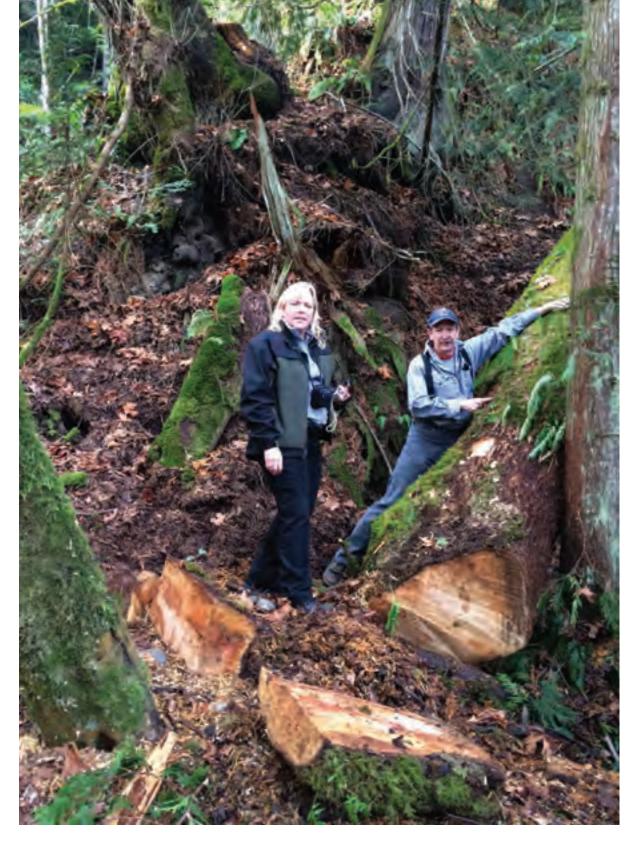
Forest Service until January 2014, when she retired to open a private firm from her home in Winthrop, on the east side of the Cascades. Golden eagles nest in her backvard; cougars loiter on her porch. Minden, a Portland native, grew up hiking in the Columbia Gorge. Her desire to work outdoors nudged her into the Forest Service. Her first paid job with the agency, in 1984, entailed patrolling campgrounds at the Ochoco National Forest in Oregon, watching for campers who cut unlawful firewood, shirked their fees and tossed garbage in the forest. "I'd dig through the trash and find scraps of paper with the names of the people who dumped it," Minden recalls. "Then I'd hand it off to law enforcement and they'd go write a ticket. There was something

really satisfying about that."

The agency eventually installed her in Okanogan National Forest (today the Okanogan-Wenatchee), 1.7 million acres of mountains and glacial lakes. Tree theft was rampant, particularly by private landowners who transgressed boundaries and extended cuts onto federal land — sometimes unwittingly, sometimes deliberately. "I think that people feel entitled, like it's not really stealing — it's just trees," Minden says. "But these trees belong to you, me, all of us. The public deserves to have its resources protected."

In the mid-1990s, as cedar and maple theft swept western Washington, Minden's jurisdiction spread to encompass the coastal rainforest of the Olympic Peninsula. Soon she was doing stakeouts, Chunks of maple, top, left as waste at the Slaughterhouse site in the Gifford Pinchot National Forest. Above, Ron Malamphy inspects blocks of wood believed to be poached at the Slaughterhouse, and found in the garage of Ryan Justice's grandmother's house.

U.S. DEPARTMENT OF JUSTICE, TOP; U.S. FOREST SERVICE PHOTO COURTESY PHIL HUFF



Former U.S. Forest Service special agent Anne Minden and measurement specialist Jeff Penman at a poaching site in Capitol Forest near Olympia, Washington. planting tracking devices on cars and collaborating with Customs agents on fly-overs. She learned that loggers cut quilt maple across the grain and flame maple with the grain; that stolen wood sometimes became dashboards in luxury cars; that nocturnal thieves ran their chain-saw exhaust into water buckets to muffle the roar. She crossed the Cascades so frequently that she developed ankle tendonitis in her pedal foot.

By her own estimation, Minden investigated around 35 timber theft cases during her Forest Service career — more than any agent in the Northwest. Along the way, she racked up busts: Fifty-year-old John Mark Randall, a Fagin of the

forest, received 18 months in prison when he was caught teaching a gang of teenagers to steal trees. Reid Johnston, who was nailed cutting maple — and a 340-yearold Doug fir — in Olympic National Forest, got a year and a day.

But arresting rogue loggers remained a long-term losing strategy. As long as mills could traffic stolen maple without consequence, cutters would always materialize to meet demand. Ending maple theft required snapping a link further along the supply chain. The problem was that prosecuting mill owners required proving that they knowingly bought stolen goods — and it was usually impossible to disprove their pleas of ignorance.

(Raedel, the state enforcement chief, hasn't brought a single case against a mill owner in his 11 years on the job.) The most crucial battle in the maple wars, Minden knew, would happen in a sawmill.

arold Kupers is not the sort of mill owner you'd peg for a thief. Kupers grew up in Forks, Washington, a Peninsula town known only for lumber until Twilight linked it forever with teen vampires. Kupers is a law enforcement blueblood: His father was a lifelong employee of the Washington Department of Corrections, his father-in-law was a state patrolman, and his wife, Melinda, has worked for Corrections for a quartercentury. Kupers himself worked in a state prison for a decade; he so cherished the job that he'd occasionally be turned away for showing up too early. The bureaucracy wore him down, though, and he guit to fell trees. When Corrections promoted Melinda to a job in Vancouver, Washington, their family of five relocated to nearby Winlock. Kupers got involved in the community, lecturing at-risk youth in local schools, drawing on his Corrections experience to keep kids on the straightand-narrow.

As Kupers gained timber experience, he grew acquainted with figured maple, and in the late 1990s he began cutting and selling legal blocks. Compared to his meager earnings as a logger, he realized, the mills were raking it in. He started a couple of businesses, selling wood online and, with a partner, directly to guitarmakers. When the partnership dissolved, he opened J&L Tonewoods with a friend named Tim. They named the company after their daughters' first initials.

J&L Tonewoods ran a simple operation. Sellers brought 24-inch blocks of figured wood, which Kupers scanned for defects: stains, knots, woodpecker holes. He paid with checks, typically a few hundred bucks per block. Then he dried the wood in a kiln and sawed it down into bookmatched sets, mirror-image pieces that, in the hands of an instrument manufacturer, would become guitar bodies fit for the stage. It was steady business: Profit margins, Kupers would say later, ran around 200 percent. In December 2011, though, the partnership split up. Kupers said he wanted to grow the business too quickly for Tim's taste; for his part, Tim told investigators he was tired of buying dubious wood from "crackheads."

Throughout 2012 and 2013, Mullins, Justice and Miller continued to sell maple to J&L Tonewoods. Kupers seemed to remain convinced that he was aiding the investigation, occasionally emailing Malamphy and Huff when the suspects appeared at his shop. Once he even inspected clearings with the agents, and identified grease pencil marks scrawled on stumps as Ryan Justice's handiwork. The noose began to close around the cutters. Mullins had a couple of close

scrapes: Officers tracked his bootprints to maple trees with freshly peeled bark in Gifford Pinchot and narrowly missed catching him in the act. Now it was only a matter of time.

Kupers, meanwhile, kept buying wood. In December 2013, Phil Huff traveled to Winlock to interview the mill owner again. This time, Anne Minden led the conversation. Kupers was warier than before, and seemed defensive. Minden prodded him to open up. Huff took notes, transcribing Kupers' words as the mill owner explained again how J&L Tonewoods operated.

Rarely has an interview subject done more damage to his cause. According to Forest Service reports, Kupers described himself as "kind of a rebel," told the agents that he "didn't believe in" the maple-permitting laws, and said that he'd deliberately avoided learning the rules so that he could claim ignorance. Minden gave him just enough rope to hang himself. Later that day, with the details still fresh in their minds, the two agents retreated to a motel, plugged in their computers, and wrote a memorandum describing the conversation. When Huff next visited Kupers, he served him an indictment.

he prosecution of Harold Clause Kupers has its legal roots at the turn of the 20th century, when wildlife trafficking forced America to confront the finitude of its natural resources. Beaver and bison had been virtually exterminated, and rapacious plume hunters were plundering egrets and other birds for the hat industry. In 1900, Rep. John Lacey of Iowa introduced a bill that outlawed trading illegally harvested animals across state lines; President William McKinley signed the Lacey Act into law on May 25. A year later, the act claimed its first major victory, when 48 Illinois men were arrested for shipping over 22,000 ducks, quail and grouse. No longer did you have to pull the trigger to be prosecuted for wildlife crime.

The Lacey Act evolved over the years. In 1935, it was expanded to forbid trading animals taken illegally overseas. Fishermen who landed undersized Honduran lobsters, trophy hunters peddling elephant tusks, and shark fin smugglers in Guam have been prosecuted for Lacey violations. In 2008, the law received another tweak, this time to include illegally harvested wood. The next year, federal agents raided the Nashville offices of Gibson Guitars, where they seized a shipment of Madagascar ebony. In 2015, the flooring giant Lumber Liquidators pleaded guilty to purchasing wood poached from Russia. Environmentalists and lumber unions have hailed the law's expansion, which appears to have curtailed illegal logging in some forests and coaxed American companies to patronize reliable domestic mills.

While the Lacey Act's new provisions were reshaping international timber



■ Eleanor Dormontt of the University of Adelaide inspects a chunk of quilted bigleaf maple left at the theft site in the Gifford Pinchot National Forest.

▼ A surveillance photograph of the J&L Tonewoods mill in Winlock, Washington.

U.S. FOREST SERVICE PHOTO COURTESY PHIL HUFF

OF ADELAIDE

markets, the groundwork was being laid for their application at home. The J&L Tonewoods case took an important turn in the summer of 2012, when Ron Malamphy made a crucial discovery — not in the forest, but in the pages of *TimberWest Magazine*, a trade journal that ran an article about extracting DNA from lumber. Malamphy contacted the firm mentioned in the story, a Singapore-based company called Double Helix Tracking Technolo-

gies. Might it be possible, he wondered, to match genetic material from wood in Kupers' shop with stumps in Gifford Pinchot, to prove the maple had been stolen? Indeed it might. When scientists at Australia's University of Adelaide compared the samples, they found the pieces contained the same genes. The odds that the match was merely a coincidence were infinitesimal.

Such DNA technology isn't merely



Conservation scientist Shiloh Halsey makes his way across the downed logs and abandoned chunks of maple in the Slaughterhouse in the Gifford Pinchot National Forest.

significant in the J&L Tonewoods case; it also suggests the value of genetics in protecting timber supply chains. The Lacey Act requires companies to exercise "due care" to ensure they're purchasing legal wood, but the phrase has no specific legal definition. "That used to just mean doing the right thing: Don't take shipments in cash on a dock at midnight, that kind of thing," says Chip Barber, director of the Forest Legality Initiative at the World Resources Institute. In the Gibson and Lumber Liquidators cases, however, due care was defined more narrowly; among other stipulations, the companies were enjoined to keep more meticulous records and gather better information about their suppliers. As genetic testing becomes more sophisticated, it's not far-fetched to imagine companies routinely using DNA to confirm the origins of their timber. "This is something that's going to be used a lot more in the future," predicts Barber.

Whether it will be used by the Forest Service remains an open question. In January, Rep. Jason Chaffetz, R-Utah, introduced H.R. 622, a bill that would strip the agency, along with the Bureau of Land Management, of its policing powers and replace them with block grants to local sheriff's departments. The bill has been blasted by sportsmen and former federal officers, who doubt that county sheriffs have the inclination or the expertise to patrol federal acres. Land Tawney, president and CEO of Backcountry Hunters & Anglers, recently compared Chaffetz's

bill to "asking your dentist to do gallbladder surgery." Minden shares those fears. "What you're going to end up with," she says, "is little to no enforcement of natural resource law on public lands."

n November 2015, nearly four years after Malamphy's informant led him to the Slaughterhouse, Harold Clause Kupers pleaded guilty to breaking the Lacey Act — the first mill owner ever found to have violated the act by shipping illegal wood across state lines. The purloined maple had gone to two companies, both of which professed ignorance: North American Wood Products, an Oregon-based purveyor, and PRS Guitars, the Maryland manufacturer that supplies Carlos Santana, Kupers had earned \$499,414 after Huff and Malamphy's first visit. The case raised eyebrows not only within Northwestern woodworking networks, but in international lumber markets. "This shows our trading partners that adding wood to Lacey wasn't a protectionist move to exclude tropical timber in favor of American timber," says WRI's Barber. "It's also a law that's being enforced domestically."

Federal prosecutors sought a two-year sentence, comparing Kupers, in his willingness to deal with obvious poachers, to a gun-shop owner who sold firearms to convicted felons without performing background checks. Ultimately, he was sentenced to six months at the Federal Cor-

rectional Institution in Sheridan, Oregon, followed by six months of home detention and three years of supervision. He also owed the government restitution for the stolen wood, to the tune of \$159,692. The cutters faced time, too: Ryan Justice received 15 months in prison; Miller got 6 months; and Mullins got 30 days. "Those guys got off pretty damn easy, is all I can say," gripes Malamphy, who retired soon after the case closed.

It didn't feel that way to Kupers. When I called the erstwhile mill owner this past December, he'd been back home in Winlock for a month. He spoke clearly and deliberately, in a Pacific Coast accent that rounded his vowels. Kupers' version of the case diverged in several significant ways from the official account. He'd been an equal partner in the investigation from the get-go, he told me, and his most incriminating remarks had been taken out of context. "I assisted them 100 percent, and it totally backfired on me," he insisted. "Before they met me, they had no knowledge of maple."

Harold Kupers had broken the law, it was true, and profited handsomely. But it was also possible to understand why he felt like he'd been sacrificed to advance the righteous cause of forest conservation. Compared to, say, Lumber Liquidators, J&L Tonewoods was a featherweight operation; that executives at the country's largest hardwood flooring company could escape with mere fines for breaking the same law as Kupers seemed an asymmet-

rical dispensation of justice — especially considering that global demand for building materials represents a far greater threat than the niche music-wood market.

I asked Kupers if he would work with maple again. The terms of his probation forbid him from owning a mill, he said. These days, he's making furniture, wine racks and urns in his shop. He spends a few hours a week at a tavern he owns in Winlock. Most of the community, he claimed, agreed that he'd gotten a raw deal. "But still, there's a percentage of the population that walks on the other side of the sidewalk," he said. "And it kills me. It kills me."

lthough bigleaf maple is abundant today, it faces a threat greater than poachers. In 2010, Amy Ramsey, a forest pathologist at the Washington Department of Natural Resources, received a wave of anxious calls from landowners whose maples were succumbing to a mysterious disease. Ramsey found the same symptoms over and over again: Sick maples grew smaller leaves that turned reddish-yellow around their withered margins, and ailing trees dumped enormous seed crops in a last-ditch attempt to spread their progeny. This was dieback, an arboreal affliction that begins in a tree's peripheral limbs and creeps toward the crown's center, like a blood clot traveling to the heart.

Ramsey tested and rejected hypoth-

eses: It's a wilt disease; no, it's a canker-causing fungus; no, it's heart-rot. Then, in 2015, drought settled over the Northwest, and the die-off intensified. That lent credence to the most alarming theory of all. "We're wondering if they're the canary in the coal mine for forest change in the face of climate change," Ramsey says. In a century, how much bigleaf maple will remain to steal?

Or perhaps the maple black market will become obsolete, its contraband replaced by reputable tree farms. Steve McMinn, founder of a Skagit Valley-based mill called Pacific Rim Tonewoods, recently teamed with Canadian researchers to plant cuttings from eight lines of maple, in hopes that the beautiful patterns are, in fact, genetic. When the trees reach around five inches in diameter, McMinn's team should be able to tell whether figure is heritable; if it is, growing music-wood could someday be as simple as farming tomatoes. "Our goal is that this valley, in 30 years, is the region that people come to for well-tended figured maple," McMinn says.

For now, though, the illegal trade chugs along, fueled by the twinned motives of profit and addiction. "It's definitely still going on," Malamphy says. "There's too much money in it."

On a gloomy February afternoon, I drove the winding, climbing road from Randle into Gifford Pinchot National Forest. Dime-sized snowflakes danced through the cedars. I'd come with a guide: Shiloh Halsey, conservation science director at the Cascade Forest Conservancy. We parked near a beat-up campground sign and wandered into the woods, squeezing through thickets of devil's club and vaulting logs. Soon the canopy opened, as though the woods had been slammed by a windstorm. The maple chunks looked darker and more rotten than they'd been four years ago, but they were otherwise identical to pictures in the Forest Service reports I'd browsed. This was it, or part of it: the Slaughterhouse.

Halsey and I picked through the clearing, stooping to inspect scattered blocks and the odd snails. "These are some old trees," he murmured, examining the widest stump. Five years ago the hardwood would have been prime habitat for owls, woodpeckers, fishers. The stump had sprouted a new cluster of head-high shoots, though Halsey doubted that any would grow into a robust tree.

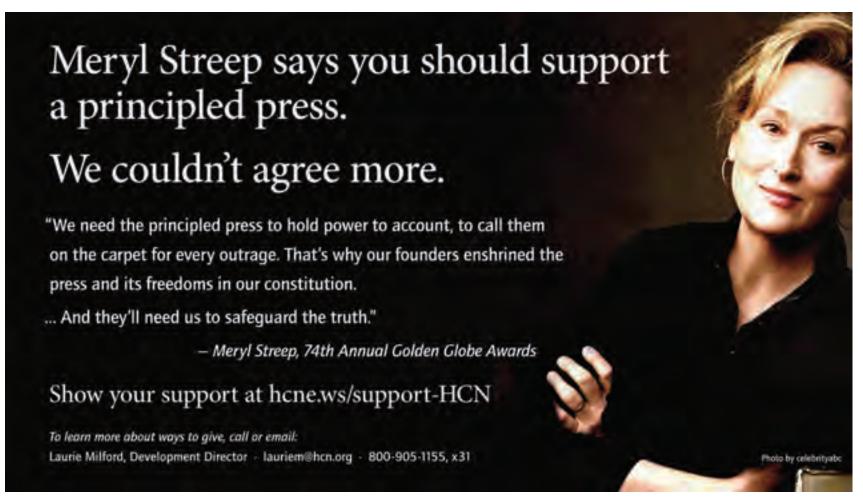
Surviving maples ringed the arena like sentinels, twisted and mossy. It was hard to know how to feel: The carnage was deplorable, but we'd seen authorized clearcuts on the way in whose scale dwarfed this disturbance. If you squinted, you could imagine the site in 10 years, or 200 — the decomposing blocks melting into the soil, the prickly shrubs ceding to Doug firs, the canopy resealing itself, the forest whole. On this day, though, all we saw overhead was low sky and swirling flakes, falling with a hiss on the wet mulch of maple leaves that blanketed the clearing.



Correspondent Ben Goldfarb writes from New Haven, Connecticut.

@ @ben_a_qoldfarb

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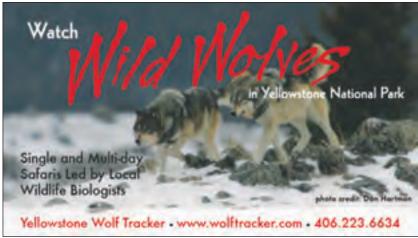
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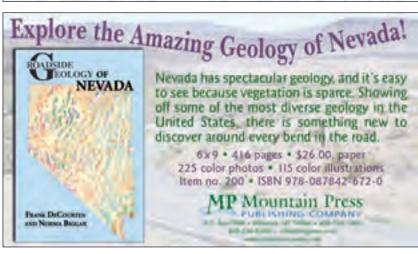
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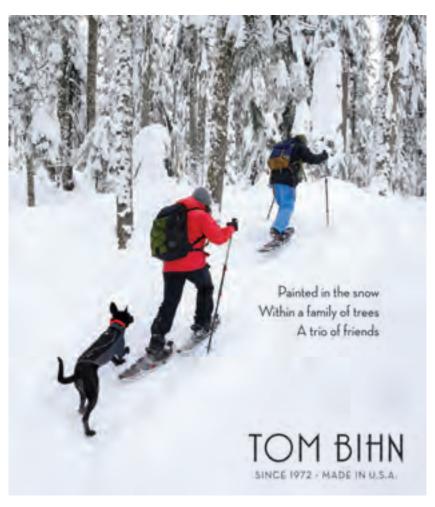
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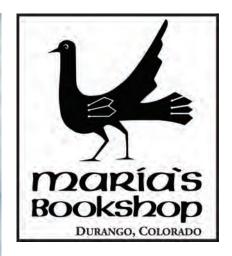
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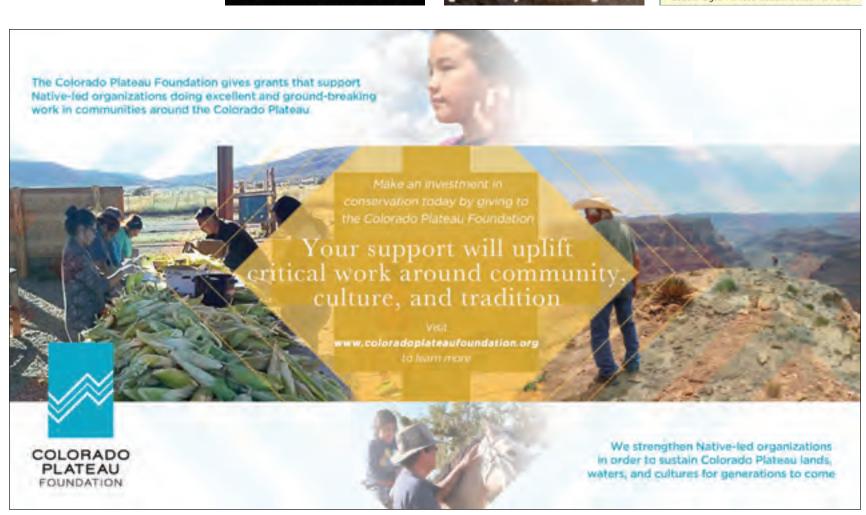
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EPA admin continued from page 9

the agency still hadn't set up a registry to track health problems associated with hazardous waste pollution, as required by law.

Accusations of mismanagement led to multiple congressional investigations, and the FBI also investigated the agency for shredding documents related to the Superfund probes. Rita Lavelle, the Gorsuch deputy who headed Superfund, came under fire for accepting expensive dinners from industry and striking sweetheart deals with those companies. She later served time in jail for lying to Congress about a conflict of interest involving a former employer. Gorsuch herself was cited by Congress for contempt after refusing to turn over documents during the investigations. By Gorsuch's own admission, the resulting political meltdown paralyzed the agency, preventing it from getting any actual work done. Gorsuch resigned in 1983 after learning the Justice Department wouldn't defend her on the contempt charge. It was just two years into Reagan's presidency.

"The Reagan people came into office with the same kind of fervor for rolling back environmental regulations that we're seeing now," says Richard Avres, an environmental lawyer who headed the Natural Resources Defense Council's air quality programs at the time. But their success was limited, partly due to the Superfund controversy, which emerged quickly and inhibited the administration's ability to aggressively pursue its deregulation agenda. Their efforts also ran up against a moderate Republican Senate and a House controlled by Democrats, which worked doggedly to expose industry favoritism at EPA and keep accusations about mismanagement in the public eye. After Gorsuch left, the White House decided the rewards of waging war on environmental laws weren't worth the political price.

"Reagan was anti-regulation," Parenteau says, "but he didn't have a deep hostility or resentment about environmental laws." Reagan replaced Gorsuch with William Ruckelshaus, a moderate known for his integrity. Ruckelshaus, who was respected on both sides of the aisle, helped restore the agency's credibility.

The Republican presidents since Reagan — George H.W. Bush and George W. Bush — mostly chose EPA administrators who were experienced environmental professionals, consistent with the Ruckelshaus model. Pruitt, on the other hand, appears to have been selected for his deep distrust of the agency.

In today's Republican Party, he's not an outlier. "It's probably best to see the Pruitt EPA not as a special Donald Trump twist on the EPA, but as the latest evolution in a larger conservative attack on the agency," says Paul Sabin, a Yale University environmental historian. Gorsuch and her ideological brother James Watt, who was Rea-



gan's Interior secretary until 1983, were part of the vanguard of the conservative resistance to the landmark environmental laws passed in the 1970s, which vastly expanded the federal government's role in protecting air, water and biodiversity. Since then, the tactics for undermining these protections have grown more sophisticated and been widely embraced by the Republican Party, Sabin says. Today, a formidable network of think tanks and rightwing media pushes deregulation at the state and federal level, and critics attack the science that underlies environmental regulation. "A major shift in the party was with the '94 election and the Gingrich revolution," Sabin says. "That's when the party gets more purified in its hostility toward environmental regulation."

That hostility has reached an apex in the current Congress, which is unlikely to be the check on EPA inaction that it was with Gorsuch, leaving the job primarily to environmental attorneys and the courts. Some House Republicans are intent on pursuing their own deregulatory agenda, with a recently introduced bill to abolish the EPA altogether, as well as talk of repealing and replacing the Endangered Species Act and a recent vote to block EPA rules to protect streams from pollution from coal mines.

Pruitt, for his part, declined to name a single EPA regulation he supports during his confirmation hearing. He also refused to promise to continue to allow California to enact its own strict clean-car standards, despite his stated commitment to states' rights. The priorities he's highlighted since include rolling back Obama-era

clean water rules and carbon regulations, though he has also promised to promote Superfund cleanups, water infrastructure improvements and compliance with existing air-quality standards.

"The idea that he will just slash and burn the agency, I think, is mistaken," says Brent Fewell, a D.C. water lawyer and philosophical conservative who served in the number-two spot in the EPA's Office of Water under George W. Bush. "It's not that he hates the EPA. He hates overreach." There are gray areas in the Clean Air and Water acts that the EPA has tried to fill in over time, and Fewell thinks Pruitt has a legitimate point that it's sometimes gone too far.

Environmentalists tend to hear calls for state rights as code for fewer constraints on industry and more pollution. But Fewell says those outcomes aren't inevitable. He's optimistic about states assuming an expanded role in environmental protection. States already shoulder a lot of responsibility for implementing federal environmental regulations, but Fewell says the EPA tends to micromanage them, not giving them much freedom to devise their own methods of meeting clean air or water standards. That breeds resentment: "There's a lot of fighting. I believe if the states are incentivized to be more creative, we could see more environmental protection."

Of course, it's possible that while, in theory, a more restrained EPA could inspire states to become more proactive, in practice some states will step up and others will step back. Gorsuch's tenure didn't last long enough to let that experiment play out. If Pruitt's does, we may soon learn how closely theory and practice align. \square

Acting EPA Administrator Catherine McCabe attaches a lapel pin to EPA **Administrator Scott** Pruitt at the agency's headquarters before he addressed agency employees in February. Pruitt, a longtime critic of the EPA, was confirmed after a contentious fight in the Senate. AARON P. BERNSTEIN / GETTY IMAGES



Montana deals with its antiquated laws on rape



OPINION BY GABRIEL FURSHONG

Doubleday published the book, *Missoula*: Rape and the Justice System in a College Town, in May 2015. Written by Jon Krakauer, it quickly jumped to number three on The New York Times bestseller list in the first week of sales and also helped fuel a national dialogue on the way sexual assault is handled at col-

Missoula focused on the U.S. Department of Justice's investigation into the handling of rape cases by the University of Montana, the Missoula County Attorney's Office and the Missoula Police Department. In May 2012, when the federal agency first announced the investigation, citing 80 reported rape cases in the last three years as justification, many residents of this liberal college community were shocked by the news. Others were not surprised.

"Women have been working on this issue for a hundred years," says Montana Sen. Diane Sands, "and I've personally been working on the issue for decades."

Sands, a Democrat, represents Senate District 49, which covers western Missoula, in the state Legislature. The mostly urban district lies just a couple miles from the University of Montana, where Sands studied anthropology from 1971 to 1974. A determined student organizer, she helped found the campus Women's Center and worked to raise

awareness about sexual assault and gender discrimination.

Overall, progress has been slow, according to Sands. "Women can raise their voices until hell freezes over," she says. "But it's only when men stand up and take responsibility for regulating other men that change begins to occur."

So, when the country's top cop, Attorney General Eric Holder, announced the Justice Department's investigation, Sands wondered whether a larger change was finally underway. Her hopes were realized two years later when the agency reached separate agreements with the Missoula City Police Department, the University of Montana Police Department and the Missoula County Attorney's Office on how to fairly and effectively handle reports of sexual as-

In addition, Montana Attorney General Tim Fox, a Republican, agreed to monitor the county's efforts to implement the agreement, thus adding to a growing list of men willing to confront sexual assault. "The fact is that 97 percent of victims are women, so it's important for men to step up," says Fox, who announced the county's full compliance with the agreement in August of last

By then, Sands had teamed up with Fox to devise and deploy her own plan

Montana Sen. Diane Sands is leading efforts to update her state's sexual assault laws.

KURT WILSON/MISSOULIAN

of action. "There are times when you can change certain things," she says, "so as a person who works in the political arena, I'm looking for those moments where we can move forward."

The Montana Legislature meets biannually, in odd-numbered years, from January through April. In 2015, Sands wrote and passed a bill requiring the Law and Justice Interim Committee to study sexual violence and recommend updates to Montana's "antiquated" laws on sexual crimes. Fox supported the bill, and it passed by overwhelming majorities in the House and Senate.

Sands served as vice chair of the interim committee, which recommended seven bills for the 2017 session, including Senate Bill 29, which would change Montana's sexual assault laws to comport with the U.S. Military Code of Conduct. Among other changes, the bill would amend the definition of sexual intercourse without consent, which currently says that a person must be "compelled by force," implying that one must try to physically fight back in order to be considered a victim of rape. The bill also, for the first time, defines consent as "words or overt actions indicating a freely given agreement to have sexual intercourse or sexual contact" with another

According to Jennifer Clark, a sexual crimes and domestic violence prosecutor for Missoula County, these changes in Montana law would accurately reflect "the reality of the cases" reported to her office. "In most of the cases we see, a victim will indicate their lack of consent in many ways, either verbally or nonverbally," she explained in her testimony to the Senate Law and Justice Committee. But because consent is not currently defined in statute, Clark often has to tell victims, who may have been paralyzed by fear or were otherwise incapacitated, "Yes, you were raped, but legally, you were not."

Sands' bill seeks to keep painful conversations like this from happening in the future. It passed the Senate 46-0 on Jan. 19 and is soon expected to pass the House. Montana Gov. Steve Bullock has made it clear he will approve the measure if given the opportunity. If that day comes, Sands will be in the room to watch the ink dry on his signature.

"People aren't looking the other way anymore," she says. "It's a change in the law that has waited a century."

Gabriel Furshong writes from Helena, Montana.

Writers on the Range is a syndicated service of High Country News, providing three opinion columns each week to more than 200 media outlets around the West. For more information, contact Betsy Marston, betsym@hcn.org, 970-527-4898.

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A tale of two Roosevelts

At his recent confirmation hearings. Donald Trump's new Interior Secretary, former Rep. Ryan Zinke, R-Mont., frequently evoked his admiration for Theodore Roosevelt, comparing their shared devotion to wildlife conservation. While what the future holds remains to be seen, few presidents are more closely associated with protecting nature than Theodore Roosevelt. Until recently, though, his cousin, Franklin D. Roosevelt, remained relatively unsung as a conservationist. Now, two books examine how these men helped preserve the nation's natural treasures and build public institutions dedicated to the conservation of wildlife and wilderness. The books provide an unexpected contrast in heft Darrin Lunde's The Naturalist weighs in at a reasonable 352 pages, largely because it confines itself to exploring Theodore Roosevelt's work as a private citizen. Douglas Brinkley, however, tackles the entirety of Franklin Roosevelt's conservation career, starting from his childhood, making for an exhaustive 752page volume, Rightful Heritage.

TR's eight years in the White House are almost entirely ignored in *The Naturalist*, though as president he enacted powerful conservation laws and designated over 50 national parks. Instead, the book focuses on the time he spent hunting and writing — pursuits that were impossible for him to enjoy as commander-inchief. Lunde traces Theodore's love of nature to his youth, when the sickly boy

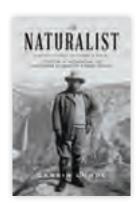
acquired a seal skull as his first natural specimen. He championed scientific inquiry, writing books and pamphlets on birds and mammals throughout his lifetime. A trilogy of hunting books penned and published in the 1890s highlights TR's ability to articulate conservation principles, without neglecting the economic benefits of properly managing the country's natural resources. "I wanted to make a plea for manliness and simplicity and delight in a vigorous outdoor life as well as to try to sketch the feeling that the wilderness, with its great rivers, great mountains, great forests, and great prairies, leaves on one," he wrote. "The slaughter of the game, though necessary in order to give a needed touch of salt to the affair, is subsidiary after all." This kind of thinking placed the 26th president nearly 50 years ahead of his peers in conservation theory. His cousin would unite the two concepts during the Great Depression with environmental public works projects like the Civilian Conservation Corps, also known as FDR's "tree army."

Both Roosevelts loved the great outdoors — Franklin fancied himself a Hudson River silviculturist and farmer, while Theodore built much of his public persona as an outdoorsman. But Brinkley and Lunde suggest that life-altering illnesses profoundly shaped their views on preserving the wilderness. Plagued by asthma as a child, young Theodore spent most of his time indoors, reading adventure tales in his father's windowless library, which fueled his dreams of life in the country. Had he been healthy, he would have spent more time outdoors, less time reading, and, Lunde suggests, might not have been as passionate about wild places as an adult. His father, Theodore Roosevelt Sr., was a "muscular Christian" who believed that a righteous life included moral and physical fitness. He was convinced of the curative power of nature and often took his son on "restorative" rides in open air-carriages. As an adult, Theodore advanced from weekend backpacking excursions to month-long treks in the wild, often virtually unassisted.

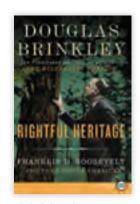
After decades spent sailing, fishing and tree planting, Franklin's devotion to the outdoors only intensified after polio ravaged his limbs at the age of 39. He harnessed the therapeutic powers of nature, and though bathing in the buoyant waters of Warm Springs, Georgia, did not bring about a miraculous recovery, his improvement helped convince him that all Americans were equally entitled to enjoy such natural treasures. Ironically, FDR's own planned super-roads and hydraulic power plants would cut through the wilderness and disturb wildlife populations, impeding the animals' abilities to migrate and repopulate. Yet no president has done more to protect America's wilderness; Brinkley's appendices detail every land parcel he placed under federal protection, and it takes 100 pages to list them all.

"Congress doesn't pass legislation anymore, they just wave at the bills as they go by," mused humorist Will Rogers on FDR's frequent use of executive privilege. It seemed there wasn't an open space or imperiled creature that the president didn't want to protect, and from 1933 to 1945, he conserved 118 million acres, caused more than 3 billion trees to be planted, and founded hundreds of federal migratory bird sanctuaries. Cedar Breaks, Joshua Tree, Aransas and many other jewels of the natural world owe their protection to FDR. These battles weren't won easily; Brinkley illustrates the resistance the president faced from Congress, and the bureaucratic iiuiitsu required to carry out his environmental agenda.

Convincing Americans of the value of wilderness preservation was (and remains) an uphill battle. The Roosevelts cleverly invoked practical arguments, noting that conservation and restoration could aid ordinary people by providing long-term solutions to problems like soil erosion and wildlife depletion. They also implored their fellow citizens to think of future generations. Still, in the end, the reader comes away believing that these two presidents fought so hard for wilderness, simply because they truly loved it.



The Naturalist:
Theodore Roosevelt and
the Rise of American
Natural History,
Darrin Lunde
352 pages, hardcover:
\$28.
Crown Publishing, 2016.



Rightful Heritage: Franklin D. Roosevelt and the Land of America, Douglas Brinkley 752 pages, hardcover: \$35. Harper, 2016.



President Franklin D. Roosevelt and Eleanor Roosevelt drive past Mount Hood on their way to dedicate Timberline Lodge in 1937. There, Roosevelt said, "I take very great pleasure in dedicating this Lodge, not only as a new adjunct of our National Forests, but also as a place to play for generations of Americans in the days to come." BETTIMANN/GETTY IMAGES

BY BARBARA BASBANES RICHTER

Arctic owling Discovering the North through its most iconic birds

here are two ways I know to see a snowy owl. The first is this: If you're listening to music and

cleaning the house on a rainy weekend afternoon and the radio station offers the ninth caller tickets to a concert, pick up the phone and dial. The concert will be in an old barn tucked into a web of back

roads, and it will snow the night of the concert — soft, fat flakes that swirl in the glowing light from the barn windows. On the way home at 2 a.m., your friend will be driving his red truck slow down roads draped with lacy branches, dark except for the twin beams of his headlights. You're sleepy; your attention drifts. And then an owl the color of snow drops in front of the windshield. For a fraction of a moment, it hangs in front of you, its wingspan as wide as the truck. Then, as if someone pulled the puppet strings, it lifts and is gone.

The second way requires less luck and more money. First, you have to travel to Utqiagvik, Alaska (formerly Barrow), the northernmost town in the United States and the only snowy owl breeding ground in the country. If the weather is bad, this could take days. The plane from Anchorage to Utqiagvik might, as mine did, cross the Arctic Circle, dip tantalizingly close to the Arctic Ocean, then turn around. Too stormy to land.

So we spend the night in Anchorage and try again the next day. Many of the passengers are on their way to work at the oil rigs of Prudhoe Bay and have flown this route a hundred times. They doze off or drink rum-and-Cokes, inured to the landscape below, while over in seat 20A, I touch my forehead to the cold Plexiglas, not inured at all. It's my first visit to the Arctic.

We soar without fanfare across the Arctic Circle and over the Brooks Range, treeless mountains that stretch 600 miles east to west. Glaciers run like racetracks through the valleys, and the mountains look like they go on forever — until they don't. At their northern edge, rivers spool from the mountains and unfurl onto an enormous plain, where they disperse into depressions small and large, oblong and round, each reflecting the sun until the world below is dappled with pools of light.

As we near the coast, the mirror-lakes give way to spongy tundra. Just below the surface are walls of ice that divide the tundra into polygons, each several yards across, so that from above it creates a pattern like lizard skin. This feels like a wildly dissonant analogy until you learn that Utqiagvik, Alaska, receives roughly the same precipitation as Tucson, Arizona. The difference is that the scant rain and snow here can't drain into the earth because of a barrier of ice, so hundreds of years of precipitation lingers on the surface of the land, collecting into ponds and creating a refuge for avian life. Birders from around the world come to look for migrants like the golden plover — a pebble-speckled bird that arrives after a 3,000-mile journey from the tropics — and the snowy owl, a true bird of the North. A bird at home in lonely, windswept places. A bird that scoffs at the tropics.

I am not a birder. I am a journalist here for other reasons, but I soon learn that it's impossible to come to the Arctic and ignore its birds. I thought I might see a polar bear, or a walrus, but big mammals are relatively scarce in the North and birds are plentiful. Before the arrival of guns, Iñupiat hunted with bolas — a set of ivory- or bone-carved balls attached to a cord of sinew. The hunter would whirl the bola, gathering momentum, then throw it skyward toward a flock of birds. With luck, the sinew would tangle around a bird's legs and pull it to the ground. Food.

After Alaska became a state, the federal government tried to regulate bird hunting with the same regulations it applied to the Lower 48. But such rules are incompatible with Arctic survival, and after several Iñupiat men were fined for hunting ducks out of season, the residents of Utqiagvik organized a duck-in: 138 residents turned themselves in, illegally harvested fowl in hand. The local game warden was overwhelmed with paperwork, and Utqiagvik was granted an exemption to the Migratory Bird Treaty Act.

Birds aren't just birds here. Birds are life.

My first night in Utqiagvik, under a sky so bright it requires sunglasses, I walk along the shore, following a small songbird that flits from one ice floe to the next. Back home the bird would be unremarkable, a sparrow-looking thing, but here on the ice it's otherworldly. It leads me to two Iñupiat women sitting in lawn chairs, smoking and drinking sodas, and they invite me to join them. Their kids are playing in the sand with plastic buckets and shovels, looking for all the world like they're enjoying a day at the beach — except that it's nearly midnight, and the ocean is encased in ice. I say something about this being the summer solstice, the longest day of the year, and the women look at me blankly. The longest day of the year means nothing where the sun never sets.

he second way I know to see a snowy owl I learn from Denver Holt, a biologist who's been studying them for 25 years. On my last day in Utqiagvik, Holt invites me to ride onto the tundra on the back of his fourwheeler. He drives me farther from town than I've yet been, revving the engine down a path bogged in mud, through swarms of mosquitos. At a seemingly random spot, he stops and hands me his binoculars. "Can you see it?" he asks.

I see nothing. Just endless mounds of moss and dwarf shrubs pocked with pools of swampy water. "Look," he urges. "Look for something white."



Finally, I spot it: a white blur, so pure it appears to be glowing. It's a male snowy owl, standing guard a few dozen yards from his mate's nest. The male is our marker, bright against the brown tundra. Once we spot him we scan left and right until we see the female. She's more mottled, nearly indistinguishable from the earth. We keep our eyes fixed and walk toward her, closer and closer until the four-wheeler is lost in the distance and we're two small specks in an enormous, monotonous land-scape.

Closer still, and the male grows concerned. He tries to distract us. He performs what Holt calls a "broken-wing dance," heartbreaking and beautiful. He dances to convince us that he's hurt, that he's more enticing than the clutch of eggs beneath his partner. When we ignore his efforts and continue toward the nest, he begins circling overhead, furious.

The female doesn't move until we're 20 feet away, then silently rises and flies to a nearby mound, watching suspiciously as we examine the bowl of downy feathers she's pressed into the tundra. Inside are five white eggs. Holt checks each to make sure it's intact, then begins cataloguing the array of bones scattered around the nest. There's a freshly killed lemming — the owls' main source of food — and Holt weighs it, writing the details in a yellow field notebook. He's studying the relationship between lemmings and owl populations, the latter of which are declining. The male continues to circle.

Suddenly Holt yells — "Duck!" — and I throw myself flat on the ground, my face buried in moss. Holt is next to me, having narrowly escaped an attack from the male, who swooped toward us, intent on implanting his talons in Holt's skull. he Iñupiat have a word, piqiut, that describes compassion for animals. One woman told me this extends to not harassing wild creatures or causing them undue stress, which made me question our intrusion on the owls' nests. Then the woman explained that there's one exception: Piqiut is permissible if it supports science that will be used to help wildlife populations survive, especially in a time when many are threatened from climate change and increased human activity.

The concept of *piqiut* isn't purely altruistic. Though Utqiagvik is a modern town with a pizzeria, sushi restaurant and grocery store, its infrastructure is largely maintained with oil money, and some residents consider the oil industry as fleeting and undependable as the whaling industry before it. Most Iñupiat still depend on whales, seals and wild birds for sustenance, and link their own physical and cultural survival to keeping those populations healthy.

In other parts of the world, owls are considered harbingers of death: silent wings in the night, deadly talons, the hushed passing from one world to the next. But in the Arctic, they're synonymous with life. Perhaps it's because snowy owls, alone in the owl family, hunt in the daylight. They show up to hatch their eggs around the time that the darkness of winter dissolves into the light of spring, and their round, bright faces resemble the sun. In Arctic myth, snowy owls guide weary hunters to safety, inhabit the bodies of shamans, and fly to the spirit world to negotiate on behalf of the living. They are protectors — and in turn, worthy of protection. \Box



A female snowy owl returns to her nest, where fuzzy owlets wait. PAUL BANNICK



HEARD AROUND THE WEST | BY BETSY MARSTON

COLORADO

Publicity has not been kind to Daniel Suelo, $\ensuremath{\mathrm{who}}$ was profiled by Mark Sundeen in his 2012 book, The Man Who Quit Money. Living on remote public land outside Moab, Utah, Suelo never spent a penny on food, clothes or gadgets, relying instead on our throwaway society and the occasional Dumpster-dive. But after the book came out, Suelo found himself sought after by 20-somethings and others who wanted to copy his "free and unfettered existence," says the Grand Junction Daily Sentinel. His outdoor life took on a "babysitting" quality until, he says sadly, "It was kind of like Moab spit me out." He lives now with his 89-year-old mother in Fruita, Colorado, balancing her bankbook, buying food and living indoors, where he has to hear "the white noise of the refrigerator humming." As for his own future, Suelo, 55, says he's realized that when the time comes, "I'd rather be in the wild and have natural selection knock me off."

"It was a bad day on the slopes for three snowboarders in Aspen's Maroon Bowl," reports the Aspen Times. On balance, you could say the day was wonderful, because everybody — somewhat surprisingly — lived to tell about it. First, the group "got lazy" and rode down a slope together — a dangerous thing to do if there's avalanche danger. As it happened, the trio triggered a snow slide that carried them several hundred feet down the hill. All three survived, but one of them was turning blue by the time his companions reached him. Pinned against a tree, he suffered a broken rib and a strained back. As if that weren't enough, after the three struggled out of the packed snow — and one boarder left to get help — the other two were spotted by a territorial and extremely grumpy moose, which charged them three times. Amazingly, "the duo managed to hold their ground," and eventually all three finally made their way to a hospital, minus the moose.

David A. Smart, 45, of Washington, D.C., really wanted to get photos of the 1,500 elk gathered



COLORADO Extreme territorial behavior among prairie dogs. RICHARD ENGELMANN

near the highway at Wyoming's National Elk Refuge in Jackson Hole. So he stopped his car at a pullout and launched a drone over the herd. This move, unfortunately, turned out to be less than wise: All 1,500 elk panicked, stampeding through three feet of snow and "burning up additional energy stores unnecessarily," said Doug Brimeyer, deputy wildlife division chief for the Wyoming Game and Fish Department. The federal crime of harassing wildlife is punishable by a fine as much as \$5,000, reports The Associated Press; an apologetic Smart was only ticketed \$280.

THE NATION

A tiny, newly discovered species of moth with a wingspan of less than one centimeter carries a big-league name — Neopalpa donaldtrumpi. Vazrick Nazari, an evolutionary biologist, told the journal ZooKeys that the "bright yellow scales" on the top of its head were what inspired him to name it after President Trump. Nazari didn't find the moth, which also sports orange-yellow and brown wings, out in the wild; he identified it after poring through material collected by the Bohart Museum of Entomology at the University of California, Davis. "I hope (Trump) takes it with the good spirit it is intended," he told the Washington Post. "We

need the administration to continue protecting vulnerable and fragile habitats across the United States."

WASHINGTON

After a propane tanker-truck crashed on I-5 near Seattle recently, thousands of morning commuters found themselves trapped. "Epic gridlock" reigned for hours and nothing moved, reported eater.com. Then, somebody noticed that a stranded taco truck had opened its big window, and drivers and riders were lining up to order lunch. The movable Tacos El Tajin business made a lot of new friends that day; as one worker explained, "You got to make the best of it, right?"

Happy birthday, Yellowstone National Park -145 years old on March 1 — and a big "thank you" to President Ulysses S. Grant, who had the foresight to create the nation's first national park in 1872. Kudos also to Wyoming Wildlife, the monthly magazine of the Wyoming Game and Fish Department. Its annual photo issue features gorgeous color pictures of everything from a striking prairie rattlesnake to a fox nuzzling the nose of what appears to be a smiling female fox, "before he curled up beside her" on

WASHINGTON

How hot is the real estate market in Seattle?

the snow, says photographer Dawn Y. Wilson.

Last year, a house so dilapidated and toxic that prospective buyers couldn't even peek inside attracted 41 offers and a buyer who paid \$427,000. The Seattle Times reports that the wipeaway, now completely rebuilt from the foundation up, just sold for "about \$1 million."

WEB EXTRA For more from Heard around the West, see hcn.org

Tips and photos of Western oddities are appreciated and often shared in this column. Write betsym@hcn.org or tag photos #heardaroundthewest on Instagram.



For people who care about the West.

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As we're called now to address planetary imbalances caused by our current lifestyles, perhaps we should focus more on Earth's **needs**, rather than what we perceive as ours.

> Laurie Lange, in her essay, "Don't squander your daylight savings," from Writers on the Range, hcn.org/wotr