

High Country News

For people who care about the West

March 5, 2018 | \$5 | Vol. 50 No. 4 | www.hcn.org

Drilling Chaco

In Navajo Country, efforts to slow oil and gas development face a formidable opponent: History

By Jonathan Thompson



A feral horse looks on as a truck passes a major hydraulic fracturing operation on oil wells about 15 miles outside of Chaco Culture National Historic Park. JONATHAN THOMPSON

On the cover

Kendra Pinto, a young Navajo activist, perches on a ledge high above the New Mexico landscape where she roamed freely as a child, near Twin Pines. In the distance, a well site emits a flare that can be seen and heard from miles away.

ROB ZEIGLER



Complete access to subscriber-only content

HCN's website
hcn.org

Digital edition
hcne.ws/digi-5004

Follow us



FEATURE

12 Drilling Chaco

In Navajo Country, efforts to slow oil and gas development face a formidable opponent: History By Jonathan Thompson

CURRENTS

5 Unexpected resilience

Western wildlife is surviving a run of bad luck

Open waters There's bipartisan displeasure with Interior's plan for offshore drilling

6 The fight over Washington's wells

Rural growth competes with fish, farmers and waterways

6 The Latest: The might of outdoor rec

7 The Nevada front

The Air Force wants control of 300,000 more desert acres

8 An abandoned tradition

Why an abalone fishing ban is a hardship for coastal tribes

9 The Beaver State's bedeviled mascot

A novel legal strategy seeks to protect beavers

9 The Latest: Invasive nutria are back

DEPARTMENTS

3 FROM OUR WEBSITE: HCN.ORG

4 LETTERS

10 THE HCN COMMUNITY

Research Fund, Dear Friends

20 MARKETPLACE

24 PERSPECTIVE

Disasters and their disparities By Ruxandra Guidi

25 BOOKS

Mozart's Starling by Lyanda Lynn Haupt. Reviewed by Melissa Hart

26 ESSAY

Stranger than Paradise By Hal Herring

28 HEARD AROUND THE WEST

By Betsy Marston

Editor's note

Movements slow and fast

Last weekend, I drove to the recreation center and found a "handicapped" parking spot. I hung my blue tag on the mirror, got out and walked a short distance over a smooth sidewalk to the front of the building. There, I pushed the big button at wheelchair height that automatically opens the doors and went in. No big deal, right?



Only it is a big deal, because access to public spaces and businesses for people like me — I've used crutches my whole life — was not a given until the passage of the 1990 Americans With Disabilities Act. And it took determined people decades to make that happen against the will of a business community that thought — and in pockets still thinks — the law too burdensome.

The ADA is part of our country's proud tradition of protest movements, which seems to be accelerating in the digital age — from #BlackLivesMatter to #MeToo to the nascent #NeverAgain movement sparked by high school students from Parkland, Florida, where a former student recently gunned down 17 people with a legally purchased AR-15.

As those students jump into the gun debate, they join legions of activists, past and present, who have notched victories and endured setbacks. They comfortably wield the tools of social media, which enables rapid organizing, but also encourages vicious counterattacks. They will need thick skin and stamina to keep their eyes on the prize, as the civil rights movement put it.

The West's own movements have been magnified by digital connectivity. Witness the anti-federal crowd that rallied around rancher Cliven Bundy and his sons, who outmaneuvered federal prosecutors over armed confrontations in Nevada and Oregon. Writer Hal Herring caught up with them in the tiny town of Paradise, Montana; his essay in this issue reveals a movement that remains small but potent in rural America.

And then there is the #NoDAPL movement that erupted on the North Dakota prairie two years ago, seeking to halt an oil pipeline near the Standing Rock Sioux reservation. Though it failed in that mission, the protest inspired a new generation of Native American activists, who have continued the fight on other battlefields. Contributing Editor Jonathan Thompson spent time with a few of them in the Four Corners region, where oil and gas development is closing in on Navajo communities and the culturally significant Chaco Culture National Historic Park.

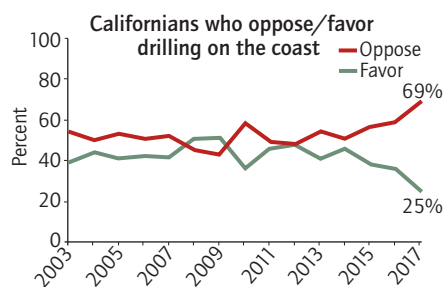
Thompson notes that the new activists, steeped in a long tradition of oppression and perseverance, already understand something that the students in Florida may just now be realizing — that their work will be neither easy nor quick. It will take years of on-the-ground organizing and determined negotiation with equally determined industries and politicians. But change is always possible. Those doors may look closed, but under strong enough pressure, they will one day open — like the automatic doors at my recreation center.

—Paul Larmer, executive director/publisher

California resists offshore drilling

The Trump administration is pushing to expand federal offshore oil production in the U.S., including off the California coast. Opposition to drilling stands at 69 percent in the state, due in part to the state's history of oil spills, with the last major one occurring in the 1960s.

Offshore oil drilling in California started in 1896 and ramped up by the 1950s — it's still the nation's third-highest oil producer — and by the 1960s, there were hundreds of exploratory wells



SOURCE: PPIC STATEWIDE SURVEYS, JULY 2003-JULY 2017, FROM PPIC BLOG, JANUARY 2018

and four oil production platforms off Carpinteria and Santa Barbara. On Jan. 28, 1969, a blowout from Union Oil's Platform A spilled more than 3.2 million gallons of oil into the Santa Barbara Channel, tarring 30 miles of beach and killing thousands of birds and marine mammals.

That spill changed the course of the state's offshore drilling; a moratorium was imposed, and 1970s-era environmental laws and lawsuits stymied federal attempts to increase drilling. Today, residents and politicians are promoting renewable energy and striving to lower greenhouse gases, goals that this administration has not prioritized.

CHARLES LESTER/THE CONVERSATION

Read more online: hcne.ws/resisting-oil

► An oil-covered surfer walks along the beach in Santa Barbara, California, after the 1969 blowout of the Union Oil Company well. It spilled 3.2 million gallons of oil into the Santa Barbara Channel, covering 800 square miles of ocean and shore.



VERNON MERRITT III/THE LIFE PICTURE COLLECTION/GETTY IMAGES

Trending

Protected lands generate big-time revenue

In this opinion piece, Tim Lydon reflects on his recent backpacking trip to Prince William Sound in Alaska, where "tendrils of commerce" could be seen on land and water. While some well-known recreation hubs like Moab and Jackson Hole are thriving, public lands also benefit more rural places, too. Under the Trump administration, Lydon concludes, proving public lands' profitability is one way to keep wilderness protected from more damaging industries like oil and gas. "For many people, protected areas provide an escape from commerce," Lydon writes. "But we should not ignore the dollar value of wilderness."

You say

MATTHEW MCGEE: "It's sad that we have to resort to its profitability, but at this point nothing else seems to work."

CHRIS RAMIAS: "I feel like talking about these lands in terms of their profitability, is getting sucked into the framing used by oil, gas and mining. Wild places have intrinsic value that is unrelated to the fact that you can recreate on them and profit from that recreation."

ANDY GROZ: "'Profitability.' The entire point of public lands is that they ARE NOT FOR PROFIT; if they were, we could just hand them over to private concerns."

Read more online: hcne.ws/profitable-wildness and [Facebook.com/highcountrynews](https://www.facebook.com/highcountrynews)

Audio

“When we think of Native people in the United States, we often think, unfortunately, of people in the 19th century in the past, hunting buffalo and fighting the Cavalry. Or maybe we think of the protesters at Standing Rock off on a far-off reservation, standing up to a pipeline, fighting for their land rights. But the demographic reality is that seven out of 10 Native Americans live in cities ... **3.7 million Native people live in cities.** So we are actually, surprisingly to many, a primarily urban demographic.”

— Julian Brave NoiseCat, speaking on the *West Obsessed* podcast about his story on the urban and rural housing crises faced by Native Americans. BRIAN CALVERT

Listen online at hcne.ws/urban-reality



Photos

A football team at the edge of the world

Barrow, Alaska, High School Whalers quarterback Anthony Fruean, a sophomore, cheers on his teammates at Cathy Parker Field, as they work toward their first state title in the team's 11-year history. Photographs by Ash Adams. See the photo story online: hcne.ws/whaler-victory

“I never meant to be one of those people who would trade redrock bones of desert and mountain crags and the velvet nakedness of tundra for the claustrophobic press of forest.”

—Sarah Gilman /The Last Word on Nothing, from her essay “How to learn to love a new landscape.” Read it online: hcne.ws/new-love

Debbie Baptiste holds up a picture of her son, Colten Boushie, as she leaves court during the trial of Gerald Stanley, the white farmer accused of killing Boushie, a member of the Cree Red Pheasant First Nation, in Battleford, Saskatchewan.

LIAM RICHARDS/THE CANADIAN PRESS VIA AP



The killing of Colten Boushie

In mid-February, Canadian farmer Gerald Stanley, who was charged with the murder of a 22-year-old First Nations man named Colten Boushie, was acquitted. The not-guilty decision from an all-white jury enflamed tensions between Indigenous people and the Canadian justice system; many First Nations people saw the trial as another example of institutionalized degradation and mistreatment of Indigenous people. Under Prime Minister Justin Trudeau, Canada has promised to take steps to mend the country's troubled relationship with First Nations people. But the Stanley trial, along with a perceived lack of action on cases concerning missing and murdered Indigenous women, as well as statistics that show Native people at a higher risk of death in police encounters, creates a persistent distrust in the criminal justice system.

GRAHAM LEE BREWER Read more online: hcne.ws/unjust-killing

High Country News

EXECUTIVE DIRECTOR/PUBLISHER
Paul LarmerEDITOR-IN-CHIEF
Brian CalvertSENIOR EDITOR
Jodi PetersonART DIRECTOR
Cindy WehlingDEPUTY EDITOR, DIGITAL
Kate SchimelASSOCIATE EDITORS
Tay Wiles

Maya L. Kapoor

ASSISTANT EDITORS
Paige Blankenbuehler

Anna V. Smith

WRITERS ON THE RANGE
EDITOR Betsy MarstonASSOCIATE PHOTO EDITOR
Brooke WarrenCOPY EDITOR
Diane SylvainCONTRIBUTING EDITORS
Tristan Ahtone, Graham
Brewer, Cally Carswell,
Sarah Gilman, Ruxandra
Guidi, Michelle Nijhuis,
Jonathan ThompsonCORRESPONDENTS
Krista Langlois, Sarah
Tory, Joshua ZaffosEDITORIAL FELLOW
Emily BensonEDITORIAL INTERNS
Carl Segerstrom
Jessica KutzDEVELOPMENT DIRECTOR
Laurie MilfordPHILANTHROPY ADVISOR
Alyssa PinkertonDEVELOPMENT ASSISTANT
Christine ListMARKETING & PROMOTIONS
MANAGER JoAnn KalenakEVENTS & BUSINESS PARTNER
COORDINATOR Laura Dixon

WEB DEVELOPER Eric Strebel

DATABASE/IT ADMINISTRATOR
Alan WellsDIRECTOR OF ENGAGEMENT
Gretchen KingACCOUNTANT
Erica HowardACCOUNTS ASSISTANT
Mary ZachmanCUSTOMER SERVICE MANAGER
Christie CantrellCUSTOMER SERVICE
Kathy Martinez (Circ.
Systems Administrator),
Lisa Delaney, Pam Peters,
Doris Teel, Tammy York
GRANTWRITER Janet Reasonereditor@hcn.org
circulation@hcn.org
development@hcn.org
advertising@hcn.org
syndication@hcn.org

FOUNDER Tom Bell

BOARD OF DIRECTORS
John Belkin, Colo.
Beth Conover, Colo.
Jay Dean, Calif.
Bob Fulkerson, Nev.
Anastasia Greene, Wash.
Wayne Hare, Colo.
Laura Helmuth, Md.
John Heyneman, Wyo.
Osvel Hinojosa, Mexico
Samaria Jaffe, Calif.
Nicole Lampe, Ore.
Marla Painter, N.M.
Bryan Pollard, Ark.
Raynelle Rino, Calif.
Estee Rivera Murdock, D.C.
Dan Stonington, Wash.
Rick Tallman, Colo.
Luis Torres, N.M.
Andy Wiessner, Colo.
Florence Williams, D.C.

MORE THAN ONE PUPFISH PER SMILE

Thanks to Laura Pritchett ("Laughter, America, Death Valley," *HCN*, 2/5/18) and her sweetheart, Kevin, for paying homage to laughter, sorrow and native desert fishes. Death Valley's pupfish species set an especially good example for us in these dark and heated times: They keep swimming even when the water in the tub is trickling down the drain and what's left behind is hot, salty, silty or predatory.

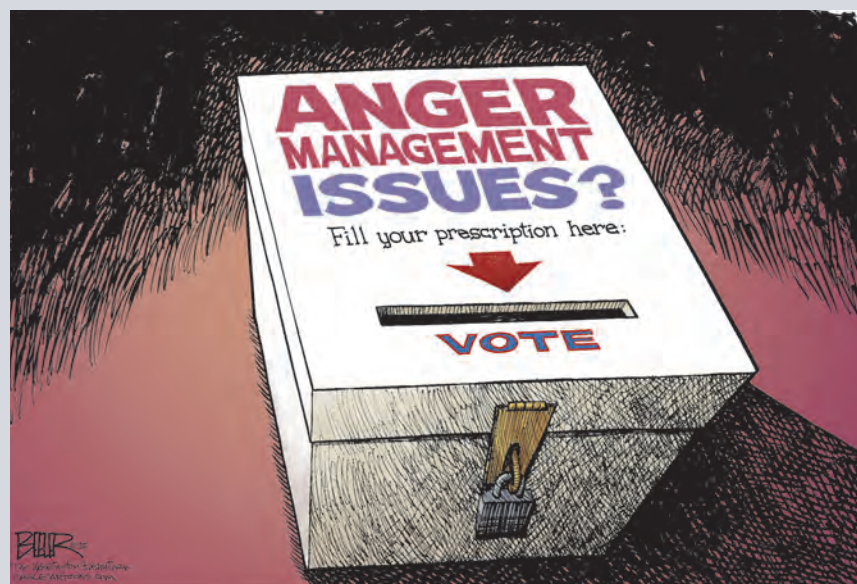
However, Death Valley National Park and nearby desert wetlands host more than one endangered species and subspecies of pupfish that exist "nowhere else on the planet." The national park alone provides intermittently drying shelter for at least two species and four subspecies of pupfishes. East of the park, a private landowner, state and federal biologists, and a small nonprofit have helped paddle the Shoshone pupfish back from the dry edge of disaster. Also east of the park, Ash Meadows National Wildlife Refuge (where Pritchett likely saw "little blue flashes in the deep pool") shelters two pupfish species and three subspecies, all endangered. Amargosa River pupfish still dart through the Amargosa River almost all the way to Badwater in Death Valley National Park. Tecopa pupfish, which also lived east of the park, are gone forever. They're the first animal to be removed from the endangered species list due to extinction.

The upshot, for Laura and Kevin, is an invitation to come back and admire more pupfish species — the West isn't lost, not yet, and not for pupfishes. It's just a bit broken. The upshot for all of us is that we're still surrounded by tiny, irreplaceable animals that perform astounding acts of survival every day. We owe it to them not only to laugh in the face of despair, but also to do our best to oppose bad jokes being fobbed off as government (e.g., suppression of climate change data, rollbacks of the collaborative Greater Sage Grouse Conservation Plan and Desert Renewable Energy Conservation Plan) so we can all continue to co-exist, even when we're up to our dorsal fins in hot water.

*Ceal Klingler
Bishop, California*

STATE OF DYSFUNCTION

The Mark Baird-led push for state of Jefferson endorsement in Plumas County, California, consisted of relentlessly pressuring the county board of



NATE BEELER/CAGLEARTOONS.COM

supervisors (who are sworn to uphold the California State Constitution) for a vote of support to leave California, and then walking away from any relationship with that body when that support was not forthcoming ("A Separatist State of Mind," *HCN*, 1/22/18). Once the supervisors declined to fund a county-wide vote, SOJers could have invested the time and effort necessary to gather enough certifiable signatures to still place the issue on a ballot, but instead they opted for a few hundred hastily gathered signatures that I understand may have included significant numbers of unregistered individuals.

"A Separatist State of Mind" quotes Mr. Baird claiming, "We got 51 percent of the population in Plumas County. We got 40,000 signatures. We didn't need their board." Unfortunately for Mr. Baird, Plumas County has fewer than 19,000 total residents, so he was either misquoted or dealing with "alternative facts." Without doubt, the sparsely populated northern counties of California are heavily subsidized by the rest of the state's taxpayers for a wide array of governmental services. So maybe it is actually a relief for the handful of Northern Californians who were duped into believing the state of Jefferson could be functional that on Feb. 1, the U.S. District Court for the Eastern District of California dismissed the suit filed by state of Jefferson supporters and others against California for better representation.

*Piers Straley
Quincy, California*

WATER CONNECTIONS

Thank you for investigating threats to the San Pedro River east of Tucson, Arizona ("Federal agency retracts opposition to Arizona project," *HCN*, 1/22/18). The river is unique in that it is one of the last free-flowing desert streams in the United States, supporting riparian habitats for aquatic and terrestrial species of conservation interest. In the San Pedro Valley, groundwater and surface water are connected. Thus, wells may pump groundwater that would otherwise flow to the river and also eventually pull water out of the river towards well fields, resulting in reduced streamflow or drying the river. How to manage groundwater and surface water as a linked resource remains an important policy question being played out across the Western U.S. today. For example, Sarah Tory's recent *hcn.org* article on the Texas-New Mexico Supreme Court case highlights the interstate dispute over how groundwater pumping may have reduced Rio Grande flows ("A Southwest water dispute reaches the Supreme Court," *hcn.ws/groundwater-fight*). In addition, California's 2014 Sustainable Groundwater Management Act includes a unique provision that groundwater be pumped at rates that avoid undesirable results, which include "depletions of interconnected surface water that have significant and unreasonable adverse impacts on beneficial uses of the surface water." It will be interesting to see how these legal and policy actions translate to practical water resource management strategies.

*Brad Wolaver
Austin, Texas*

High
Country
News

High Country News is a nonprofit 501(c)(3) independent media organization that covers the issues that define the American West. Its mission is to inform and inspire people to act on behalf of the region's diverse natural and human communities. (ISSN/0191/5657) is published bi-weekly, 22 times a year, by High Country News, 119 Grand Ave., Paonia, CO

81428. Periodicals, postage paid at Paonia, CO, and other post offices. POSTMASTER: Send address changes to High Country News, Box 1090, Paonia, CO 81428. All rights to publication of articles in this issue are reserved. See *hcn.org* for submission guidelines. Subscriptions to *HCN* are \$37 a year, \$47 for institutions. **800-905-1155 | hcn.org**

printreleaf
CERTIFIED
Printed on recycled paper.

Unexpected resilience

Western wildlife is surviving a run of bad luck

BY MAYA L. KAPOOR

The West is a challenging place to live these days, with fires and mudslides, droughts and heat waves — not to mention the political climate. But Westerners are nothing if not resilient, and that includes the nonhumans. *High Country News* rounded up a few inspiring examples of wildlife adapting in tumultuous times.

Sometimes, you just need to have a fire lit under you. Like the Thomas Fire, for one condor chick. According to Audubon, Condor 871 — as the U.S. Fish and Wildlife Service's Condor Recovery Program dubbed her — wouldn't fledge, staying in the nest long after most chicks leave home. The Thomas Fire burned through her canyon north of Los Angeles when she

was 7 months old, in mid-December, and her tag's radio signal vanished. On Jan. 2, Condor 871 reappeared, singed but soaring. Biologists theorize that the young bird, who had begun taking short practice flights just before the fire, finally fledged because her nest was about to ignite.

Crisis can bring a population together — to spawn, in the case of one rare fish species.

On Jan. 23, a magnitude 7.9 earthquake struck in the Gulf of Alaska. Minutes later, some 2,000 miles away, the quake triggered foot-high sloshing in Devils Hole, a water-filled cavern in Death Valley National Park that's home to the critically endangered Devils Hole pupfish. But park staffers were not worried about the earthquake's effects on the fish. According to Ambre Chaudoin, a biological technician at the park, the pupfish respond to disturbance by mating. The males turned a brilliant blue, their spawning color, even though spawning usually happens in spring and fall, not January.

Tiny acts of survival make an ocean of resilience. Pteropods, or sea butterflies, are no bigger than pinheads. Yet these tiny marine snails are important food sources for animals such as whales and salmon. Marine biologists have long known that human-caused carbon dioxide emissions



CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE

create ocean acidification, which kills sea butterflies by weakening their shells. Recently, though, sea butterflies near Greenland have been found repairing their shells from the inside with calcium carbonate patches. The shells' outsides have also proven more resistant to corrosion than expected. If the tiny creatures turn out to be more resilient to an acidifying ocean than anticipated, that could mean that marine food webs in places like the Pacific Northwest — where the ocean is naturally more acidic to begin with — may be better able to withstand climate change. □

In another example of resilience, two black bears were released back into the wild after their paws were badly burned in a wildfire. This bear rests after tilapia skin bandages were applied to hasten healing, the first time this method had been used in the U.S.

Read more online:
hcn.ws/resilient-wildlife

Maya L. Kapoor writes from Tucson, Arizona.

Twitter: @Kapoor_ML

Open waters

There's bipartisan displeasure with Interior's plan for offshore drilling

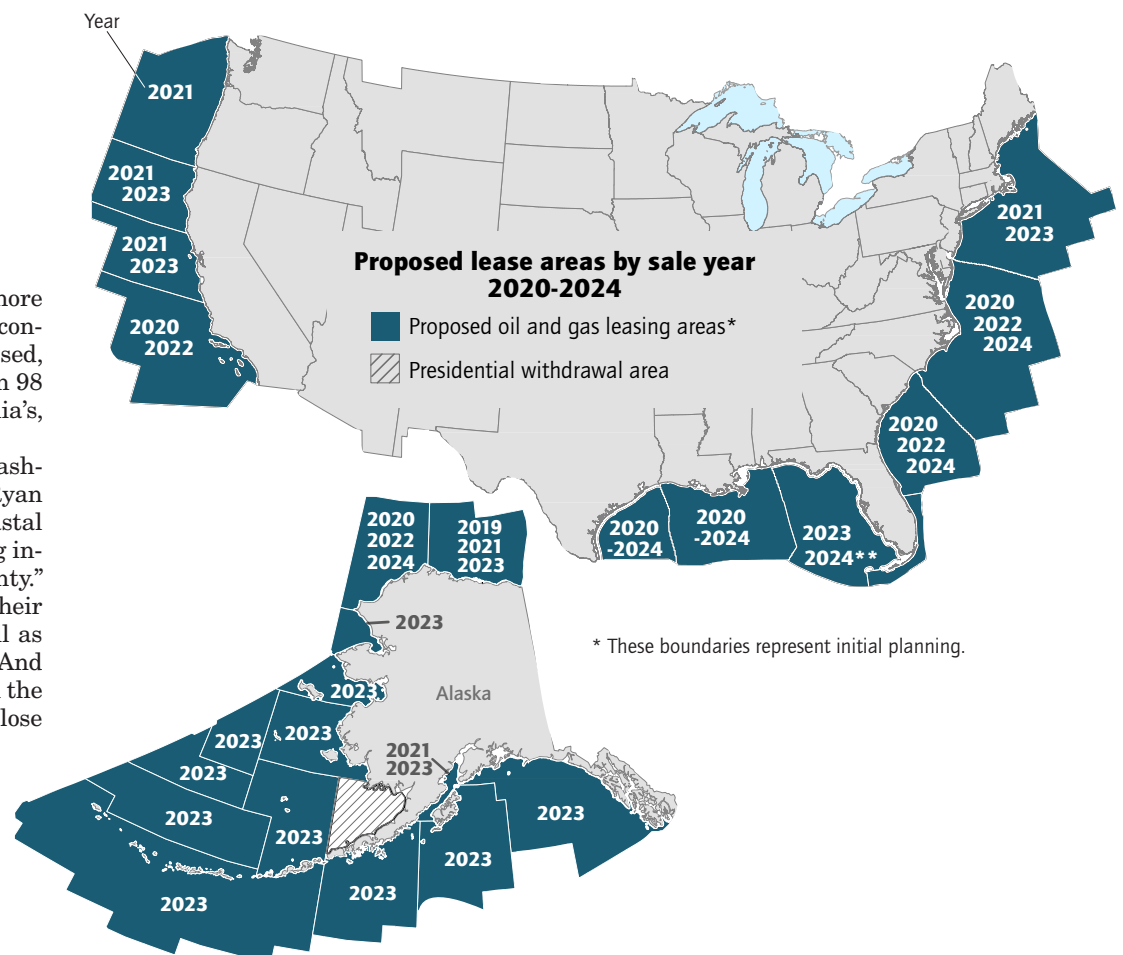
BY MAYA L. KAPOOR

Details of the Interior Department's draft five-year offshore drilling plan have lawmakers on both sides of the aisle concerned. Much of the nation's coastline previously had been closed, but this new draft plan, released in January, opens more than 98 percent of coastal waters to leasing, including all of California's, Oregon's and Washington's and most of Alaska's.

The Democratic governors of California, Oregon and Washington have written multiple letters to Interior Secretary Ryan Zinke, noting their states' economic dependence on clean coastal waters for everything from billion-dollar shellfish and fishing industries, to tourism, recreation and "scenic and spiritual bounty."

The states' attorneys general also wrote, expressing their concerns about potential impacts of offshore drilling, as well as the legality of the process used in developing the program. And though Alaska's Republican congressional delegation praised the new plan, they concluded by asking Zinke to reconsider and close almost all of the waters around Alaska.

The draft offshore leasing program is open for public comment through March 9. Several more steps remain before the plan is finalized, after which different regions will open for bidding according to the agency's calendar: Alaska's Beaufort Sea opens in 2019, while Southern California opens in 2020. □





New products and gear were on display at the Outdoor Retailer show in Denver. BROOKE WARREN

THE LATEST

Backstory

The Trump administration, led by Utah's congressional delegation, proposed unprecedented rollbacks to public-lands protections last winter. The outdoor recreation industry, which depends on public lands for survival, fought back. But it's unclear how much political and economic clout the industry has ("Outdoor rec industry defends public lands," *HCN*, 2/10/17). This winter, **gear companies carried out their threat to move the renowned Outdoor Retailer show out of Salt Lake City.** The multi-day event debuted in Denver in late January.

Followup

Now, the federal government has recognized outdoor recreation as an official industry. In early February, **the Commerce Department announced that outdoor recreation contributed more than \$373 billion toward the gross domestic product in 2016, about 2 percent of the total.** It's the first time that the GDP report included separate figures on the industry's value. "This further validates our broad and growing economic impact," said Amy Roberts, executive director of the Outdoor Industry Association.

JODI PETERSON

The fight over Washington's wells

Rural growth competes with fish, farmers and waterways

BY EMILY BENSON

In 2016, a Washington Supreme Court ruling put the brakes on rural home-building in several areas across the state. The so-called Hirst decision required counties to prove that new household wells wouldn't drain needed water from nearby streams before they issued building permits. But last month, state legislators, under pressure from landowners and building and realtors' associations, passed a bill that, with some caveats, allows new wells. The challenge of balancing rural growth with the needs of other water users and the environment extends far beyond Washington state. How it plays out here and across the region will determine how many more people can join the ranks of the millions of rural Westerners who rely on domestic water wells.

In Washington, such wells account for only about 1 percent of the water consumed statewide during the summer, but depending on their location, their impacts can loom much larger. In Spokane County, for example, the Washington Department of Ecology attributes more than 11 percent of summertime water use to domestic wells. But even though domestic wells are a major part of the state's water system — and, in some places, can draw down nearby creeks — they aren't regulated as strictly as they could be.

Though wells are subject to water law that says that, during shortages, newer uses should be cut back in favor of more senior ones, the Washington Department of Ecology has never shut down a household well for affecting an older water right. "I think they're really the last vestige of the Wild West as far as how water gets used," says Dan Von Seggern, the staff attorney for the Center for Environmental Law & Policy in Seattle.

The Hirst decision temporarily tamed that watery Wild West by requiring counties to show that water was legally available before new wells were drilled. But the ruling also triggered pockets of turmoil in several watersheds across the state, because it stopped people from building homes on land they'd already purchased.

"We just kind of had to go into a holding pattern," says Chris Basham, who, with his wife, Sara, wanted to build an energy-efficient home north of Spokane. Now, a year and a half after they had hoped to be living on 10 acres amid the pines, they have yet to begin building.

Thanks in part to stories like this, in 2017, some state legislators refused to pass a \$4 billion budget for projects like school and sewer repairs unless rural areas were reopened to well-drilling. The political mayhem dragged on through three special legislative sessions; the final one ended in July without a resolution.

This year, though, legislators acted quickly, passing a bill on Jan. 18 that requires local governments in several watersheds to develop plans to compensate for new wells. But the mitigation plans won't go into effect for another one to three years, and in the meantime, new wells can once again be drilled in basins where development had been halted. However, the legislation also includes a new \$500 well-drilling fee and a tighter cap on water use in some watersheds. Mary Verner, the manager of the Department of Ecology's water resources program, says those provisions appear to be designed to "ensure that it's not just a free-for-all until these watershed plans are adopted."

But the new legislation may perpetuate an old West Coast conundrum: Where environmental needs and development collide, salmon can easily become collateral damage. Jeff Dickison, a policy analyst and the assistant natural resources director for the Squaxin Island Tribe in

south Puget Sound, argues that the bill threatens streams — and the fish that live there — by unraveling the Hirst ruling's environmental safeguards. "Well, the new bill screws it up royally," Dickison says, because well drilling near already dwindling steelhead and salmon streams can now resume.

In one watershed, the legal battle has also discouraged many rural residents from taking advantage of a program that could help address the underlying conflict over limited water. Thousands of household wells dot the landscape around the Little Spokane River, nestled between the Huckleberry Range and the Selkirk Mountains in the northeastern corner of Washington. Many of those wells siphon off the river, which is connected to shallow groundwater beneath its streambed. So two out of every three years or so, the Little Spokane's flows fall below the state-mandated minimums for protecting fish and the environment, creating a clash between nature and further development.

In response, Spokane County, where most of the wells in the Little Spokane Basin are located, organized a water bank. By buying large water rights, then splitting them into smaller chunks to be sold to people building homes, the bank could allow for new wells while protecting the river from being drained. But in mid-January, the new bill made joining the water bank an unnecessary expense. Out of 34 people who had signed up for the program, only 10 bought into it. Furthermore, says Mike Hermanson, the water resources manager for the county, the county is offering those purchasers refunds. "I imagine many will take them," he says. □



Household wells in the Little Spokane River Basin, in northeast Washington, are contributing to low flows in the river. COURTESY OF BEACON HILL SPOKANE

Emily Benson is an editorial fellow at *High Country News*. [@erbenson1](#)



The Nevada front

The Air Force wants control of 300,000 more desert acres

BY TAY WILES

One morning this January, I accompanied a group of environmental advocates to the northern tip of the Desert National Wildlife Refuge, 100 miles north of Las Vegas. A short hike brought us to a boulder with a petroglyph of bighorn sheep, eroded after thousands of years of exposure. A more recent traveler left a mark nearby as well, etching the letters “U” and “S.” “I wonder who did the ‘US,’” said Christian Gerlach, the Sierra Club’s Nevada organizer. “Was it the Air Force or one of the cavalymen?” By cavalymen, he meant federal troops encountering bands of Paiute in this region in the 19th century. By Air Force, he meant the entity trying to gain control of this land today.

President Franklin D. Roosevelt first protected the area in 1936, as a game range for bighorn sheep. But just four years later, the U.S. War Department began using part of it as a bombing and gunnery range. Since then, the Air Force has gained a total of 2.9 million acres for its Nevada Test and Training Range. The U.S. Fish and Wildlife Service co-manages 846,000 of those acres as part of the Desert National Wildlife Refuge — the largest federal wildlife refuge in the Lower 48. Now, the Air Force hopes to gain sole jurisdiction and expand its range to include another 300,000 federal acres, most of it refuge land, leaving the refuge with less than 500,000 acres.

Opponents fear the expansion could threaten a uniquely intact habitat for desert bighorn sheep, the threatened desert tortoise and hundreds of other plants and animals. A dry lakebed, a relic of the landscape’s prehistoric past, could become a landing strip, kicking up dust and disrupting wildlife corridors. The Air Force has also proposed building 30 “emitters,” to simulate threats in training exercises, which would require a network of

roads that could disturb wildlife habitat.

In its 1,000-page draft environmental impact statement, the Air Force explains that modern aircraft, which fly higher and faster than ever, require more space to train safely. The Nevada range is the nation’s pre-eminent Air Force training ground and hosts dozens of allied forces from around the world. Every other air space in the country is saturated with commercial flights, making southern Nevada the only option for expansion.

The Department of Defense has a mixed record when it comes to land stewardship in the West. Ecosystems sometimes thrive under military jurisdiction, because they are protected from the kind of development that eats up open space elsewhere. A program at the Barry M. Goldwater Range in Arizona, for example, helped rescue the endangered Sonoran pronghorn from the brink of extinction after debilitating drought in the early 2000s. A buffer zone outside Washington’s Hanford Site, where plutonium was once produced for nuclear weapons, became an accidental wilderness where biodiversity thrives. The military has its own experts to ensure training activity adheres to environmental and archaeological protection laws.

“If we see a sheep, we are not allowed to bomb it,” James Sample, an employee at Colorado State University on detail at the Pentagon to help facilitate the Air Force expansion, told me at a public hearing last month in Beatty, Nevada.

Refuge manager Amy Sprunger said the land under co-management with the Air Force is in “pretty good shape.” Many places are even pristine, she said, “because of national wildlife refuge system regulations.” The Air Force “is regulated more or less by us.” Sprunger considers the current 750 bighorn sheep a healthy herd. She gets annual reports from the Air Force, but her own staffers are allowed onto the testing range only three weeks of

the year. When I asked her how the Air Force is ultimately held accountable for land stewardship, she said, “It’s an excellent question. You don’t know what you don’t know.” She’s most worried about what will happen if the Air Force kicks her agency off that part of the refuge, as it has proposed. Sprunger supports allowing the Air Force to continue using its range, but opposes expansion or allowing the military to take sole jurisdiction.

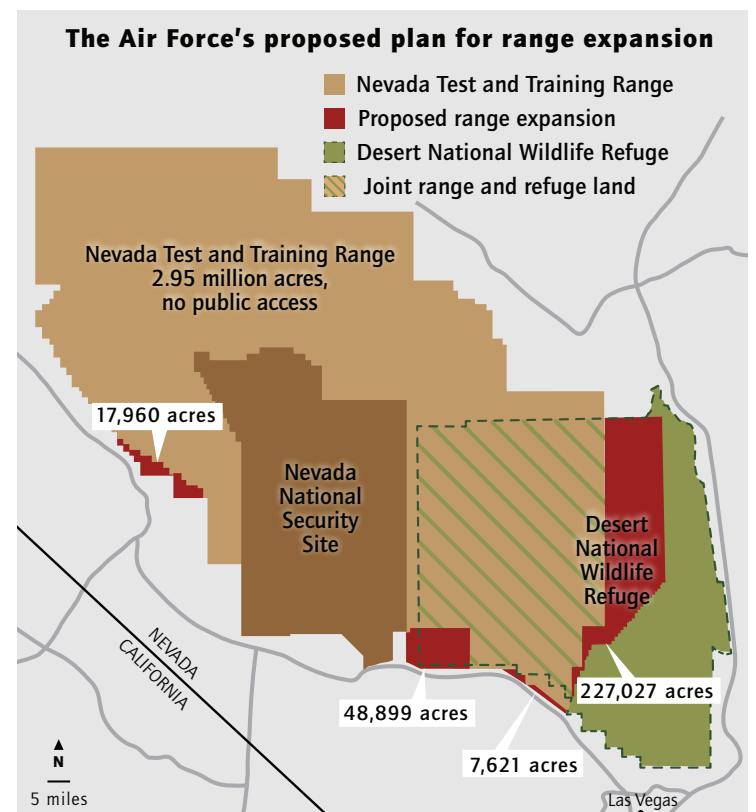
Aside from environmental concerns, expansion worries Southern Paiute tribal members, as well as hunters and recreationists. Sprunger estimates about 40,000 people each year visit the refuge’s rugged mountains and Joshua tree forests, mostly entering through the southern tip near Las Vegas. That entrance would remain accessible, but much of the western slope of the iconic Sheep Range would be off-limits.

Loss of access is a major concern for many in the 350-member Moapa Band of Paiutes, whose reservation lies just to the east, and whose broader ancestral lands span much of southern Nevada. On the refuge, harvesting medicinal herbs and big game often requires permits. But on Air Force land, the Moapa have to make a special appointment to access traditional resources. “People say, ‘It’s just desert,’ but it means a lot to us,” Tribal Council Chairman Greg Anderson said.

The Air Force will incorporate public comments into a final environmental impact statement by the end of this year. It hopes to pass a withdrawal and expansion plan through Congress by 2020. □

◀ A desert bighorn sheep in the Desert National Wildlife Refuge, where the species has a uniquely intact habitat.

COURTESY OF FRIENDS OF NEVADA WILDERNESS



SOURCE: NEVADA TEST AND TRAINING RANGE IMPACT ANALYSIS REPORT
BROOKE WARREN/HIGH COUNTRY NEWS

Associate Editor Tay Wiles writes from Oakland, California. 🐦 @taywiles

An abandoned tradition

Why an abalone fishing ban is a hardship for coastal tribes

BY DEBRA UTACIA KROL

The earrings are only a couple of inches long, but the masterfully carved salmon look like they've leaped from the water to whisper in the wearer's ear. Their glowing red hues and iridescent opalescence caress the eye. These colors occur naturally in the medium in which Leah Mata, a Northern Chumash artist, works: the shells of the red abalone, or *Haliotis rufescens*.

Abalone shells and the rich meat inside have sustained Mata's people throughout their existence. And the Chumash are just one of the coastal Native communities for whom abalone holds a central place in culture and cuisine, and in jewelry, regalia and ceremonies.

Now, however, a "perfect storm" of overfishing and climate change is driving the abalone perilously close to extinction, pushing the California Department of Fish and Wildlife to cancel the 2018 abalone fishing season.

The ban poses potential economic harm to the estimated \$24 to \$44 million sport-fishing industry, but it could spell subsistence and cultural disaster for the tribes. Since California tribes lack treaty rights or other federal or state laws allowing them to pursue their traditional lifestyle, they have little leverage to seek cultural or subsistence exemptions from the ban.

"I'm absolutely heartbroken," said

Debra Utacia Krol is an enrolled member of the Xolon Salinan Tribe from Central California.

🐦 @debkrol

Clint McKay, a cultural consultant with the Dry Creek Rancheria Band of Pomo Indians in Sonoma County. "We need to maintain the relationship we have with the ocean and the plants and animals within it, or we'll lose that connection."

For millennia, the 20 or so coastal California tribes have relied on abalone as an important source of protein, harvesting the shellfish at sustainable levels. Commercial fishing began in the late 1800s and gained intensity over the years. By the 1990s, several species had nearly been wiped out, prompting wildlife officials to halt the practice. Recreational fishing was permitted, but the harvest was strictly limited to allow the invertebrate to recover.

In other states, tribal members typically can engage in subsistence activities outside recreational fishing and hunting regulations, thanks to sovereign territory rights, as with Alaskan Natives who hunt seals, whales and other animals. However, since Congress refused to ratify the treaties negotiated with California tribes in 1851-'52, they lack subsistence rights and are subject to California wildlife and coastal management laws.

A toxic algae bloom in 2011 and an unusual mass of warm water the following year caused a massive depletion of kelp forests, the principal food source for several coastal species, including abalone. And the kelp that survived faced a greater threat: purple urchins. After their primary predator fell victim to a viral disease, the



urchins ate everything in sight, including about 90 percent of the kelp, resulting in today's "urchin barrens." McKay said that, when he dives, it's like walking across purple carpets of urchins.

"A big barren used to stretch a mile," said Cynthia Catton, a marine biologist with the department, who studies kelp and abalone populations. This barren stretches for 100 miles, and the ecosystem may take decades to regain equilibrium.

Poachers also exact a heavy toll. McKay says that state officials say poachers take as much, if not more, abalone than legal fishing each year. State authorities are trying to crack down, but when a single abalone can fetch \$100 or more on the black market, stopping poachers is nearly impossible.

Mata says she may have to quit selling her award-winning abalone shell jewelry, which helps support her family. And given the reduced fishing seasons and takes, many tribal members fear that this tie to their heritage is in danger of being broken.

Sonke Mastrup, an environmental program manager with the state wildlife department, says California can help Native artists find a reliable source of shells, using dead abalone on the ocean floor and shorelines. The agency may also be able to supply some tribal communities with small amounts of abalone meat from research labs.

But that's not enough for Mata and McKay, who worry they could soon lose a vital part of their culture, spiritual beliefs and history. Abalone shells adorn their regalia, and its meat has long filled the bellies of their ancestors as well as those of their people today.

And even though tribes are represented on both the California Coastal Commission and California Department of Fish and Wildlife, many Natives feel their concerns are drowned in the noise of a state with 33 million people. "Western culture has taken our cultural resources for themselves," Mata says.

All this adds up to a heavy cultural price.

"I look around at our elders, at my dad," McKay said. "This has been part of his life, his culture, his Native tradition for 82 years. But somebody is going to look at him and say, 'You can't have this anymore.'"

"If this continues for several years, they're telling our elders, 'You won't eat this food again in your lifetime,'" he said. "That's really scary to think that that may happen." □

▲ A pair of abalone earrings made by Northern Chumash artist Leah Mata.

COURTESY OF LEAH MATA

► A diver measures a red abalone on the California coast. Abalone must be seven inches or longer to be legally harvested.

PATRICK FOY/CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE





Beavers are a common rodent, but they're a keystone species important to the survival of endangered salmon.

SARAH KOENIGSBERG,
COURTESY OF THE BEAVER
BELIEVERS

The Beaver State's bedeviled mascot

A novel legal strategy seeks to protect beavers from the feds

BY BEN GOLDFARB

For three decades, Susan Sherosick has lived on 32 acres deep in the southwest Oregon woods, in a peaceful hollow bracketed by streams that flow into the Umpqua River. Out here, raccoons and black bears weave through the willows, and a resident cougar deposits twisted scat behind her house. Every Thanksgiving, salmon swim into her front yard to spawn.

Sherosick, like many Westerners, also lives in uneasy detente with another, more challenging species. Beavers routinely fell her cottonwoods and convert her creeks to wetlands. Twice, she has asked the county to send a trapper, though she tries to leave the animals alone. But when new dams flooded her house this winter, she drew the line. "Pretty soon I couldn't flush the toilet," she recalls. "It was like living in a marsh."

When Sherosick called for a trapper this time, though, she never heard back. She isn't sure why her pleas went unanswered, but it's likely she'd become caught in the middle of an unusual legal battle, one that could upend how the West's wildlife agencies manage the region's most influential rodent.

The case revolves around Wildlife Services, the branch of the U.S. Department of Agriculture tasked with managing problematic animals. Although the agency per-

forms many uncontroversial functions, like vaccinating raccoons against rabies and controlling feral pigs, it's notorious among conservationists for killing native predators, eliminating 332 cougars, 415 wolves, and over 76,000 coyotes in 2016 alone. It also killed more than 21,000 beavers nationwide last year, including 319 in Oregon.

Among Wildlife Services' fiercest antagonists is the nonprofit Center for Biological Diversity. The center has sued the agency in Idaho, California, Colorado and other states, accusing it of failure to comply with the National Environmental Policy Act, the law that requires federal agencies to assess the environmental impacts of their actions. So it shouldn't have been surprising when the center, along with the Western Environmental Law Center and Northwest Environmental Advocates, notified Wildlife Services this November that it planned to take the agency to court over its Oregon beaver-killing. But this time, rather than citing NEPA, the center was wielding a much tougher law — the Endangered Species Act.

At first blush, this seemed perplexing. The Endangered Species Act is designed to conserve rare flora and fauna; meanwhile, beavers are ubiquitous, found from Alaska's tundra line to northern Mexico. This case, however, hinges on *Castor canadensis*'s unique environmental influence. Beavers are a "keystone species," an organism whose pond-creating powers support entire

biological communities. In Oregon, a host of threatened and endangered salmon and steelhead runs depend on them. By killing beavers without accounting for the destruction of rodent-built critical habitat, the environmental groups argue, Wildlife Services risks jeopardizing federally protected fish.

It's a curious strategy with little precedent. "There's a nice legal point here, but I'm not sure what the practical implications will be," says Pat Parenteau, an endangered species expert at the Vermont Law School. But it's also a sign that society's relationship to beavers is changing, and, if it succeeds, it could spur agencies and landowners to seek new approaches to living alongside meddlesome rodents. "This," says Jakob Shockey, a wildlife biologist who specializes in beaver management, "is the legal argument we've all been waiting for."

Perhaps no state is as closely linked to a wild animal as Oregon is to beavers. They are Oregon's official animal, the mascot of its largest university, the source of its nickname. When, in 1849, the Oregon Territory defied the federal government by forming its own mint, beavers featured on the coins. To this day, a golden beaver, waddling across a navy field, adorns the state's flag.

The Beaver State's fixation reflects an intimate historical connection. Fur trappers, lured Northwest by the promise of "hairy banknotes," explored the Columbia River's tributaries, established the region's first non-Native settlements, and pioneered the Oregon Trail. The trade pillaged streams so thoroughly that the state banned beaver trapping from 1899 to 1918. The animal's population soon began to recover — just as Oregon's human

Please see **Beavers**, page 23

THE LATEST

Backstory

Nutria, 20-pound rodents native to South America, destroy wetlands, degrade water quality and damage flood-control levees. Imported to the U.S. by fur entrepreneurs in the late 19th century, they quickly colonized 15 states, mostly in the Southeast. California eradicated them in the mid-1960s, but they multiplied in Washington and Oregon ("Toothy nuisance moves north," *HCN*, 10/31/05). Today, they're found throughout western Washington and Oregon's central coastal region.

Followup

Over the past year, nutria have reappeared in three California counties, and the state's Department of Fish and Wildlife is asking residents to report sightings so officials can estimate how many giant rodents are out there. Nutria are classified as invasive, so it's illegal to possess or transport them. "We don't know if someone set one loose or if there was an isolated population out there that we didn't know about," department spokesman Peter Tira told NPR. "But we do know we have to get rid of them."

JODI PETERSON



EMMANUEL KELLER/CC FLICKR

Ben Goldfarb is the author of the forthcoming book *Eager: The Surprising, Secret Life of Beavers and Why They Matter*. [@ben_a_goldfarb](#)

RESEARCH FUND

Thank you, Research Fund donors, for loving the West’s wonders

Since 1971, reader contributions have made it possible for *HCN* to report on the American West. Your tax-deductible gift directly funds nonprofit, independent journalism.

Thank you for supporting our hardworking journalists.

PUBLISHER’S CIRCLE

Susan Heyneman, Bench Ranch | Fishtail, MT
Ann R. McAlpin, Wild Waters Foundation | Carbondale, CO
JoAnn Moon | Prescott, AZ
Jeffrey & Lisa Portman Sr. | Atlanta, GA

PHILANTHROPIST

Judd & Mary Anne Brown | La Jolla, CA
Caprock Fund of Tides Foundation on the recommendation of Ms. Kappy Wells | San Francisco, CA

STEWARD

Paulette Bierzychudek | Portland, OR
John Buckley | Washington, DC
Dan & Robin Catlin | Boulder, CO
Annie Douden & Richard Messer | Fraser, CO
Leo O. Harris & Ann Simms | Albuquerque, NM
Bill Johnson & Cheri Ferbrache Fund | Denver, CO
Leon L. & Judith Jones | Ogden, UT
Wayne & Jane Larsen | Loveland, CO
Jake Sigg | San Francisco, CA
Thomas Sisk, The Cliffrose Fund | Vancouver, BC, Canada
Stephanie & Ken Wallace | Helena, MT
Larry & Jennifer Wolfe | Cheyenne, WY

GUARANTOR

Anonymous
Ann Harvey & Mike Campbell | Wilson, WY
Dan & Katherine Huntington | Washougal, WA
Kathy & Ken Lichtendahl | Powell, WY

Michael McCally & Christine Cassel | Santa Fe, NM
Ann Mullins, The Margaret A. Frank Fund | Aspen, CO
Rachel Myron | Tenakee Springs, AK
Margaret Piety | Indianapolis, IN
Rick Strachan | Lopez Island, WA
Fred & Helen Unterleitner | Placerville, CA

BENEFACTOR

Anonymous (2)
In honor of Donald Trump | Washington, DC
Don Bachman & Cathy Cripps | Bozeman, MT
Kathleen Brennan | Denver, CO
Bill & Karen Brinckerhoff | Littleton, CO
Richard F. Buscher | Tigard, OR
Alan Cass | Longmont, CO
Kitty Collins | Tempe, AZ
Joe & Sandra Hendrickson | Fort Collins, CO
Richard & Kaye Hoffmaster | Somers, MT
Stephen Hoover | Woodland, WA
Jack E. Jackson | Boulder, CO
Gayle & Fritz Jandrey | Tucson, AZ
Todd Kalstrom | Denver, CO
Harvey Kelsey & Susan Cashman | Bayside, CA
Scott & Becky Lehmann | Storrs Mansfield, CT
Bob Maddox & Katie Hirschboeck | Tucson, AZ
Scott Goodman & Barbara Masoner | Denver, CO
James & Diana McWilliams | Los Angeles, CA
Carolyn Moller & David Smith | Durango, CO
Rick & Susan Neff | Missoula, MT
Tricia Powell | Grand Junction, CO
Bettina Proctor | Denver, CO
Sara Ransford, The Arches Foundation | Aspen, CO
Thomas & Lucy Shipp | Durango, CO
Richard L. Stolz | Mercer Island, WA
Roger & Pam Van Andel | Salt Lake City, UT
David Vanicek | Paradise, CA
Nancy Wick & Maurice Warner | Seattle, WA
Robert Westfall | Davis, CA



SPONSOR

Anonymous (2)
In honor of Cathy Connolly | Laramie, WY
In memory of Margaret V. Bowers
In memory of Carrie Ludden
Jeff Beauchamp | Bar Harbor, ME
Warren & Karen Bird | Berkeley, CA
Rhonda & Kevin Clyde | Moab, UT
Scott & Hara Davis | Cliff, NM
Rae Ann Engdahl | Mercer Island, WA
Cheryll Faust | Salida, CO
Randall Jahren & Valerie Loebs | Bainbridge Island, WA
Rob Kirkwood | Olympia, WA
Eric & Elizabeth Lennert | Lyons, CO
Peter & Jenna Merlin | Boulder, CO
Nancy Moran & Howard Ochman | Austin, TX
David & Ann Phillips | Boulder, CO
Dan Schroeder | Ogden, UT
Stephen Seiffert | Albuquerque, NM
Leon Shaul & Kathleen Jensen | Douglas, AK
Charles Simenstad & Stephanie Martin | Seattle, WA
Keith L. Stickford & Elena Snyder | La Jara, NM
Glenn Yocum & Emelie Olson | Taos, NM
Heidi B. Youmans | Helena, MT
Tom & Kim Zeiner | Lakewood, CO

PATRON

Anonymous (4)
In honor of Genevieve Bennett | Whitefish, MT
In honor of Beth Workman
In memory of Samuel P. Hayes | Boulder, CO
In memory of Charlotte Hope & Raymond F. Antiel
In memory of Susan Kinney Martin
In memory of James Adland Mason
In memory of Kay Nollenberger | Ashland, OR
In memory of Henry Spangler | Corte Madera, CA
Olan Adams | La Veta, CO
Brandon Alleman | Portland, OR

Linda Andes-Georges & Jean Pierre Georges | Longmont, CO
Roger Athey & Susan Butler | Scottsdale, AZ
Linda Baran | Grass Valley, CA
Carey M. Bare | Chromo, CO
Rick Beauheim | Grand Junction, CO
Fred Berkelhammer | Louisville, CO
Scott Bertschy | Bloomfield Hills, MI
Elizabeth A. Biesiot | Denver, CO
Bob & Randee Blackstone | Vashon, WA
Carl & Lori Bowman | Grand Canyon, AZ
Janis Burger | Port Angeles, WA
Diane Carson | Denver, CO
Prudence Carter & Marianne Balin | Longmont, CO
John Cederholm | Marion, MA
Ronald & Frances Chilcote | Laguna Beach, CA
Daniel & Sandra Ciske | Seattle, WA
Pamela L. Clark | Porterville, CA
John H. Conley | Port Townsend, WA
Charles & Louise Conrad | Tucson, AZ
Steven Corbato | Portland, OR
Laura A. Cotts | Cedar City, UT
Marco D. Davis | Orem, UT
Lorinda Dengler | McKinleyville, CA
Patrick Desmond | Tucson, AZ
Kat Duff | Ranchos de Taos, NM
Douglas Dunn | Bisbee, AZ
Jim Durr | Eckert, CO
Rod Dykehouse | Victor, ID
Hal H. Eby | Reno, NV
Robert Eccli | Price, UT
Joanna Endter-Wada | Logan, UT
Stuart Feen & Carol Sonnenschein, Prairie Crossing | Grayslake, IL
Peg Ferm | Monroe, WA
Gerald Folland | Seattle, WA
Charles E. Fothergill | Louisville, KY
Frederick J. Frahm | Boise, ID
Richard & Sally Fredericks | Moscow, ID
Nick & Marci Gerhardt | Kooskia, ID

☒ YES! I care about the West!

☐ \$35 Friend	Amount of gift \$ _____	☐ Make this amount recurring
☐ \$75 Patron	☐ Here's my check (or voided check/1st month's gift for recurring gifts)	
☐ \$150 Sponsor	☐ Charge my credit card	\$15/month minimum
☐ \$250 Benefactor	Card # _____ Exp. date _____	
☐ \$500 Guarantor	Name on card _____	
☐ \$1,000 Steward	Billing Address _____	
☐ \$2,500 Philanthropist	City/State/ZIP _____	
☐ \$5,000 Publisher's Circle		
☐ \$10,000 & up Independent Media Guardian		

High Country News | P.O. Box 1090 | Paonia, CO 81428 | 800-905-1155 | hcn.org D016A010

UTAH'S GREATEST WONDERS

By Christopher Cogley and Rich Briggs.
138 pages, hardcover: \$29.99.
Plain Sight Publishing, an imprint of Cedar Fort Inc., 2017.

Home to stunning rock formations and majestic stone arches, Utah's national parks evoke a sense of awe from millions of visitors every year. With their prose and photographs, writer Christopher Cogley and photographer Rich Briggs capture that beauty in their book, *Utah's Greatest Wonders, A Photographic Journey of the Five National Parks*.

Each chapter is dedicated to one of the state's national parks, with Cogley providing insight into the geology that shaped these extraordinary landscapes, while educating readers about the area's history and early inhabitants. Briggs' images provide breathtaking looks at iconic formations like Delicate Arch and Cathedral Valley, photographed in every season of the year, at every time of day. If you're itching for a quick armchair journey to the desert, this book is well worth your time. **JESSICA KUTZ**

Delicate Arch in Arches National Park.

© RICH BRIGGS AND CEDAR FORT INC.
USED BY PERMISSION.

David R. Gillette | Golden, CO
Gary & Joanne Goble | Denver, CO
Gary Grief & Dorothy Wells | Taos, NM
Nathan Grothe | Seattle, WA
Maureen & Bob Hall | Crested Butte, CO
Keith Hauer-Lowe | Roseville, MN
Moss Henry | Santa Rosa, CA
Charles Hogan | Lafayette, CO
Eric & Betty Janes | Mancos, CO
Bill Jenkins | Leavenworth, WA
Rudolph L. Johnson | Las Vegas, NV
Mark Kastler | Centennial, CO
Ogden Kellogg | Gold Hill, OR
John & Marilyn Keyser | Terrebonne, OR
Stephen Knapp | Louisville, CO
Sharon Kolber & Gerry Burkard | Heber City, UT
Brian Larsen & Renae Kofford | Boulder, CO
Jamie Longe & Wendy Zeigler | Salt Lake City, UT
David & Kathleen Longton | Volcano, CA
Scott Lucas | Evanston, WY
David A. Lucia | Denver, CO
Suzanne Marshall | Coeur d'Alene, ID
Paul A. Mason | Oakland, CA
William J. Matousek | Winner, SD
John & Lynn Matte | Albuquerque, NM
W.T. McCarvill | Salt Lake City, UT
Margaret McMillan | Little Rock, AR
Allen McNeal | Townsend, MT
Sarah Michael | Sun Valley, ID
Frank Miles Jr. | Cape Elizabeth, ME
Harry Mitchell | Great Falls, MT
Eldridge & Judi Moores | Davis, CA
Bob Nordstrum | Albuquerque, NM
Karen M. Ortiz | Hotchkiss, CO
Clayton Parr | Draper, UT
Gary Pelzner | San Anselmo, CA
Keith Peters | Portland, OR
Julie Phillips | Boulder, CO
Marcia K. Politovich | Lafayette, CO
Lisa Poppleton | Salt Lake City, UT

Sarah Powley | West Lafayette, IN
Ericka Prechtel | Salt Lake City, UT
Kenneth E. Ragland | San Pedro, CA
Kim Ragotzkie | Ashton, ID
Ken Ransford | Basalt, CO
Bill Rau & Susan Roche | Castle Valley, UT
Patricia Rauscher | Cortez, CO
Mr. & Mrs. Robert S. Ridgely | North Sandwich, NH
Peter E. Sartucci | Lafayette, CO
Mike Schneegas & Nancy Skinner | Bend, OR
Gil Sharp & Anne Saxby | Hood River, OR
Steve Shipe & Marta Pasztor | Seattle, WA
Ann Sjoberg | Fort Collins, CO
Morgan Smith | Santa Fe, NM
Richard Smythe | Sister Bay, WI
Stephen J. Spaulding | Cascade, CO
Page Spencer | Anchorage, AK
Judee & Chuck Stanley | Idaho Falls, ID
Tyrone & Deidra Steen | Colorado Springs, CO
Nancy Stephanz | Port Angeles, WA
Paul Stettner | Steamboat Springs, CO
Philip & Eileen Taulbee | Las Cruces, NM
Cynthia F. Taylor | Erie, CO
Byron Thomas | Scotts Valley, CA
Dana & Lindsey Thomas | Redlands, CA
Robert Utter | Santa Rosa, CA
Carol Van Dorn | Prineville, OR
Mike & Wendie Vermillion | Sisters, OR
David & Barbara Viskochil | Salt Lake City, UT
Todd Vogel & Christine Iversen | Bishop, CA
Kira Wages | Buffalo, WY
Lillian & Jim Wakeley | Dolores, CO
Alvin & Margaret Wall | Holyoke, CO
Clifford & Lian Wallman | Midway, UT
Judy Walton & Stephen Frenkel | Portland, OR
Richard M. Walton | Billings, MT
Jonathan Weber | Fairfax, CA
Pamela Wells | Sandpoint, ID
Patricia Wendel | Tucson, AZ
John Wentworth | Mammoth Lakes, CA
Robert Van Wetter | Lakewood, CO
Barbara Willcox | Grass Valley, CA
Susan Yates | Kirkland, WA
Thomas Yeoman & Megan MacNeill | Bend, OR
Hugh & Karen Zackheim | Helena, MT
Renate & John Zinn | Santa Fe, NM

FRIEND

Anonymous (9)
In honor of Greg Hilliard | Phoenix, AZ
In honor of Teri & Mark Vlasak | Fort Collins, CO
James P. Walsh, in memory of Gilbert White
In memory of Gerty Fitzpatrick
In memory of David Flanigan
In memory of Bill Fraser
In memory of Louis & Teresa Rinaldo
In memory of Rus Weathers
In memory of Ann Zwinger
Christine Bartels | Palo Alto, CA
John & Naomi Bishop | Portland, OR
Courtney Carswell | Santa Fe, NM
Joseph P. Christy | Santa Cruz, CA
Lee S. Derr | Colorado Springs, CO
Paul Drakos & Vibeke Wilberg | Santa Fe, NM
Larry Eng | Sandpoint, ID
Sarah Stiger Ewing | Tetonia, ID
Andres Fernandez | Boulder, CO
Mike & Molly Frank | Littleton, CO
John Gerstle | Boulder, CO

Farewell to a longtime editor

Big changes are afoot at *High Country News*. After 13 years here, our senior editor, **Jodi Peterson**, is headed out for a new adventure. Jodi came to the magazine as an intern, in 2004, and went on to become managing editor, a post she left in 2015 to focus on editing and mentoring. Now, she is taking her passion for the West to a local nonprofit, The Nature Connection, which provides fun, educational outdoor experiences for youth and community members in western Colorado.

"Jodi has been an integral part of *HCN*, and we will miss her supernatural eye for detail and flaws in logic, which she brought to bear on all the enigmas of the West," Editor-in-Chief Brian Calvert said. Jodi said she is grateful for all the years she has been able to work alongside such talented, passionate people. "That has been one of the most fun things about this job," she said, "working with people who really believe in what we are doing and give their all to it." Fortunately, Jodi will remain in Paonia and keep in touch, working for *HCN* as a contributing editor.

At the end of January, at a quarterly meeting, **Anastasia Greene** became the newest member of our board of directors. Anastasia lives in Seattle and works as a regional communications manager at The Wilderness Society, a nonprofit that seeks to protect wild places.

Meanwhile, we're meeting new friends at our home office.

Paonia transplant **Teresa Keller** stopped in one afternoon to take a tour with her 5-year-old daughter, Indigo. Teresa started reading *High Country News* when she moved to the Colorado Rockies in 2005, though she has since (*gasp!*) let her subscription lapse. Drawn to the notion of small-town living, she relocated to Paonia with her husband and two children over the summer. **Rex** and **Liz Thomas** of Grand Junction dropped by recently while on a "drive-about," inspired to visit after coming across old copies of *High Country News* at their local gym. Avid ATVers, they said they love exploring the beauty of our public lands — and they left Paonia as new subscribers!

In February, we bid farewell to **Abigail Censky**, an undergraduate from Colorado College, who spent three weeks with us producing a radio documentary about the history of *HCN* and its legacy for Western journalism. We look forward to hearing it on KVNF, our local community radio station.

Finally, we have a few corrections. In "Saints and sinners in the Southwest" (*HCN*, 2/05/18) we incorrectly stated that *Breaking Bad* was an HBO show; it aired on AMC. In "A tale of two housing crises, rural and urban" (*HCN*, 2/05/18) we misstated the year that Jennifer Kehoe passed away; it was 2013. We also misidentified Fannie Sandoval, who does not use the middle name "Mae."

—Jessica Kutz, for the staff



Jodi Peterson checks the *HCN* flats for a final time. BROOKE WARREN

DRILLING C



In Navajo Country, efforts to slow oil and gas development face

On the warm, pre-monsoon night of July 11, 2016, fire broke out among a cluster of six newly drilled oil wells near the small Navajo community of Nageezi, New Mexico. The residents of nearby homes fled to the highway, where they watched huge curdling balls of orange flame boil up into the vast bowl of dark sky above their corner of the Greater Chaco Region.

When someone texted Kendra Pinto, who lives several miles away, she raced to join the frightened spectators and watched, stunned, as the conflagration engulfed all of WPX Energy's equipment, setting off a series of explosions that shook the earth and sent up thick clouds of burnt hydrocarbons.

"I saw the flames ... black smoke streaking into the sky," Pinto told me as we sat in the dappled shade of a small cottonwood outside the Counselor

Chapter House just over a year later. Wearing denim shorts, a tank top and beaded earrings, she recalled how, in the years before the fire, she had gotten involved in the effort to rein in oil and gas development, joining a ragtag group of regional and local environmentalists, archaeologists and tribal officials working to protect the Navajo communities of Nageezi, Lybrook and Counselor, and the millennia-old cultural landscape that radiates out from Chaco Culture National Historic Park.

Like her grandmother before her, Pinto, who is in her early 30s, grew up here, in an area of bone-white sandstone cliffs, fragrant piñon and juniper forest, sagebrush and sensuous, deep-purple and gray badlands, a landscape that Georgia O'Keeffe once described as "a beautiful, untouched lonely-feeling place — part of

what I call the Far Away." The surrounding San Juan Basin had seen successive natural gas frenzies since the 1920s, but this part of it had mostly been spared in more recent times, its oil deposits thought to be tapped out. Then, around 2012, high oil prices and drilling and fracking advances sparked new interest in the Chaco region. First came the landmen with their leases and promises of fat checks, at least for those who owned land allotments and mineral rights. Then drill rigs and fracking apparatus sprang up in the places where Pinto's grandmother had gathered herbs and piñon nuts. And Pinto watched sadly as a steady stream of tanker trucks kicked up plumes of dust on the once-quiet caliche roads.

Then the fire erupted in 2016, burning for four days and consuming 36 tanks of crude oil and produced wastewater.

HACO

FEATURE BY JONATHAN THOMPSON



Oil rigs dot the landscape where a wild horse grazes in the Greater Chaco area. ROB ZEIGLER

a formidable opponent: History

No one died in the fire; it didn't even significantly hinder production. Yet it left a lasting scar on the collective psyche of the people around here, Pinto said. And it injected a sense of urgency into her community: "That's when I said, 'They can't treat us this way.'"

Pinto had been inspired by other causes that summer, particularly the effort led by five tribes, including the Navajo Nation, to save the area known as Bears Ears in southeastern Utah. And she had traveled to one of the Standing Rock resistance camps in North Dakota, where she and her comrades hoped to stop a crude oil pipeline from crossing Lake Oahe. Pinto dreamed of bringing some of that activist energy back to the Chaco struggle, which some media outlets touted as the "next Standing Rock."

Chaco, however, is far more compli-

cated than those other fights. Though the threats to the environment and communities from energy development are arguably greater here than at Standing Rock or Bears Ears, Chaco has not attracted the same kind of attention. There are no movie stars or major politicians going to jail for blocking the tanker trucks' paths, no outdoor gear corporations pouring money into slick videos to stop the battalions of drill rigs from overrunning Indigenous homelands.

Yet that hasn't discouraged the Chaco resistance. If anything, this scrappy, underfunded, sometimes shaky alliance is gaining momentum, forging its own way through a thicket of complicated relationships that stretch back hundreds of years and that have always favored industry, even under the most progressive administrations in Washington, D.C.

TO UNDERSTAND WHAT'S GOING ON in the Greater Chaco Region, you have to start with the land, 2,000 square miles of high desert located in the hydrocarbon hot spot known as the San Juan Basin. Because of the pattern of land ownership — a hodgepodge of federal, tribal, state, private and Indian allotment land — it's called the Checkerboard, but it's actually more chaotic, like a patchwork quilt stitched together by a nearsighted drunkard. It is that way by design, the outcome of a century-long systematic land grab.

After the Pueblo people moved on from the communities and structures they had built and lived in for hundreds of years, the Diné, or Navajo, moved into the Four Corners country, establishing a 40,000-square-mile homeland bounded by four sacred peaks. At the heart of this civilization was Huerfano Peak, within



A well pad and infrastructure can be seen from the Twin Angels site, a Chaco outlier, in Kutz Canyon in northwestern New Mexico.

JONATHAN THOMPSON

the Chaco region and just a dozen miles north of Nageezi.

The Spanish and then Mexican colonizers who appeared centuries later were not gentle; they attacked Navajo homes and kidnapped thousands of Navajo and other Native American children and held them as slaves. But it wasn't until the white American miners, ranchers, settlers and soldiers arrived that any concerted effort to rob the Diné of their land began. And when that happened, it was brutal.

In 1863 Kit Carson, then serving as a field commander for the U.S. Army, led troops across Navajo country, slaughtering sheep and goats, hacking down peach orchards and torching cornfields, starving the people into surrender. Army troops then forced some 9,000 survivors on the infamous “Long Walk” to Bosque Redondo in southeastern New Mexico, a barren swath of alkali dirt that was more concentration camp than reservation. Brig. Gen. James Carleton, who planned Carson's campaign, laid out the rationale for the killing and oppression in 1864: “By the subjugation and colonization of the Navajo tribe, we gain for civilization their whole country, which ... by far the best pastoral region between the two oceans, is said to abound in the precious as well as the useful metals.”

Bosque Redondo was a disaster

— captives fell ill and died and mass incarceration cost the federal government dearly. So in 1868, the Indian Peace Commission sent Lt. Gen. William Tecumseh Sherman to come up with a solution. After listening to a Navajo leader named Barboncito wax eloquently about his people's existential yearning for their homeland, Sherman decided to let the Navajo people go.

The rectangular reservation laid out in the Treaty of 1868 was only about one-eighth the size of the original homeland. It included very little arable land and left out important religious sites. Though the treaty ordered the people to live only on the reservation, Sherman's instructions to the headmen were more ambiguous, and perhaps muddled in translation. But the message the Navajo received was simple: You are free to go home.

So hundreds of families returned to the land beyond the reservation's eastern boundary, an area now known as the Greater Chaco Region. Federal officials on the ground repeatedly urged the president to extend the reservation boundaries to encompass this land and the holy sites. But New Mexico politicians, pressured by white stockmen hungry for more land, successfully lobbied against them. As a concession, the feds eventually suggested that individual Navajos claim 160-acre

plots on the public domain under the 1887 General Allotment Act. Typically, this law was applied to reservation land, where tribal members got first dibs on parcels before the rest of the reservation was opened up to homesteading — an insidious form of land grab that fractured tribal communities.

Here in Chaco, however, the Navajos competed head-to-head with white homesteaders to hold on to tiny parcels of their own homeland. And the game was rigged: If a family was away at summer herding camp when the Indian agent came to their winter hogan to process an allotment claim, they lost the opportunity to file. And when Navajos did make claims, white homesteaders managed to get them nullified by alleging that they weren't making the proper “improvements” on the land in question.

As a result, untold numbers of Navajo people ended up living as “unauthorized occupants” on public domain land in the Chaco region, considered squatters on their own ancestral territory. Over time, the Navajo Nation acquired much of those lands through purchases and swaps, and today the descendants of those earlier occupants live on tribal (albeit not reservation) land. Those parcels share boundaries with some 4,000 disparate Indian allotments covering



Kendra Pinto, a young Navajo activist, overlooks the Bureau of Land Management lands behind her home in Twin Pines, New Mexico. Pinto wants to make companies and the BLM accountable for damage being done in the small communities of the Greater Chaco area. ROB ZEIGLER

a total of 600,000 acres, which themselves are scattered against a backdrop of federal Bureau of Land Management acreage. Allotments are “private,” but are in federal trust indefinitely, and cannot be sold, gifted or willed to anyone. When the original allottee dies, ownership — along with mineral rights — are divided up, or fractionated, between all of his or her heirs.

Today, jurisdiction over oil and gas development on this fractured landscape is as confounding as the surface ownership patterns. Most of the tribal land is “split estate,” meaning the Navajo Nation owns the surface, but the federal government controls — and gets royalties from — the oil and gas underneath. The allottees receive royalties from extraction of minerals under their lands, but all leases must go through the Bureau of Indian Affairs. Because today’s oil wells can extend two or more miles horizontally, the oil they extract is often a combination of allotment and federal minerals — known as a unit or pool. That means multiple agencies are involved in permitting and oversight.

“It’s a real problem, because when you don’t know who’s in charge it leads to a total lack of accountability,” Pinto says. “Who’s really watching the oil companies and oilfield workers?”

THE OFFICIAL ANSWER to Pinto’s question is: The Farmington Field Office of the BLM, which sits at the top of this jurisdictional layer cake. Though the agency has no say over leasing of allotment or tribal lands, it does handle permitting on those lands, along with leasing and permitting of all federal lands and minerals. It is currently working on a new environmental analysis of drilling in the Chaco region, due out next year, but right now it’s still operating under a plan that’s 15 years old, a fact that concerns people like Pinto.

The 2003 plan — an analysis of the impacts caused by full-field development — was created under George W. Bush, when the always-porous line between industry and regulatory agencies in the New Mexico energy patch was more of a sieve. Natural gas prices were skyrocketing, and industry was eager to drill for coalbed methane on the mostly federal land north of the Checkerboard. The feds were just as eager to hand it over to them. Steve Henke, then-BLM district manager, issued a plan that opened the door to 9,942 new wells. (Henke was later caught accepting golf tickets and other gifts from local energy companies. He left the BLM in 2010 and promptly became president of the New Mexico Oil and Gas Association, the advocacy group for the

industry’s big players.)

Soon thereafter, oil companies started poking around in the Gallup play, the oil-bearing shale formation in the Chaco region, south of the old natural gas hotspots. Acknowledging that the horizontal drilling and multi-stage hydraulic fracturing required here would be far more intensive than anything the region had seen before, the BLM in 2014 launched a multi-year process to amend the 2003 plan for Chaco-specific development. Around the same time, Henke, on behalf of the state oil and gas group, donated \$800,000 to the state BLM office to hire more staff in order to speed permitting. Henke then wrote to his Farmington colleagues, urging them not to “run from the 2003 document nor to ignore the job you are doing on site specific analyses.”

It appears that the BLM heeded Henke’s request. Since 2010, the field office has leased out more than 50,000 acres and issued more than 500 drilling permits, mostly in the Chaco area. In early 2017, the BLM leased 842 acres on four parcels, despite the fact that development could affect 314 cultural features and a mesa known as *Sis Naateel*, home of Navajo deities, a sacred spring and ceremonial deer-hunting grounds. This March, the BLM plans to lease 25 additional parcels covering nearly 4,500 acres around Chaco,



Citizen watchdog Daniel Tso, a former Navajo Nation tribal council delegate, reviews a map of Bureau of Land Management lands in Greater Chaco outside Torreon Chapter House.

ROB ZEIGLER

in an area where more than 90 percent of the land is already leased.

Agency officials told me that since the 2003 plan specified “no geographical horizon,” and denying permits to leaseholders would be a “violation of property rights,” the BLM could continue to permit thousands of new wells on a case-by-case basis before it hits the limit — with or without the new analysis.

“I don’t think the Farmington BLM is making the decisions; industry is,” said Mike Eisenfeld of the San Juan Citizens Alliance, who is perhaps the only professional environmentalist residing in Farmington. “They are being manipulated. And under Trump, it will be exacerbated. They’ll try to lease everything.”

ON A HOT DAY LAST AUGUST, as thunderheads raced across the sky like schooners, former Navajo Nation tribal council delegate and citizen watchdog Daniel Tso, wearing boots, a big silver belt buckle, wire-rimmed glasses and a straw cowboy hat, his gray hair pulled back in a traditional bun, showed me how these industry-friendly practices played out on the ground. My little car was clearly no match for the rain-slicked roads, so I hopped into his truck and we ventured into the sagebrush ocean south of Nageezi.

Soon, we reached one of the new wells permitted under the 2003 plan. The

Cyclone Rig No. 32, a hulking baby-blue beast, loomed over low hills and a double-wide home about 600 feet away. Like a retro-sci-fi monster, the rig can “walk” across a drill pad, and just days after Tso and I visited, the two dozen workers here set a world drilling-speed record, churning through 8,370 feet of shale in just 24 hours.

It’s a supersized version of a scene that has played out thousands of times over the last century in the San Juan Basin, where no one is immune to the effects of oil and gas extraction. Shiny distilling columns loom over a Catholic cemetery near Bloomfield, pumpjacks grace the Farmington golf course sand traps, and the horse track sits next to a Superfund site. It is all part of a grand transaction between the communities and industry. Locals live with the industrialization of their neighborhoods. In return, oil and gas companies pay royalties and taxes and provide jobs, which result in better infrastructure, reduced economic inequality, low property taxes, and, at least in Farmington, three Starbucks, two Walmart Supercenters and a baseball team called the Frackers. It’s a lopsided transaction, especially when the booms bust, but a transaction nonetheless.

Down here in the Chaco Region, however, the deal feels more like outright theft. Oil companies still pay taxes and royalties and employ people, but nearly

all the cash generated by the wells is, like the oil they extract, piped far away. Tax revenues on drilling and production go to Santa Fe, then get redistributed statewide to communities that have the resources to pursue them. Rig and fracking crews are often contractors, based in Wyoming, Texas or Colorado. They’ll stay and eat in Farmington or Bloomfield, not here, where there are no hotels or grocery stores, not even a laundromat.

This WPX Energy well, like the nearby ones that blew up in 2016, is on Navajo allotment land, and is targeting oil in the 12,800-acre West Lybrook pool, a mingling of federal and allotment minerals. About 900 people share ownership of the 35 allotments in this pool. In order for the oil companies to secure leases, a majority of each allotment’s owners must sign off. “When the landman or his liaison shows up and says, ‘Sign on the line and you’ll get a fat check,’ and when you’ve got 60 to 80 percent unemployment, you say, ‘Sure,’” Tso said.

Terms of allotment leases are not public. But if rates are on par with those on nearby federal lands, then a single allotment could bring in a signing bonus of \$480,000 or more, which would then be divided equally between the owners. Because many allotments are highly fractionated, each owner might only get a few thousand dollars, though a lease can yield a hefty chunk of change if the

owners are few. Once the wells start producing, the allottees receive royalty checks, too. According to state records, WPX Energy grossed some \$30 million from the allotment portion of the West Lybrook pool in 2016, and paid out an average of \$4,680 per allottee — some got a lot less, others more. While the checks will increase along with oil prices, they will also decrease over time as production diminishes.

Even on the lower end, the payments can make a big difference. A grandmother may, for the first time in her life, get a floor in her home that isn't dirt, a roof that doesn't leak, electric lights, a vehicle that can navigate the rutted roads. Yet allotment checks are as likely to be sent to Albuquerque or Phoenix mailboxes as to ones in Lybrook or Nageezi. And even if it's the latter, the cash doesn't linger locally. That's because, unlike in Farmington or Aztec, there's no economic infrastructure to capture the wealth and benefit the community as a whole.

An allottee family might live next door to one living on tribal land. Both will bear the burden of hosting a nearby well, yet only the allottee will receive any benefits. "It creates a system of haves and have-nots," said Gloria Chiquito, whose parents are allottees. "It's separating families. ... Families are fighting one another." Stories abound of grandchildren swindling grandparents, of envy-fueled burglaries, violence — even murder.

Despite the economic incentives, some allottees are among the most outspoken opponents of development. Residents worry about livestock drinking out of unfenced waste pits, speeding trucks hitting animals, and the ubiquitous moon dust that rises into the air behind vehicles and settles on every nearby surface. People near wells complain about burning eyes, scratchy throats, dizziness and nausea — symptoms associated with prolonged exposure to low levels of benzene and hydrogen sulfide, which occur naturally in oil and natural gas and can seep into the

air during every step of extraction and processing, even from tanker trucks.

Tso and I followed a stream of those trucks along dusty roads in the direction of the spectacular pueblos of Chaco Canyon, some 15 miles distant. We saw men in grimy coveralls wrestling with giant drillbits, and orange flares burning off methane, nitrogen and other byproducts from recently drilled wells. One tanker stopped, the door swung open and the driver hopped out of the truck, long black hair spilling out from under her hardhat. She looked Navajo; Tso said that locals are often hired as truck drivers because they know the roads. She yanked at a valve on the back of her rig, releasing a thick stream of liquid onto the side of the road.

We arrived at another roaring complex of tanks and pipes, a fracking job in process. A smell like that of a hot, dirty car engine wafted on the air as the workers pumped millions of gallons of nitrogen gel and water, along with tons of sand and a soup of chemicals, miles into the earth at pressures so high that it shattered the rock, freeing the oil that had been locked inside there for millions of years.

I tried to imagine what this place looked like a thousand years ago, when it was populated by a society of Pueblo farmers and hunters and thinkers and builders. And I wondered what future archaeologists would make of all this. Will they puzzle over the practical applications of this byzantine assemblage of tanks? Or theorize that it was a monument — perhaps a memorial — to an insatiable hunger for a resource that by then will be long tapped out?

WHEN PRESIDENT THEODORE ROOSEVELT wielded the brand-new Antiquities Act in 1907 to create Chaco Canyon National Monument, he drew the boundaries around what is now known as "downtown Chaco," a handful of structures including the 800-room Pueblo Bonito, constructed between the ninth and 12th centuries by

ancestors of today's Pueblo people. That was merely the center of the Chacoan world, however, which extended over 100 miles across the Four Corners region and is represented by more than 200 outliers, or great houses, that share architectural traits with Pueblo Bonito. No one knows if this was a political empire, a religious or cultural society, or simply a school of architecture. But it's clear that outliers — along with thousands of smaller sites, shrines and architectural features, their functions still unknown — did not exist in isolation. They were part of a vast cultural tapestry woven into the natural landscape.

On a cloudless, scorching August afternoon, I made my way to the Pierre's Site outlier, about 10 miles north of the park's boundary, by car and then on foot via a maze of oil-patch roads. It was a surreal and lonely journey, my only companions pumpjacks bobbing up and down in the sea of sage and a small herd of horses, their manes shiny in the sun.

Once there, I climbed onto the "Acropolis," an aptly named flat-topped butte upon which three of the structures in the complex sit. Unlike the buildings in Chaco Canyon, these haven't been excavated or stabilized, so at first glance they appear to be amorphous piles of rock. But, on closer inspection, the outlines of old walls, kivas and rooms became visible, like the curves of a body under a thick blanket.

Various layers of protection cover Chacoan sites. The park itself is off-limits to all oil and gas development. Pierre's Site and several other outliers are part of the Chaco Culture Archaeological Protection Sites Program, and all sites on federal land are shielded by the Archaeological Resources Protection Act and Section 106 of the National Historic Preservation Act, which requires oil companies to conduct a cultural inventory of all land in the path of development. If the surveyors happen upon a "significant" site, the well pad or road or pipeline must be relocated,

Tanks containing oil and produced water at a WPX Energy oil well site near Nageezi, New Mexico.

JONATHAN THOMPSON



"Most of our pueblos are still transmitting their migration history through oral means. So when you have development that begins to impact many of these sites ... they are literally destroying the pages of the history book of the Pueblo people."

—Theresa Pasqual, former director of Acoma Pueblo's Historic Preservation Office, and a descendant of the Pueblo people

a process known as "identify and avoid."

Thanks to these laws, the major structures at Pierre's Site have remained unmarred by development. The ambience has not. Ruth Van Dyke, a professor of anthropology at Binghamton University, cataloged the impacts of oil and gas development on the sound- and view-scapes at Pierre's. "I found that, despite the due diligence agencies have exercised to protect the ground footprint of Pierre's, there have been significant impacts," she wrote. Twelve pumpjacks are visible from the Acropolis. When I was there, the *whir-pop-pop-whir* of the machines was irritatingly audible, affirming Van Dyke's observation: "Rather than a sacred landscape and part of a UNESCO World Heritage Site, the Pierre's community had the feeling of an industrial park."

The drilling threatens more than aesthetics. Taking cues from their Native American colleagues, archaeologists are increasingly going beyond analyzing just the material remains of cultures. Rather, they are, as Van Dyke puts it, trying "to understand an ancient sense of place ... particularly sensory dimensions of place." That's not easy when machinery is noisily grinding away all around you.

Meanwhile, "identify and avoid," the only real protection for a vast majority of sites, is hardly comprehensive. "That's how ancient landscapes get fragmented," says Paul Reed, a longtime Chaco scholar. For a pipeline, the inventory follows a narrow swath along the right of way, and nothing else. The project is steered to avoid disturbing ancient structures, but it could still end up bisecting a village, says Reed, or plowing through an ancient cornfield or networks of "other super-subtle things going on that are part of understanding that landscape."

Pierre's lies along the Great North Road, which stretches directly north of Chaco Canyon for 30 miles or more. It may have been a symbolic path through time, connecting old worlds with new, or

a reminder of the power Chaco-central wielded over its outliers. Reed calls it "a landscape monument on a large scale." Similar "roads" appear all over the Chaco world. A cultural inventory could easily miss segments that aren't readily apparent, or other features that appear to be natural but served a cultural function, like a stone monolith that served as a shrine.

"Even though agencies try to mitigate the impact, it isn't enough, because you've literally destroyed the context in which those things exist," says Theresa Pasqual, former director of Acoma Pueblo's Historic Preservation Office, and a descendant of the Pueblo people who occupied the Four Corners for thousands of years. "Most of our pueblos are still transmitting their migration history through oral means. So when you have development that begins to impact many of these sites — that range in size from the grandeur of Chaco Canyon or Mesa Verde to very small unknown sites that still remain un-surveyed and unknown to the public — they are literally destroying the pages of the history book of the Pueblo people."

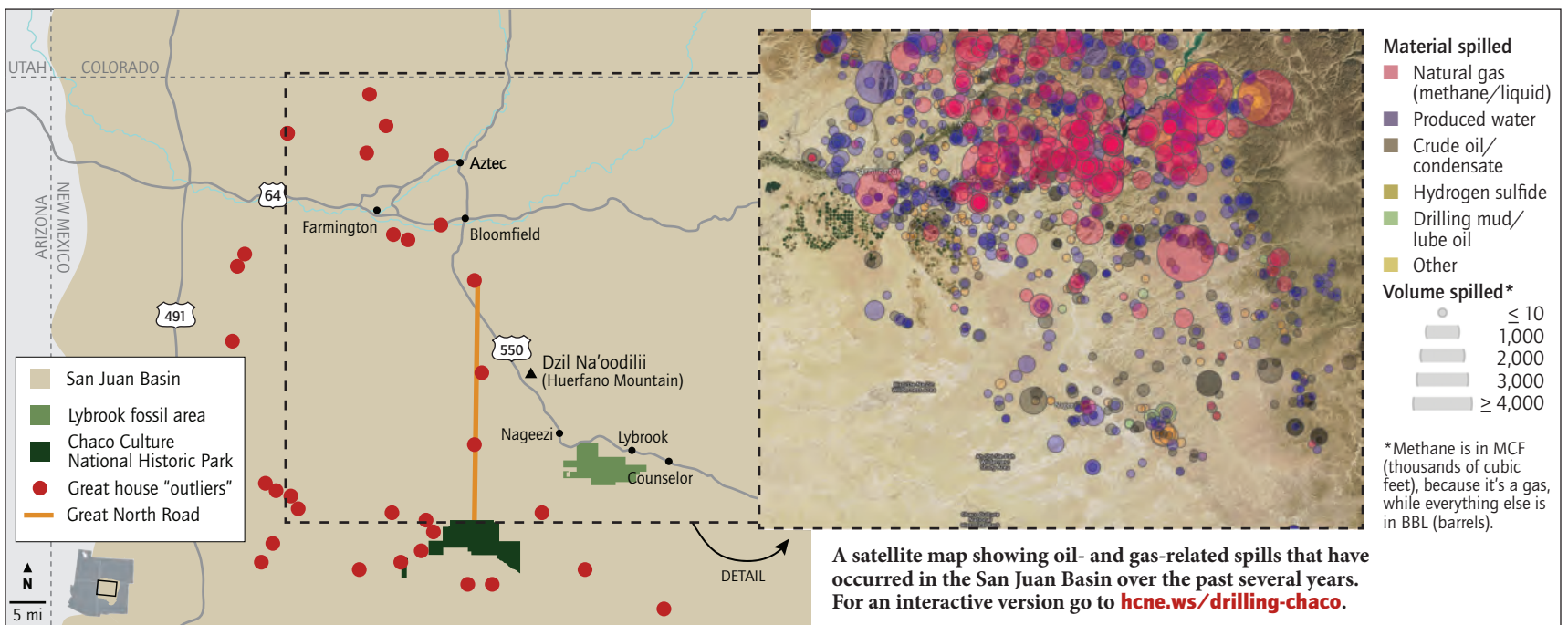
"We need to go beyond 'identify and avoid,'" Reed says. "But we're not gonna draw a big circle around everything and say, 'No more development.'" It's simply too late for that here. So Reed and his allies, including the National Parks Conservation Association and Pueblo tribal leaders, asked the BLM to implement a master leasing plan for the area, an approach introduced by the Obama administration to bring more public input into what had been a "sight-unseen" leasing process. The proposal would put about a half-million acres directly surrounding the park, along with the rest of the Great North Road, off-limits to future leasing. Existing leases in the protection zone could still be developed, but only on the condition that quiet, darkness and viewsheds are preserved.

But such a plan is not on the table for the current administration. And it has its own drawbacks: It wouldn't apply to allotment lands, so even more development could be pushed onto the Navajo communities of Lybrook, Nageezi and Counselor. That prospect has unearthed old tensions — between advocates for the past and those fighting for modern-day residents — that echo those from the original designation of the Chaco monument, when Navajos who lived there were evicted and had their allotments cancelled.

But Marissa Naranjo, co-founder of the Diné-Pueblo Youth Solidarity Coalition, emphasizes that despite divisions, the fight to save ancestral Pueblo homelands and the fight to protect current Navajo homelands are one and the same. "It's not just about protecting cultural resources," says Naranjo, a community organizer from Santa Clara Pueblo, east of the Navajo Nation. Like Pinto, she's part of what may be the most vital branch of the Chaco movement: young, Native American women. "The attack on our homelands necessitates solidarity with the Diné. They are the caretakers of that land. They are on the front lines every day, dealing with health and social impacts. ... That whole landscape connects us."

LAST AUGUST, PRIOR TO OUR OIL-PATCH TOUR, Tso invited me to the front lines to witness the "power base" of the movement firsthand. It was neither a protest camp nor the headquarters of an environmental group, simply a regular meeting of the Ojo Encino Chapter.

Chapters were introduced to the Navajo Nation in 1927, four years after the federal government, needing a sole entity to sign off on oil leases on tribal land, instituted the centralized tribal government that endures today. But they hark back to the pre-Long Walk days, when the tribe was divided into units of a dozen or more families, each governed by





naataanii, or headmen.

Today, there are 110 chapters, the most local political subdivision of the Navajo Nation. The Ojo Encino meeting was similar to many county meetings I've attended, except for the kids selling meat-and-potato burritos, fry bread and sno-cones from a window in the back. And while the officers ran the meeting, the entire audience voted on every action item, from a resolution to approve college scholarships to requests by residents to get solar panels installed at their homes.

Like many rural Western county commissioners, who feel that D.C. bureaucrats ignore their concerns, members of far-flung chapters feel invisible to the tribal government in Window Rock, Arizona. "The people out here are the same as the people in Tuba City or Kayenta," said Chapter President George Werito, a slim man with a ready smile in a red Ojo Encino Day School Braves shirt. "But they (the Navajo Nation leaders) don't even know where we are. They give us no help."

Hoping to amplify their chapters' individual voices, the Ojo Encino, Torreon and Counselor chapters came together to form the Tri-Chapter alliance in 2014 at the height of the oil boom. Drilling has hit Counselor hard, and Torreon and Ojo Encino may be next. "It's coming this way,

so we've got to get ready for it," Werito said.

Ultimately, they'd like to bring all the chapters in the region together to create legally binding regulations — greater setbacks from homes, impact fees for fixing roads, a more equitable system of revenue sharing — on oil and gas development. Getting Window Rock's backing, however, hasn't been easy. Fossil fuels have long been the Navajo Nation's prime source of income, and though it receives very little revenue from oil development on the Checkerboard because of the land-use mishmash, many delegates are leery of opposing drilling or coal mining.

Looming threats may change their tune, however. The Department of Interior's evisceration of environmental protections that "burden domestic industry" could hit Chaco and the surrounding San Juan Basin — home to 40,000 oil and gas wells and the Four Corners Methane Hot Spot — especially hard. On the chopping block are new hydraulic fracturing regulations, master leasing plans and the land-use designation that keeps rigs off much of the Great North Road. If the 2016 well pad fire was the spark that ignited the Chaco resistance, then the Trump administration's drive to achieve "energy dominance" is like gasoline, further enflaming the broad-based effort.

Still, this is no Standing Rock. The issues here are more nuanced, the beauty and intrinsic value of the San Juan Basin of a harsher, more subtle sort than the serpentine canyons of the Bears Ears area. The Chaco movement is unlikely to ever explode onto the national stage, but that's just fine with its leaders.

"I was very inspired by the energy, that momentum, at Standing Rock," says Naranjo. "But we also realize that this movement to protect Chaco is very, very different. That (Chaco's) entire landscape is sacred. There are outlier sites, prayer sites; it's alive, it's active. We've been very careful not to initiate an occupation movement there because that would be extremely disrespectful to our ancestors there."

With so many wells already in place, the coalition is focusing not on shutting down industry, but on fighting new leases and ensuring compliance and enforcement of regulations. Last year, Pinto testified before Congress in favor of keeping the Obama-era methane rule that would have reduced emissions, not only of the potent greenhouse gas, but also benzene, volatile organic compounds and hydrogen sulfide. It would have also yielded more royalties for the federal government and the allottees. The Senate agreed to keep the rule in place, but Interior Secretary

A pumpjack as seen from within the Pierre's Site complex, a Chaco outlier. An unexcavated structure is perched on the conical hill in the foreground.

JONATHAN THOMPSON

Ryan Zinke is now trying to scrap it.

Late last year, the National Congress of American Indians joined the All Pueblo Council of Governors, the entire New Mexico Democratic congressional delegation, and even Navajo Nation President Russell Begaye in calling for a moratorium on all new leases in the Chaco region, at least until the new environmental analysis is complete. And in January, a coalition of environmental groups filed a formal protest against the March lease sale, joining more than 400 others in speaking out against it, including Acoma Pueblo, the Tri-Chapter alliance and the Nageezi Chapter.

The chapters have been one of the most significant, and unique, components of the movement. “This has always been a group effort,” Tso said, as he stood up before the Ojo Encino audience and, in Navajo and English, summarized resolutions supporting air-quality and health-impact monitoring in the oil patch. Pinto and others have been sampling air near facilities, and a coalition of affected chapters launched a *Hozhoogo Na’adah* assessment — a Diné-centered research model — to gain a more holistic understanding of how residents are affected by oil and gas development.

Tso talked about the Church Rock spill of 1979, about 80 miles west of here, where a uranium mill tailings dam busted, sending 1,100 tons of radioactive tailings and toxic effluent into the Rio Puerco of the West, contaminating count-



Stars shine over a campground at the Chaco Culture National Historical Park, an International Dark Sky Park threatened by methane flaring at oil and gas facilities. ROB ZEIGLER



Jonathan Thompson is a contributing editor at *High Country News*. He is the author of the new book, *River of Lost Souls: The Science, Politics, and Greed Behind the Gold King Mine Disaster*. @jonnypeace

This coverage is supported by contributors to the High Country News Enterprise Journalism Fund.

less water wells on the southern portion of the Checkerboard. “We don’t want that to be our story,” he said. Both resolutions passed resoundingly.

After the meeting adjourned, as I picked at the crumbs of *alkaan* — a sweet and smoky corn and flour cake that someone had brought — I considered what I had just witnessed. This is no explosive movement, scoring dramatic, if temporary, victories. It’s a slow and rumbling and lasting upswelling of protest truly rooted in the land, led by the people who call this place home. “There is a constant effort and movement to protect those

places,” Pasquale says. “And while they may seem small and incremental, they do lead to larger movements to protect these places that are important not just to the Pueblo people, but all of the people, all of the public, because it belongs to the greater story of all of us, of all of the human race.”

As I turned to leave, I caught a glimpse of a poster hanging on the wall. It portrayed a young Navajo woman wearing a squash-blossom necklace and a gas mask: “Don’t Just Walk In Beauty,” the bold lettering said. “Protect It! *Hózhó* (Beauty) Starts With You.” □



12th ANNUAL AMAZING EARTHFEST

May 13-19, 2018
Kanab, Utah

Celebrate And Explore America's
National Parks, Forests, Monuments
& Public Lands

**Southern Utah's Premier 7-Day Festival
of Discovery, Arts & Adventure!**

www.amazingearthfest.org
AmazingEarthfest



High Country News

For people who care about the West

outdoor & travel ISSUE

Reserve Now – Space is Limited!

Reservation Deadline: **April 23, 2018**
Materials Deadline: **April 27, 2018**
Publication Date: **May 14, 2018**

To Reserve Contact:
laurad@hcn.org or 800-311-5852

Mendenhall Loop by James Baker

Notice to our advertisers: You can place classified ads with our online classified system. Visit hcn.org/classifieds. March 2 is the deadline to place your print ad in the March 19 issue. Call 800-311-5852, or e-mail laurad@hcn.org for help or information.

Advertising Policy: We accept advertising because it helps pay the costs of publishing a high-quality, full-color magazine, where topics are well-researched and reported in an in-depth manner. The percentage of the magazine's income that is derived from advertising is modest, and the number of advertising pages will not exceed one-third of our printed pages annually.

BUSINESS OPPORTUNITIES

Conservationist? Irrigable land? Stellar seed-saving NGO is available to serious partner. Package must include financial support. Details: <http://seeds.ojaidigital.net>.

Advertising is a great way to support High Country News and get your word out – Consider a classified ad in HCN when you have a conservation or green technology job to fill, a conference or special event coming up, a house to sell, unique home and garden products, professional services to promote, travel opportunities or any other information you would like to get out to like-minded people. Visit <http://classifieds.hcn.org> or call 800-311-5852.

EDUCATION

Earn a master's of education with North Cascades Institute and Huxley College of the Environment at Western Washington University. We offer a unique professional residency program designed to prepare a cohort of students in all aspects of environmental education and nonprofit administration while living amid the towering peaks of the North Cascades. Now accepting applications for 2018! Visit ncascades.org/study to learn more.

EMPLOYMENT

Artemis Program Manager – The National Wildlife Federation's new sportswomen's initiative, Artemis, is key to the conservation movement's future and will play a defining role in NWF's public lands and sporting conservation portfolios. The Artemis Program Manager will work with NWF sporting and public lands staff to build a sportswomen's movement, and secure protection and enhancement of America's public lands, waters and wildlife. The employee will build strategic campaigns, expand our sporting capacity and maximize resources. To learn more about this role and see a complete job description with qualifications, please visit our website at www.nwf.org.

Wildlife Conservation Society seeks a Regional Director, Rocky Mountain West Region – The position will be based in Fort Collins, Colo., or Bozeman, Mont. Apply today at <https://tinyurl.com/ycm249rb>.



Waterston
DESERT WRITING PRIZE

ACCEPTING 2018 SUBMISSIONS
JANUARY 1-APRIL 1

Honoring creative nonfiction that illustrates:

- artistic excellence
- sensitivity to place
- desert literacy

The Prize recognizes the vital role deserts play worldwide in the ecosystem and the human narrative.

All writers encouraged to apply.

Winner receives \$2,000 cash award, a reception at High Desert Museum, Bend, Oregon, and residency at PLAYA, Summer Lake, Oregon.

Submission guidelines:
www.waterstondesertwritingprize.org

Waterston Desert Writing Prize is a 501 (c)(3) nonprofit organization.



Help our reporters spot the important stories.

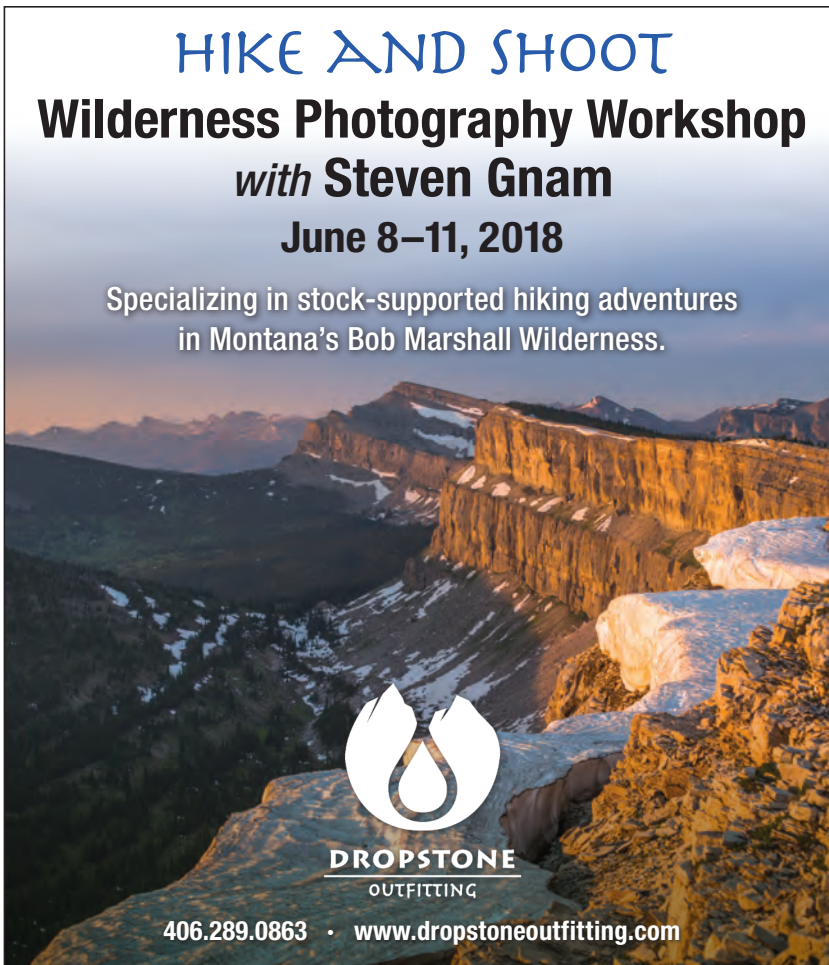
Consider including *High Country News* in your estate planning.

To learn more about our planned giving program, call or email:
Laurie Milford, Development Director • lauriem@hcn.org • 800-905-1155, x31
Or visit our website: hcn.org/support/planned-giving

Photo by Ron Wolf



TOM BIHN
SINCE 1972 - MADE IN U.S.A.



HIKE AND SHOOT
Wilderness Photography Workshop
with Steven Gnam
June 8–11, 2018

Specializing in stock-supported hiking adventures in Montana's Bob Marshall Wilderness.


DROPSTONE
OUTFITTING

406.289.0863 • www.dropstoneoutfitting.com

High Country News Editorial Internship Program

Work as a reporter,
gain real skills and
write in-depth stories for
our award-winning magazine.

Apply Today!

Details at:

hcn.org/about/internships

Photo by Michael Remke

LOWELL OBSERVATORY

DAYTIME TOURS | TELESCOPE VIEWING
INTERACTIVE EXHIBITS | OPEN YEAR-ROUND

www.lowell.edu | Flagstaff, AZ | (928) 774-3358

General Manager – Northern Water
Under general direction of the Board of Directors, the General Manager manages and directs the overall activities of Northern Water, including the Northern Colorado Water, Conservancy District, the Municipal Subdistrict, and their several water activity enterprises. See www.northernwater.org for details. EOE. carolyn.mccormick@peakhrconsulting.com.

The Montana Outdoor Science School in Bozeman seeks a new Executive Director. Go to www.outdoorscience.org/job-openings/.

Regional organizers, Billings, Mont.
The Western Organization of Resource Councils (WORC) seeks two experienced organizers to join our team. See full job announcement and how to apply on our website at www.worc.org.

Staff Attorney – Friends of the San Juans is looking for a Staff Attorney to join our team. <http://sanjuans.org/staffattorney/>.

Executive Director, Methow Valley Citizens Council (MVCC), Twisp, Wash.
Advocating for the Methow Valley's natural environment and rural character since 1976. Job description and application instructions at <http://bit.ly/mvccshiring>. Position open until filled.

Executive Director – Wildlands Restoration Volunteers – WRV's Board of Directors seeks an Executive Director to build on WRV's significant success and to lead the organization to new levels of achievement and impact. See www.wlrv.org for details. EOE

Seed Grower Manager – Restoration Seeds is seeking a part-time manager to build our seed grower network and help cultivate our seed collection. www.restorationseeds.com/blogs/inside-restoration-seeds/careers-and-job-openings.

HOME AND GARDEN

Naturally raised Heritage Heifers for sale – A fun group of Scottish Highland and longhorn cross heifers for sale, one-and-a-half-years old, gentle. Father a registered Scottish Highland bull. Mothers have tight udders, small teats, lots of milk and good feet. A cool starter herd for your land. 208-940-0827. dsuehaas22@gmail.com.

Western Native Seed – Specializing in native seeds and seed mixes for Western states. 719-942-3935.

MERCHANDISE

Enduring Performance in wide-ranging applications with environmentally friendly, extended drain AMSOIL synthetic lubricants. Wholesale accounts encouraged. 877-486-7645. www.PerformanceOils.US/index/html.

PROFESSIONAL SERVICES

Expert land steward – Available now for site conservator, property manager. View résumé at: <http://skills.ojaidigital.net>.

PUBLICATIONS AND BOOKS

Clovis – The most relevant environmental novel of 2018, with the most unlikely heroine you will never forget. 406-446-1277 clovisite@gmail.com. jackclinton.com.

REAL ESTATE FOR SALE

A 160-acre hidden paradise in northern Washington – Surrounded by Idaho Panhandle National Forest. Handcrafted home, barns, shop, garage, fruit trees, gardens, greenhouse, hay, pasture, wetlands, at headwaters of year-round creek. \$865,000. For details, contact 208-448-1776 or begolf014@gmail.com.

Jackson Hole – 34-acre conservation property abuts public three-bedroom/two bath, views of two ranges. wildlifebiologist@wyoming.com.

Glacier National Park views – 321 Acres, 4,500 feet waterfront on Duck Lake, lakeshore campsite, septic in place, aspen, meadows and wildflowers, five miles from park boundary. ducklake355@gmail.com.

Salmon River, Idaho – 1,300 square feet, off-grid home, quarter acre, well, fruit trees, large organic garden. gymnogyps@gmail.com. <http://jzrebski.wixsite.com/salmonriverhome>.

Endless trails, horse property, Rollins, Mont. – 20 acres in two adjacent 10-acre tracts, views of Flathead Lake, borders Weyerhaeuser timber land with countless available adventures. 28-gpm well with spigots, electric already to property. 406-794-9942. Richard.Dews@KW.com. <http://www.biglodgelane.com>.

TOURS AND TRAVEL

Grand Staircase-Escalante, Utah
The Old Bailey Place is where to hang your hat when visiting Grand Staircase. www.theoldbaileyplace.com.

COPPER CANYON, MEXICO, TREKKING
Ten-day tour, from Los Mochis airport, two nights El Fuerte, train, two nights canyon rim hotel, five nights trek-style camping. \$2,000 pp/do www.coppercanyontrails.org. 520-324-0209.

Learning Adventures on the Colorado Plateau – Small group, active, adult field seminars with guest experts, plus private custom trip options for your family or group. Canyonlands Field Institute, Moab, Utah. 800-860-5262. www.cfimoab.org.

Coming to Tucson? Popular vacation house, everything furnished. Rent by day, week, month. Two-bedroom, one bath. Large enclosed yards. Dog-friendly. Contact Lee at cloler@cox.net or 520-791-9246.

UNIVERSITIES AND SCHOOLS

Instructors: Get High Country News for FREE in your classroom!
The HCNU Classroom Program gives FREE magazines and/or digital access to instructors and students. Sign up at hcn.org/edu.

Beavers *continued from page 9*

communities were growing, too.

Like people, beavers are inventive tool-users. They favor valley bottoms and relentlessly modify their environments. They're notorious for clogging culverts, felling timber, and, as Susan Sherosick knows too well, flooding yards. Those conflicts are particularly acute along the beaver-rich streams that vein western Oregon. According to records acquired by the Center for Biological Diversity, between 2010 and 2016, Wildlife Services killed 282 beavers in Coos County, 198 in Douglas County, and 292 in Lincoln County.

Beavers share Oregon's creeks with nearly a dozen threatened and endangered runs of chinook, chum, sockeye and coho salmon, as well as other protected fish, including steelhead, bull trout and Warner suckers. A growing body of evidence suggests that by creating ponds, storing water, and converting straight streams

the Endangered Species Act to consult with the Fisheries Service to ensure that its beaver-killing isn't jeopardizing listed salmon. On Dec. 27, the gambit cleared its first hurdle. Wildlife Services notified the center that it had agreed to consult — and that it would let beavers live while the review progressed. The agency, wrote David Williams, its Oregon director, "has ceased all aquatic mammal damage management activities in Oregon related to damage caused by beaver, river otter, muskrat, and mink out of an abundance of caution."

Now comes a trek through the bureaucratic maze. Wildlife Services consented to submit a biological assessment to the National Marine Fisheries Service by Feb. 28. If both agencies agree that killing beavers is likely to harm protected fish, they'll undergo a formal consultation that could end with a biological opinion, a document specifying measures for reducing damage to salmon habitat. In neighboring Washington, where Wildlife Services did con-

willingness to consult in Oregon hints that the agency is capable of viewing beavers as boons as well as pests. And further legal action seems likely: "We're talking to all of our partners about beavers," says Andrew Hawley, staff attorney at the Western Environmental Law Center, "and what we can be doing to help change how they're managed throughout the West."

The Beaver State has not been kind to its eponymous rodents. Oregon, in defiance of biology, classifies these herbivores as predators, a designation that allows landowners to shoot them on sight. Some advocates worry that, if Wildlife Services' ability to control beavers is curtailed, the agency's "cooperators" — the counties and other land managers with whom it contracts — will simply hire private trappers, increasing undocumented killings. Beaver removal could continue unabated, but without the government tracking kills: a data-deficient free-for-all.

Adkins, though, is more optimistic. Because it's a federal agency, she points out, Wildlife Services offers services to cooperators at prices that private trappers can't match. By limiting federally subsidized trapping on salmon streams, conservationists hope to spur land managers to seek less deadly solutions. "Lethal management will probably never be taken off the books," says Leonard Houston, a Douglas County resident who has live-trapped and relocated dozens of beavers under the auspices of the South Umpqua Rural Community Partnership, "but our hope is that this will make it a last option."

For one beaver colony, the case has already made a difference. After Susan Sherosick's trapping requests went unanswered, she contacted Houston, whose name she'd seen in the newspaper. One Tuesday in January, Houston and Jakob Shockey, the founder of a company called Beaver State Wildlife Solutions, visited Sherosick's land to install a flow device, a pipe-and-fence contraption designed to lower beaver ponds, thereby sparing both property and the animals' lives. Shockey's services have been solicited elsewhere in Oregon by the National Marine Fisheries Service, the Department of Fish and Wildlife, and myriad watershed councils and transportation departments. "There are lots of people interested in seeing beavers persist on the landscape," he says.

Sherosick, who appreciates her beavers despite the headaches, is one of them. And the price was right: Shockey's flow device, funded by the Rural Community Partnership, didn't cost her a penny. When I spoke with her several days later, she seemed cautiously optimistic about her ability to cohabitate with her buck-toothed neighbors. "The water's down far enough now that it's not hurting anything," she said. "I'm waiting to see how it works out. It's only been a week." □



Jakob Shockey of Beaver State Wildlife Solutions installs a pond leveler in Little Canyon Creek, on Susan Sherosick's property outside Sutherlin, Oregon.

COURTESY OF BEAVER STATE WILDLIFE SOLUTIONS

into multi-threaded ones, beavers expand shelter for young fish and keep creeks well-hydrated. One 1992 study found that two-thirds of Oregon's coastal coho overwintered in beaver ponds and slackwaters. In its coho recovery plan, the National Marine Fisheries Service recommends "encouraging the formation of beaver dams."

"There is little dispute that beavers improve streams," says Kent Woodruff, a former U.S. Forest Service biologist in Washington who spearheaded a relocation program called the Methow Beaver Project. "The scientific literature is solid on the multiple benefits beavers provide."

That literature underpins the environmental groups' case against Wildlife Services. The Center for Biological Diversity and its allies charged that the agency has a responsibility under Section 7 of

sult with the Fisheries Service, the agency committed to restrictions on beaver killing — agreeing, for instance, to concentrate its trapping on agricultural drainage channels rather than salmon streams. "We're hoping that the outcome of the consultation is that there's no more trapping of beaver in critical occupied salmonid habitat," says Collette Adkins, a senior attorney at the Center for Biological Diversity.

Whatever happens, the case's symbolic significance is hard to miss. Around the West, a burgeoning coalition of "Beaver Believers" is relocating, conserving, or imitating beavers to improve sage grouse habitat, build wetlands for swans, store groundwater, boost cattle forage and repair eroded streams. Although Wildlife Services has been a powerful headwind in the face of that momentum, its



Boulders surround a mud-filled property after a mudslide swept through Montecito, California, in January.

KYLE GRILLO/REUTERS

Disasters and their disparities

Calamity brings us together, but recovery shows our differences



LETTER FROM
CALIFORNIA
RUXANDRA GUIDI

It takes two hours to drive along the coast from Los Angeles to Montecito, California. On a sunny day (of which there are, on average, 284 a year, according to the National Climatic Data Center), the Pacific Ocean glistens to your left as you head north, away from the city's hubbub, past fields and picturesque beach towns until you reach the secluded hills of eastern Santa Barbara County.

If you can afford it, the unincorporated community of Montecito offers many things that Los Angeles doesn't: open space, tree cover, seclusion. Its low crime rate and well-maintained infrastructure go hand-in-hand with its status as one of the country's most expensive zip codes. Almost three-fourths of Montecito's majority-white population lives in homes they own.

Montecito seems like an unlikely site for a violent disaster. But last December's Thomas wildfire destroyed nearly 300,000 acres nearby, forcing 100,000 people to evacuate. Heavy rains followed within weeks, turning the scenic hills into a post-apocalyptic landscape. A wall of mud and debris thundered down, killing at least 21 people and destroying an estimated 75 homes.

The news was shocking. We're not used to seeing the well-to-do as victims of natural catastrophes, as if they and their neighborhoods should be exempt by virtue of their economic power — as if life inside a well-constructed, gated compound guarantees security. But in this era of manmade climate change — as California's rapid development collides with drought, fires, torrential rains — that illusion no longer holds. These disasters affect everyone eventually. Yet it's when we try to recover from them that our class differences become starkest.

According to the U.S. Geological Survey, landslides happen in rich and poor neighborhoods alike, killing up to 50 people a year across the country. That's because of the popularity of hilltop houses in the U.S. In much of the developing world, the urban poor are forced to live in overcrowded and eroded hilltops in cities like my native Caracas, Venezuela. But in the American West, hills offer the best views and most coveted real estate.

They also often host the biggest homes, though the risks of hilltop mansions are widely known. In fact, following the Thomas wildfire last December, the USGS warned of potential landslides in Montecito's alluvial fans, places where sediment fans out from mountaintops towards the valleys.

Yet development on alluvial fans remains widespread in Southern California. For example, in the San Bernardino Valley, a four-hour drive east of Montecito, more than 500,000 new housing development projects were built atop alluvial fans between 2000 and 2006. In 2003, a local mudslide killed 16 people. "Every time there is a major flood event, we have task forces and we do studies," Susan Lien Longville, chairwoman of the San Bernardino Valley Municipal Water District, told *E&E News* in January. But the findings are ignored.

"The Montecito case shows us that we — all of us, regardless of class or race — are at some level of risk," Julie Maldonado, who teaches a class called "Risks, Vulnerability, Resilience, Disasters" at the University of California Santa Barbara's Department of Environmental Studies, told me. "The impacts of climate change do not discriminate in the sense of whether they affect you or not, but to what extent? And what do the impacts

mean, not just to your survival, but to your overall well-being?"

Even before the fires and landslides, Montecito was in the midst of a slow-moving climate dilemma. It's built on land without much access to water. Every semester, Maldonado invites local water resource engineers to explain how the struggle over natural resources affects this otherwise wealthy enclave. Often, guest speakers mention Oprah Winfrey's 40-acre estate, the second biggest water user in Santa Barbara County, with an annual water bill of up to \$125,000.

Still, their money helps the rich survive their troubles. They can usually rebuild or find medical help as needed. Maldonado points out that the recent fires and landslides affected a much wider range and diversity of people: Members of the Santa Ynez Band of Chumash Mission Indians, who were displaced by the fires, had to fight the flames to preserve their cultural sites. And roughly a third of those killed in the landslides came from immigrant families employed in local service jobs. The domestic laborers, teachers and small business owners who cater to the wealthy community of 9,000 cannot escape the fallout from these twin tragedies.

The recovery from this natural disaster will be much harder for the less-visible, low-income residents of Montecito. They have fewer options than their wealthier counterparts do.

"We tend to focus on the extremes, but the vast majority of people live on that margin where they pay their rent this month, and all it takes is one bad incident to not be able to pay it the next," says Maldonado. "That's how disasters often affect people." □

WEB EXTRA

Read more from Ruxandra Guidi — including a Spanish version of this story — and all our commentators at www.hcn.org

The genius and the pest

As a child in Los Angeles, I watched European starlings bathe in gutter puddles, admiring their gleaming feathers and quick bright eyes. Field guides and birdwatchers say starlings perch on the lowest rung of the ornithological ladder, thanks to their tendency to invade both cities and fragile habitats, pushing out native birds and decimating farmers' crops. But I didn't know that then. In ignorance, I marveled.

Wolfgang Amadeus Mozart had a starling, purchased for a few coins in a Viennese pet shop; he kept it as a companion and — possibly — a muse. The unlikely relationship between musical genius and avian pariah has been the subject of essays, public radio features, and now *Mozart's Starling*, a work of literary nonfiction by Lyanda Lynn Haupt. A Seattle-based naturalist and the author of *Crow Planet* and *Urban Bestiary*, Haupt tells three stories in her newest book — a trio of deftly interwoven tales that point toward a new way of seeing species we long ago learned to revile.

As in her previous works of nonfiction, *Crow Planet* and *The Urban Bestiary*, Haupt asks us — gently and with contagious delight — to reconsider the animals we disparage. Listen to her, and even the most pedestrian walkways sing out with possibility. Starlings — like house sparrows and raccoons and nutria — are here to stay despite our best efforts to eradicate them. These familiar birds are a gateway creature, if you will, allowing almost anyone anywhere to become acquainted with and attuned to a species other than ours.

Haupt begins with Mozart, describing how the composer discovered the bird, unaccountably whistling a motif from a piano concerto of his that had not yet been publicly performed. Haupt delves into this mystery and others, armed with history and science. She journeys to Vienna and the Mozarthaus, where the composer and his family lived between 1784 and 1787, to see for herself the rooms made sweeter by the presence of a species with an extraordinary capacity for song.

European starlings, Haupt explains, are natural mimics. "It is a surprise to most contemporary Americans that starlings can talk, that they are gifted mimics of environmental sounds, other birds, music, and the human voice," she writes. And they've managed to spread across North America and around the globe. The second story in the book is her own — the entertaining tale of how Haupt, a former wildlife rehabilitator, and her husband, Tom Furtwangler, snatched a baby starling from a nest in a Seattle park before city exterminators arrived. They nurtured

the hatchling and raised it to adulthood, a process Furtwangler captured in whimsical black-and-white photos. With a rehabber's necessary wit, she recounts stories of the bird nestling in her cleavage, pooping in her hair, vanishing and being found at last, having flown into the refrigerator.

The third story in the book belongs to this starling. Carmen, as Haupt calls her, represents a smart and resourceful species. While the author acknowledges that starlings can become undeniable pests, her charming stories of this particular bird remind us that perhaps — since the species isn't going away any time soon — we might as well learn to live in harmony with it. "I do detest the presence of the species in North America," she writes. "But this bird on my shoulder? Mischievous, clever, disorderly, pestering, sparkling, sleepy? Yes, I confess, I couldn't be more fond of her."

Haupt's book is the latest addition to an unusual subgenre. Over the past quarter century, authors have penned shelves full of books about sharing their home with a wild bird: Bernd Heinrich's *One Man's Owl*, Martin Windrow's *The Owl Who Liked Sitting on Caesar*, Helen MacDonald's *H is for Hawk*, Robbyn Smith van

Frankenhuyzen's *Adopted by an Owl*, and the late Oregon author Chris Chester's magnificent *Providence of a Sparrow*. Like Chester, Haupt shows how, by studying a creature long regarded as a nuisance, we may cultivate a gracious appreciation for the ordinary and the inevitable.

Her portrayal of Carmen returns to me something that's been missing for decades: a receptive respect for the wild creatures that were available in my cement and asphalt childhood. Who are any of us to say, really, that a California condor glimpsed on a backpacking trip or a resplendent quetzal spotted on a Costa Rican tour has more innate worth than a bird possessed of over 30 song types, one resourceful enough to exist on dumpster crumbs and bathe in urban gutters? "(Carmen) became the teacher, the guide, and I became an unwitting student — or more accurately, a pilgrim, a wondering journeyer who had no idea what was to come," Haupt writes. "It led me to the understanding that there is more possibility in our relationships with animals — with all the creatures of the earth, not just the traditionally beautiful or endangered, or loved — than I had ever imagined."

BY MELISSA HART



Mozart's Starling
Lyanda Lynn Haupt
277 pages,
hardcover: \$27.
Little, Brown, 2017.



Carmen, the pet starling of author Lyanda Lynn Haupt, takes a bath.
TOM FURTWANGLER/
COURTESY OF THE AUTHOR



Stranger than Paradise

Cliven Bundy takes a victory lap

ESSAY BY
HAL HERRING

PHOTOGRAPHS
BY TONY BYNUM

PARADISE, Montana – There are seven speakers, songs, and prayers, another song, and then more prayers. Roxanne Ryan of the nearby town of Plains, Montana, a tall and unadorned woman, long gray hair framing a face of quiet stoicism, introduces each speaker. The sadness in her voice, her heavy air of tribulation, are real. Roxanne's son, Jake, one of the occupiers of the Malheur National Wildlife Refuge in 2016, is in Oregon, facing sentencing for his role in the refuge takeover. Her younger son, Jubal, is a featured singer tonight, belting out a rousing rendition of the seldom-heard third verse of *The Star-Spangled Banner* ("No refuge could save the hireling and slave / From the terror of flight or the gloom of the grave"), and the Ryan family will, as the hours wear on and energy in the big room begins to flag, sing a shortened but poignant version of Marty Robbins' *Ballad of the Alamo*.

From Ryan Bundy, who has come with his father, Cliven, to this once-proud gym-

nasium on this long winter's night, we get pronouncements on history, individual sovereignty, man's dominion over nature, constitutional law and the Bible. Ryan's face is jailhouse-pale, his mouth and right eye distorted from a childhood injury. He is not a large or imposing man, nor a compelling speaker, but the audience seems transfixed: His countenance, in the strong lights, beneath his oversized white summer Stetson, is that of a broken angel. "I believe that God intended for land to be in the hands of individuals, and not governments," he says, and the crowd cheers with gusto. "Is Montana a state? I'm not sure. Does it own 100 percent of its land and resources?" The crowd responds with a vigorous "No!" Ryan continues, "We should change our name, then, to the Imperial Provinces of America!"

At first glance, Paradise, Montana, just a few miles to the west of the Salish-Kootenai Indian Reservation, seems an odd place for such a momentous event.

The town has seen better days: The Pair-A-Dice Bar is gone, there is no grocery store, and in the winter's gray chill, the 180 or so inhabitants are nowhere to be seen. This venerable old schoolhouse, perched on a hill above the ramshackle streets, closed in 2013, though a group of Sanders County residents was able to preserve the historic building for community events such as this one, the "Freedom and Property Rally."

The railroad still runs through Paradise, but, as in a hundred desolate songs and poems, the train has not stopped here in decades. For the 25 or so years I have known the town, it has been a place where people from far away come to hide out, to get off the grid (or try to), to put wreckage or bad choices or grief in the rearview. It collects the lame and the halt, the aggrieved, like the grooves of a wash plant collect the densest gravels. People tend to seek out Paradise, and Sanders County, for the isolation and the sense

“We should change our name, then, to the Imperial Provinces of America!”

—Ryan Bundy, speaking at the Freedom and Property Rally in Paradise, Montana

that this is a last holdout of the Old West, carved out of the former plats of timber companies up any of the side drainages. The stories have been the same for decades now: of unexploited gold and silver deposits, of a timber industry shut down by “eco-Nazis” in league with a tyrannical government that covets minerals, range, timber and even private-land holdings, for some nefarious globalist plan.

Perhaps, then, the Freedom and Property Rally belongs here.

Montana state Sen. Jennifer Fielder — a Republican who also leads the American Lands Council, which advocates the transfer of federal lands to the states — shares headliner status here with the grand old man himself, Cliven Bundy, who has driven 15 hours from his home in Bunkerville, Nevada, to meet with his followers and celebrate his freedom after soundly beating federal prosecutors who sought to imprison him and two sons for their actions during the Bunkerville standoff and the Malheur takeover. Tonight belongs to the Bundys, to their triumph, and to all the seething resentments that swirl around them like a band of cavorting imps.

But we must wait for the prize.

We listen to the rambling story of a white-bearded local man named Billy Hill, whose long history of fighting with the U.S. Forest Service and other federal agencies is also available in printed form, for free, on the table next to the petitions and the “Jury Nullification” T-shirts. Among Hill’s grievances is a dispute over open range, or grazing cattle without fees. Such a stance ought to discredit a speaker in a room partly filled with cattlemen who must pay land taxes and grazing fees — but in one of the mysteries of Paradise, tonight it does not.

We hear from Shawna Cox, the middle-aged blond-haired matriarch who was in the truck driven by LaVoy Finicum when he was shot and killed by law enforcement officers during the Malheur standoff. Cox is outraged that an armed occupation of a wildlife refuge by men kitted out for war inspired an armed response from law enforcement. Much of the crowd seems to share her outrage; in fact, outrage is the primary currency here, Finicum the fallen martyr around which it coalesces.

The security is tight — large, mostly fit young men with ear pieces, bundled in jackets despite the warmth of the gym, most of them righteously and luxuriously bearded as befits a latter-day biblical Son of Thunder. Pageantry is important. In addition to the ubiquitous, special-edition copies of the Constitution, worn in the front pocket like membership badges, there are posters and photos and flags. One poster shows Duane Ehmer riding his

horse, Hellboy, in the snow at Malheur, the big American flag unfurling behind him. A banner featuring the late Finicum’s bar-and-V brand is stapled above an electric blue flag that just says “Liberty.”

A little boy in a tricorn hat toys with a real hatchet. His adult, tricornered counterpart, verbose, pony-tailed and wearing round spectacles, sports a once-colorful homemade Colonial soldier suit and purple leggings, both a bit dingy now. A shaven-headed man who looks to be in his 60s wears a T-shirt that proclaims his captaincy in the “U.S. Militia, Northern Command, 79th Battalion, Shoshone, Idaho.” The predominant age of the crowd is over 50, and most well beyond that, but there is a smattering of families with small children, dressed plainly, members of a number of religious sects that seem to be everywhere now around rural Montana. There is a contingent of 15 or so members of the Missoula-based group Backcountry Hunters and Anglers, most of them young, here to provide a dissenting view of the Bundys’ expressed desire to rid Americans of their public lands. (I host a podcast for the group, but at this rally I represented myself only.)

When Cliven Bundy finally steps to the microphone, the crowd cheers, but not for long. The elder Bundy has served, he reminds us, 700 days in jail, but he is not here to celebrate his freedom, nor to revel in the adoration of the people of Paradise. He is here to admonish, even to scold. He tells the audience they are Montanans, citizens of a sovereign state, and that they have failed to live up to that fact. He refers to himself in the third person.

“Who is Cliven mad at?” he asks.

Yells from the crowd: “Obama!” “Hillary Clinton!” “The federal government, ‘cause they violated your rights!”

“No,” he says. “Cliven doesn’t recognize their authority at all. I don’t have a contract with the federal government. I don’t graze their lands. This talk about transferring lands back to the states, I say, ‘Good heavens! We already have a Constitution!’ ”

It is late. We’ve been here for hours. The panel of speakers looks weary behind Cliven. Ryan, as if lulled by his father’s voice, closes his eyes and seems to doze, his big Stetson cocked forward a bit.

“We already talked about how there is no place in the Constitution where it says a government can own land,” Cliven continues. “A neighbor told me, ‘Never call it your lease, or allotment. Call it your ranch. You are the one who has the rights.’ All that red on the map, it all has pre-emptive rights, it has all been grazed by sheep or cattle, it has all been disposed of by the federal government, all the rights have been adjudicated.”

His talk goes on, to include the



Constitutional Sheriffs’ and county supremacy movements, which claim county government as the supreme law over the federal government. Cliven is articulate, a convincing speaker, but the legalities and the natural rights to which he refers — to which he has committed his life, liberty and sons — seem nebulous at best. He winds up his talk with a return to his religious faith, the deep love of God and family that he says brought him through his months in jail. He seems — he is — sincere. “We need to love each other. My grandmother used to say, ‘We could all do a little better.’ Thank you.”

Even now, the rally is not over. There is a benediction, more talk, more fellowship. And why not? Where is there to go, with the ice-clotted Clark Fork River right outside, the dark settlement quiet under the looming darker mountains? In all this tyrannized, fallen nation, what better place than here, in the comfortable company of the true believers? □

Cliven Bundy takes the stage, facing page, at the old schoolhouse in Paradise, Montana, for the Freedom and Property Rally. Top, Ryan Bundy waves a Constitution as he speaks. Above, Montana state Sen. Jennifer Fielder approaches Cliven Bundy for his autograph on a newspaper featuring an article about the Bundy mistrial.

Hal Herring covers environment, guns, conservation and public-lands issues.



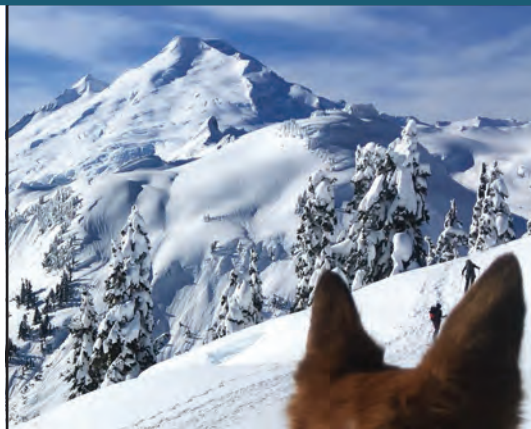
HEARD AROUND THE WEST | BY BETSY MARSTON

THE WEST

After a “golden era” under President Barack Obama, the country’s gun sales have plummeted, reports *The Guardian*. The culprit is the gun-friendly presidency of Donald Trump, and the most recent casualty is Remington, which just applied for bankruptcy protection as it offloads \$700 million in debt and restructures the company. Remington is one of the most famous names in weaponry, supplying arms to soldiers in the Civil War, both world wars and to generations of gun enthusiasts. And Remington is not alone: Two months ago, American Outdoor Brands, the owner of Smith & Wesson, said that its profits had fallen 90 percent over last year, and Storm Ruger, the country’s largest firearm maker, announced that its quarterly revenues were down 35 percent. The “Trump slump” reveals just how much gun sales have been politicized, said Robert Spitzer, a professor at the State University of New York at Cortland. During the Obama years, people bought guns to make a statement; these days, he said, gun sales reflect a long-term trend of declining gun ownership. Fewer people hunt, he pointed out, women and minorities aren’t that thrilled about owning dangerous weapons, and neither are young people. So who buys guns? The answer is people who already own arsenals: “Just 3 percent of the population owns an average of 17 guns each,” *The Guardian* reported, “with an estimated 7.7 million super-owners in possession of between eight and 140 guns apiece.” Gun sales might pick up again in the wake of the latest shooting. And, as Spitzer notes, if Democrats do well in the mid-term election, “the NRA (National Rifle Association) will no doubt use it as an opportunity to issue dire warnings about gun rights.”

THE WEST

In happy wildlife news, a pair of bald eagles near Big Bear Lake in Southern California’s San Bernardino National Forest hatched two baby chicks in February after a 35-day incubation period, during which the big birds took turns fluffing up and perching on the eggs to keep them warm. “The whole world was watching,” reports ABC News, thanks to an online streaming



WASHINGTON Mountaineers. SARAH GILMAN

webcam, and thousands of people commented about the new family on the Institute for Wildlife Studies’ website. The fluffy little white chicks will fatten up in the nest for the next two to three months, reports The Associated Press.

A less happy event occurred in Utah’s Wasatch County when the state’s Division of Wildlife Resources tried to capture a cow elk with a net and haul it off by helicopter. Suddenly, reports the *Salt Lake Tribune*, the elk jumped up and hit the helicopter’s tail rotor, almost severing it. “Not something you see everyday, when an elk brings down a chopper,” said a crew member. No people were hurt, though the elk did not survive.

Meanwhile, chances of seeing an all-white raccoon are said to be one in 750,000. But in western Colorado, south of Durango, a family found a rare, 35-pound albino animal. Unfortunately, reports the *Durango Herald*, it was already dead.

WYOMING

Faced with an \$850 million shortfall in the state budget and only four weeks to come up a solution, the Wyoming House got one bill moving ahead by a vote of 60-16. It won’t help the budget, though; rather, it would require the motto “In God We Trust” to be displayed in all public-

school classrooms across the state and in the lobbies of state government buildings. The bill has no funding scheme; instead, the governor will “take donations,” sponsor Cheri Steinmetz, R-Lingle, told the *Casper Star-Tribune*. The measure awaits the full Legislature’s approval.

THE WEST

Although Bob Marley, the famous reggae singer, died in 1981, his estate made \$20 million last year, putting him at No. 5 on Forbes’ list of top-earning deceased celebrities. (Dead celebrities ranking ahead of him include Michael Jackson and Elvis Presley, while Marilyn Monroe and John Lennon come in right behind.) Now, a Seattle equity firm, Privateer Holdings, has big plans to make Marley the “Marlboro Man of marijuana,” reports the *Financial Times*. Besides marketing “heirloom Jamaican cannabis strains,” Privateer’s subsidiary, Marley Natural, plans to sell marijuana-infused skim creams and lip balms.

In other pot news, for the first time in Aspen, Colorado, legal marijuana sales of \$11.3 million last year topped liquor store sales of \$10.5 million, reports the *Aspen Times*. The town has six pot shops and five liquor stores.

And in a pairing as natural as milk and cookies, as *The Cannabist* put it, “The Girl Scouts of Colorado have decided it’s now cool to peddle their baked goods outside marijuana dispensaries: Munchies, meet Thin Mints, Tagalongs and Samoas.” With safety as their top concern, troop leaders this year are free to choose just about any location likely to help budding entrepreneurs sell lots of boxes of cookies. Besides pot shops, that now includes tattoo parlors, bars, liquor stores and casinos.

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.



High
Country
News

For people who care about the West.

High Country News covers the important issues and stories that are unique to the American West with a magazine, a weekly column service, books and a website, hcn.org. For editorial comments or questions, write High Country News, P.O. Box 1090, Paonia, CO 81428 or editor@hcn.org, or call 970-527-4898.

“Guns and gentrification are as Western as open space and agriculture. All are elements of our culture and points of our conversations as we evolve and redefine ourselves as who we are.”

Maddy Butcher, in her essay, “A Western town says ‘no’ to guns in schools,” from *Writers on the Range*, hcn.org/wotr