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High Country News

For people who care about the West

Change Comes to Short Creek

The modern West encroaches on a fundamentalist Mormon empire

By Sarah Scoles

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A girl — who sticks out her tongue when she spots a photographer — rides with others wearing traditional FLDS prairie dresses in Hildale, Utah. GEORGE FREY

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On the cover

A girl in modern clothes walks past three others in traditional long dresses after school at El Capitan High School in Colorado City, Arizona.
GEORGE FREY

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Editor's note

Exploitation and the West

High Country News is sometimes called an "environmental" magazine, even by folks within our walls. As the editor, though, I humbly disagree. *HCN* is a magazine of the American West, helping the region tell its own story, of its people and places, through several important lenses. One of those lenses is the West's fragile, beautiful environment. Another is closely related: its natural resources, from coal, oil and gas, to timber, ranching and recreation. But a third is through the region's communities — communities shaped by history and heritage, for better or worse.

In this issue, we explore one such community — the Fundamentalist Church of Jesus Christ of Latter-day Saints. The FLDS, dwindling in membership and with several of its leaders in jail or on the lam, constitutes a small corner of the modern West, but it represents an important aspect of the past. The sect is famous for its polygamy, an aspect of Utah life that is so important that the *Salt Lake Tribune* has a reporter essentially dedicated to covering it. Television shows have been made about it; Jon Krakauer even wrote a book. But while it is easy to caricature the faith's adherents, it's more instructive to look at how such legacy systems affect the people within them.

That's what writer Sarah Scoles has done in her cover story. Through her on-the-ground reporting, we learn how the basic tenets of the FLDS faith ripple through the community, even as the modern world presses in. Members who find themselves on the wrong side of the powerful patriarchy can lose everything — even their children. They find themselves on the outside of their own lives, betrayed by their beliefs, and by the beliefs of their loved ones. This can be devastating for families, and it makes for heartbreaking reading. Scoles follows one father in his struggle to recover his children.

There is more to the story, though, than the exposure of fundamentalist church practices. Scoles reveals a dark kind of exploitation, particularly by church leaders who want multiple wives, including teenagers. But such exploitation is not unique to polygamy. Rather, it's just another manifestation of a kind of greed, the rapaciousness that is at the root of many a Western problem.

The truth is that greed and exploitation underpin a lot of what we examine at *High Country News*. To me, that's important, because the exploitation of human beings is wrong, whether they are followers of a controversial faith, undocumented workers, low-wage earners, the poor, gay, queer or transgendered, or any other group. The same person who would eagerly exploit a human being will just as easily exploit a landscape. Exploring these underpinning systems, those that have degraded the people and places of the West, is one of the magazine's fundamental missions. Because once a thing is understood, it's easier to beat.

—Brian Calvert, editor-in-chief

Scott Drexler, one of the six defendants currently on trial in Nevada, carries a rifle near the BLM base camp during the standoff over Bundy grazing rights in April 2014. Cliven Bundy and sons Ryan and Ammon are scheduled for trial this summer. JIM URQUHART/REUTERS

Bundy trial update

In April, the first of three trials over the 2014 armed standoff between supporters of rancher Cliven Bundy and the federal government ended. As of press time though, the jury had not yet reached a verdict. The standoff and ongoing court battles reflect a longstanding war in Western states over public lands. Throughout the deliberations for the first round of defendants, prosecutors and defense described the 2014 events in starkly different terms: The government portrayed the showdown as terrifying for federal officers who were merely following court orders to round up cattle that had been illegally grazing federal lands. The defense team depicted their clients as standing up for what they believed in and attending a protest. Charges included conspiracy and threatening a federal officer. Bundy and his sons are expected to go to trial in late May or early June. **TAY WILES**
MORE: hcne.ws/Bundy-update

28

Number of feet parts of California's San Joaquin Valley have dropped due to overpumping of groundwater

100 million

Number of California trees that have died due to drought, bark beetles and disease in the last six years

Gov. Jerry Brown declared California's latest drought over for most of the state in April, but the consequences of the dry period and long-term water issues still trouble the Golden State. Sucking up groundwater faster than nature can replace it has been a problem for decades, and it will likely be decades more before it stops. Pumping intensified during the drought, exacerbating problems like dried-up domestic wells — leaving households without running water — and land subsidence, which can damage roads and other infrastructure. Ecosystems suffered, too: Vast tracts of trees died, and salmon and migratory bird populations declined.

EMILY BENSON MORE: hcne.ws/new-normals

Congress' attack on science

In March, the House passed two bills aimed at defanging the Environmental Protection Agency. House Bill 1430 limits the EPA's access to scientific data. House Bill 1431 replaces scientists and public health experts on its advisory panel with industry members and politicians. As of press time, the Senate had yet to schedule a vote on either bill.

1. WHAT DATA WILL THE EPA BE ALLOWED TO USE? Only data that it makes publicly available. To keep protecting patient privacy and private business concerns, the EPA will have to stop using much of its current data.

2. WHAT ABOUT DATA YOU CAN'T REPRODUCE? It can't be used. This rules out data sets on environmental disasters, such as oil spills, and public health disasters, such as radiation exposure.

3. WHAT IS THE "BEST AVAILABLE SCIENCE?" The EPA has to use "the best available science" to support its actions, but that's not a defined legal or scientific concept. This could stall any new regulations.

4. HOW MUCH WILL IT COST? Although EPA staff estimated the bill's cost at $250 million per year, House Bill 1430 caps implementation spending at $1 million per year.

5. WHO'S GIVING THE EPA ADVICE? House Bill 1431 changes the composition of the EPA's Science Advisory Board (SAB), which advises the EPA administrator. The bill excludes scientists with ongoing work relevant to the question under review, likely resulting in the inclusion of more industry members.

6. HOW WILL THE PUBLIC PARTICIPATE? Under House Bill 1431, the SAB will lump public comments, counting all copies of form letters and electronic petitions as one single comment.

MAYA L. KAPOOR MORE: hcne.ws/savaging-science

"I suggested that (President Donald Trump) temper his expectations. Those are my exact words."

—Coal executive Robert Murray (quoted in *The Guardian*), who advised Trump that low-priced natural gas and mechanization makes it unlikely that the tens of thousands of coal workers laid off in recent years could return to work. **ELIZABETH SHOGREN** MORE: hcne.ws/interior-acts

Water samples taken in 1972 after a pipeline burst, releasing crude oil into Utah's San Juan River. DAVID HISER, U.S. NATIONAL ARCHIVES: 412-DA-3147

White dust creates a haze at the gypsum plant at Plaster City near El Centro, California, in May 1972. CHARLES O'REAR, U.S. NATIONAL ARCHIVES: 412-DA-6363

Photographs

The West before the EPA

Environmental disasters in the industrial East and Midwest sparked the creation of the EPA nearly five decades ago, but polluted places dotted the West, too. Heavy metals spewed from smelters, waste was dumped into ponds, and the sky was clouded by lethal smoke and haze. Although problems persist today, they're generally much less severe now — but the region is at risk if regulations are revoked or a slashed budget leaves them unenforced.

EMILY BENSON MORE: hcne.ws/dirty-west

Trending

A mouthful of lead?

Interior Secretary Ryan Zinke's first act on the job was to repeal a ban on the use of lead ammunition in national parks, wildlife refuges and any other public land administered by the U.S. Fish and Wildlife Service. The order had been put in place during the last days of the Obama administration. Lead bullets fragment, leaving microscopic traces in hunted animals. In an opinion column, Bette Korber writes, "Residual lead from bullets is a serious issue for endangered condors, other birds and animals, and very likely for people" — from unintended exposure to toxic lead in their meat.
BETTE KORBER, WRITERS ON THE RANGE

You say

WILLIAM DITTL: "Studies ... indicate that the lead fragments travel into the areas where the heart and lungs are or where the meat is damaged and unused. People who eat wild game have no higher levels of detectable lead."

RICHARD BEAUCHAMP: "I do mind complying with the regulations when the new ammo chews up my barrels 20 times faster than lead ammo and costs 30 percent more."

KEARSTIN DISCHINGER: "A slight increase in cost and wear and tear shouldn't be an insurmountable trade-off for the general welfare of wildlife and humans, especially if you only shoot what you eat."

SCOTT PAGE: "Anybody ask the California condors what they think of this decision?"

MORE: hcne.ws/lead-bullets and Facebook.com/highcountrynews

Send letters to editor@hcn.org or
Editor, HCN, P.O. Box 1090, Paonia, CO 81428.

WE'LL KEEP COVERING THE WEST'S POLITICS

Below are readers' responses to the editor's note by Editor-in-Chief Brian Calvert in our April 3 issue, in which he addressed recent criticism of our coverage of "divisive" political issues.

I appreciated your editor's note about the mix of politics and *High Country News*. In today's polarized political environment, we tend to be more sensitive to statements that support or conflict with our political views. It's us, not you, who have a problem. We seek out what validates and lash out at what challenges those views. As long as *HCN* continues to provide the wide range of topics pertaining to our fast- and ever-changing West, you are providing a worthwhile journalistic endeavor. Let us be the fools who wish to be judgmental about any motive.

Marshall Brown
Draper, Utah

Your editor's note is Reality 101 for the Westerners it serves. It is because politics often controls Western newspapers that Tom Bell founded *High Country News*. When he advocated for the lands and people of the West, he discovered the message was being controlled by those exploiting the state that he loved.

As most advocates, including myself, have discovered, land use is always dictated by politics. Years ago, I was testifying at a hearing on a Forest Service matter. With fire in my belly, I denounced their plans. Afterwards, a ranger chided me: "We do as we are told by our bosses, who are told what to do by the party in power in Washington. If you want changes, change the party in power."

If you want to know the agenda of our political parties, read their platforms. There is a vast difference between the two major parties. If you love the lands and people of the West, you can't ignore politics.

Barbara Parsons
Rawlins, Wyoming

I so strongly agree with editor Brian Calvert's defense of keeping politics in the publication that I read no further until I sent this message. I support 100 percent everything he said. All of us have to speak out against what President Donald Trump is doing to our country. Thank you for not backing down.

Ray Witter
Camas, Washington

MARTIN SUTOVEC, SLOVAKIA, CAGLECARTOONS.COM

Many thanks for your forthright response regarding the environmental politics of the West, which are in fact more complicated than many of us know. From my time a long time ago as a congressional intern for Mo Udall of southern Arizona, I relearned a lesson as old as our country as a whole: Uniting in common cause to preserve our irreplaceable natural heritage — while still being able to make a sustainable living off it — knows no political party and has no common allegiance except to the principle of living in ongoing peace with our surroundings. Both Republican and Democratic leaders have made huge sacrifices for this cause, and both Republican and Democratic leaders have devoted well-paid careers to destroying it.

Lloyd Burton
Denver, Colorado

This nation and all of its natural resources are in grave danger. While the current administration is so obviously a complete failure, the real danger doesn't reside in the White House. More than likely, this administration will be gone in four years or less. The real long-term danger to our country is the philosophical divide between the conservative right and the progressive left. Some argue both sides have some basic goals or common interests they could find agreement on, but my view is the divide has become too wide, too entrenched and too bitter, and that this divided country will soon fall. It is too sad to even contemplate, so most of us don't. I grieve for my children and grandchildren. Please continue to bring factual news and commentary to those of us who believe it is better to be informed than ignorant.

Shelley Stallings
Ketchikan, Alaska

VOTE WITH YOUR DOLLARS — ON PUBLIC LANDS

Many people have applauded the Outdoor Retailer Show companies moving their $10 million convention business out of Utah and said that they plan to take their personal outdoor recreation dollars elsewhere this year ("Outdoor rec industry defends public lands," *HCN*, 2/20/17). However, our economic role as public-lands lovers is opposite that of the recreation retailers. We vote with our pocketbooks on and near the public lands, not in Salt Lake City.

The *HCN* article holds the political key to defending Utah public lands in one sentence in its third-from-last paragraph: "Rep. Chaffetz recently withdrew a bill to transfer 3.3 million acres of Western public land to state control, *after his proposal received harsh criticism from his constituents*." (Emphasis added.)

When we make our Bucket List tour of Utah's "rock parks" and monuments this year, we intend to tell every store clerk, cafe owner and campground host with whom we do business why we have come, and what we've enjoyed about their area. They'll know what to tell Chaffetz, et al.

Linda Blum and Harry Reeves
Meadow Valley, California

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.

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Shifting scales

How Neil Gorsuch and the Chevron doctrine could leave a lasting mark on the West's lands and the environment

BY ELIZABETH SHOGREN

Just last year, when he was a federal circuit court judge in Denver, the Supreme Court's new justice, Neil Gorsuch, did something judges rarely do. Gorsuch wrote the main opinion, explaining why he and two other judges on the 10th Circuit Court of Appeals ruled against the Obama administration in *Gutierrez-Brizuela v. Lynch*, an immigration case. But then he added an even longer analysis — just from himself — sharply criticizing a judicial precedent that federal agencies and environmental groups have relied on for decades to protect people, public lands and rare species. Known as the *Chevron* doctrine, it stems from a 1984 Supreme Court ruling.

Under *Chevron*, courts have given agencies wide leeway to interpret ambiguous statutes. Gorsuch wrote that the doctrine has allowed "executive bureaucracies to swallow huge amounts of core judicial and legislative power and concentrate federal power in a way that seems more than a little difficult to square with the Constitution."

Chevron has been pivotal in upholding key environmental regulations, from protecting habitat for endangered species to regulating pollution. Gorsuch's aversion to it worries some Western legal experts, who fear that the nation's highest court will no longer permit federal agencies to create safeguards for the West's lands, waters, air and wildlife that are not explicitly required by Congress. "The statutory mandate of land-management agencies like the Forest Service, Bureau of Land Management and Park Service is old and creaky," said Fred Cheever, a professor of natural resources and environmental law at the University of Denver Law School. "The combination of lack of deference and antiquated laws creates a potential conflict that may dramatically impact the West."

And because of Gorsuch's Western roots, Cheever says, other justices may follow his lead on regional issues as they followed former Western members of the court, such as Justice Sandra Day O'Connor. While the Denver-born Gorsuch, who served on the 10th Circuit since 2006, may have more insight into conflicts over public lands than most Eastern judges, other experts scoff at Gorsuch's Western credentials. Gorsuch has spent much of his life in Washington, D.C., moving there as a teenager in the early 1980s, when his mother, Anne Gorsuch Burford, headed President Ronald Reagan's Environmental Protection Agency. Neil Gorsuch attended high school, college and law school on the East Coast and spent his early legal career in the nation's capital.

Chief Justice John Roberts Jr. and fellow justices watch as Neil Gorsuch signs the Constitutional Oath on April 10.
FRANZ JANTZEN/SUPREME COURT OF THE U.S. VIA AP

Gorsuch joins the Supreme Court at a time when there is growing criticism of *Chevron*. Though the majority of the court relied on *Chevron* and deferred to the Federal Communications Commission in the 2013 case *City of Arlington v. FCC,* Chief Justice John Roberts Jr. wrote a strongly worded dissent, warning of "the danger posed by the growing power of the administrative state." In a 2015 case upholding the Affordable Care Act, Roberts expressly stated that the court wasn't deferring to the agency under *Chevron*, as a lower court had, but instead was resolving the ambiguity in the statute itself. Meanwhile, congressional Republicans are trying to get rid of it altogether. The House passed a law in January that would instruct courts not to defer to agencies' interpretations of ambiguous laws. The Senate has yet to act.

Environmental groups likely would cite *Chevron* in defending the Obama administration's environmental rules, including the EPA's Clean Water and Clean Power Plants rules and the BLM's methane and hydraulic fracturing rules. But those cases may not make it to the Supreme Court; President Donald Trump already is trying to roll back many of these regulations.

Chevron deference benefits whatever administration is in power — and consequently Gorsuch's resistance to it could backfire on Republicans. In the original 1984 case, *Chevron U.S.A. Inc. v. Natural Resources Defense Council Inc.,* the Supreme Court upheld an EPA air pollution rule — crafted while Gorsuch's mother headed the agency — that benefitted industry, allowing more air pollution. That's just the kind of regulation the Trump administration could be expected to write. But if the court, under Gorsuch's influence, becomes increasingly reluctant to defer to agencies, that could make it harder for Trump's team to write rules that benefit industry, or even to eliminate existing environmental and safety regulations. When those decisions are challenged in court, the Trump administration may be hampered by having to use other legal arguments instead of simply relying on *Chevron* deference. "Those who dislike Trump's policies may find a friend in Gorsuch's views on *Chevron*," said Donald J. Kochan, law professor at Chapman University in Orange, California.

Gorsuch is only 49 and could be on the court for decades. How might his presence there determine what happens when future administrations try to expand protections for the West's public lands and environment? That answer depends on unpredictable factors, including whether Trump has by then appointed additional justices who share Gorsuch's antipathy to *Chevron*. What is clear is that Gorsuch will be pushing the court to reassert its role in interpreting statues — and will block agencies that try to regulate based on their own interpretations. □

Correspondent Elizabeth Shogren writes *HCN*'s DC Dispatches from Washington. @ShogrenE

Paying for national park repairs

Congress discusses the Park Service's maintenance backlog

BY REBECCA WORBY

California's Big Oak Flat Road undergoes erosion repairs. It is the only paved route connecting Highway 120 to Yosemite National Park. Paved roads are the highest deferred maintenance cost for the National Park Service as of 2015.
NPS

On April 3, President Donald Trump donated his first-quarter salary — $78,333.32 — to the National Park Service. But Trump would have to repeat his deed 153,192 times in order to cover the Park Service's entire $12 billion backlog of postponed maintenance projects. It's clearly going to take a much more substantial effort to bring that number down, especially as Trump has proposed a 12 percent cut to the Interior Department's budget. The recently introduced National Park Service Legacy Act would establish a fund to reduce the backlog over the next 30 years.

During an oversight hearing by the House Committee on Natural Resources' Federal Lands Subcommittee on March 16, attendees called the $12 billion figure, which includes maintenance and repair of buildings, roads and trails as well as water and wastewater systems, "staggering," "embarrassing," and "hard to get your mind around." That overwhelming number drives home the extent of the problem, but it can also make finding a reasonable solution seem nearly impossible.

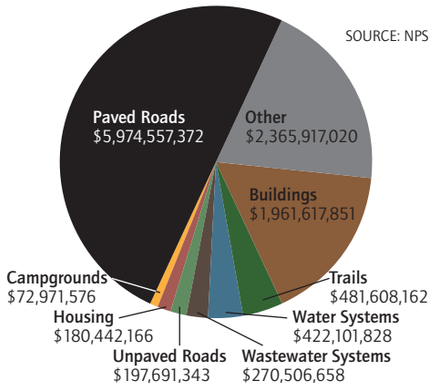
At the hearing, witnesses offered a range of suggestions, including many strategies that the Park Service already employs, such as philanthropy, volunteer work, leasing to private entities and public/private partnerships. But these solutions only go so far. For one thing, outside gifts don't tend to support maintenance. "There is no philanthropic appeal to projects such as wastewater treatment plants," wrote Deny Galvin, National Park Conservation Association board member, in his testimony for the hearing.

Introduced by Sens. Mark R. Warner, D-Va., and Rob Portman, R-Ohio, the National Park Service Legacy Act would provide incrementally increasing funds allocated from mineral revenue over the next 10 years, gearing up to $500 million annually from 2027 to 2047. The bill seeks to address the projects the Park Service deems most critical, with 80 percent of the funds going to historic sites and other repairs important to visitor access and safety, and 20 percent going to transportation projects.

"When you boil the backlog down to the most critical projects, it becomes a much more surmountable number and very realistic to address," says John Garder, budget and appropriations director for the National Parks Conservation Association. Critical projects, according to the Park Service, amount to $3.5 billion, or a little less than a third of the backlog; the most pressing, such as a potable water distribution system at Grand Canyon National Park, account for about $1.3 billion. "It would be nice if every project were taken care of," Garder notes, "but nobody is asking for that." □

The NPS reported $11.927 billion in deferred maintenance costs for 2015

SOURCE: NPS



Snapshot

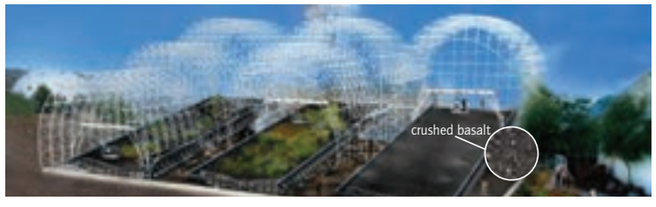
A model for a water-scarce West

The largest indoor weathering experiment at Biosphere 2 in Arizona

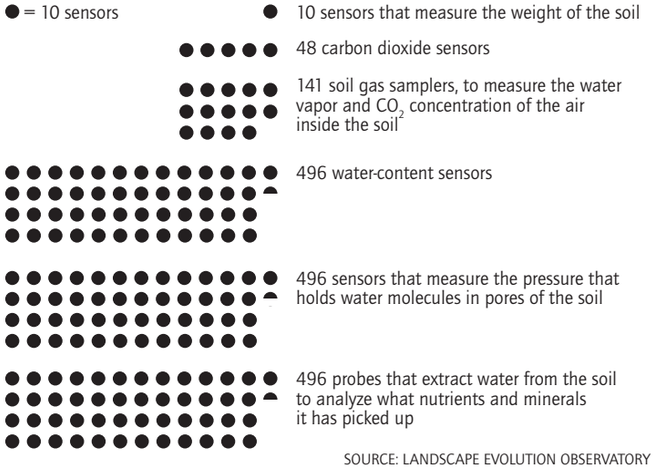
The white domes and glass pyramids of Biosphere 2 rise high above the desert outside Tucson, Arizona. In the early 1990s, it housed eight people for two years as part of a notoriously failed experiment in self-sufficiency. Now it's a research station maintained by the University of Arizona. In its second year, the largest indoor soil weathering experiment involves three million pounds of soil piled in huge mounds and sprayed regularly with water. "It's like *Groundhog Day*," says Peter Troch, science director. "You basically create the same conditions all over again, every three days." This will go on for 10 years across three manmade hills, each peppered with more than 1,800 sensors to measure exactly where the water goes, down to the molecule.

It's at this molecular level that minerals and water jostle and lock arms in the process of weathering, releasing nutrients like potassium and calcium from the soil. Plants then suck up those nutrients through their roots. From there, the minerals pass through the food web to other life forms, creating a livable world for humans and other organisms. The exact way that water moves through a landscape is also important: If we understand weathering patterns, which determine water quality and pollutant uptake, we'll be better able to plan irrigation and manage drinking water in the face of climate change and water shortages in the West. Because weathering happens much faster in carefully controlled experiments at small scales than it does in the real world, it's hard to extrapolate research data. The Biosphere 2 experiment offers replication — the three identical hills will get exactly the same treatment — at an enormous scale, which will allow scientists to see the complex processes underway on landscapes outside.

ANNA NOWOGRODZKI



Each hill has more than 1,800 sensors including:



SOURCE: LANDSCAPE EVOLUTION OBSERVATORY

The biocrust conundrum

By destroying biocrust communities, climate change may be making arid lands more reflective — which could slow down warming

BY MAYA L. KAPOOR

In the high desert of Castle Valley outside of Moab, Utah, famous redrock spires and mesas tower over a less-noticed set of formations: biological soil crusts, or "biocrusts," tangled masses of mosses, lichens and cyanobacteria emerging from the desert floor. Although these formations are just a few inches tall, they sculpt entire ecosystems. Biocrusts glue the soil together, build soil fertility by pulling nitrogen from the air and converting it to a form usable by plants, and store atmospheric carbon. When it rains, they soak up water like sponges, slowing down runoff and helping store water for desert plants.

Now, new research published in the peer-reviewed journal *Scientific Reports* has introduced a bizarre twist into this hidden world: A changing climate may be killing the mosses and lichens in these vital soil communities. Yet their demise, in turn, may actually slow down climate change by making the planet's drylands reflect more sunlight back into space.

Drylands, which cover more than 40 percent of the Earth's land, are places where evaporation exceeds precipitation. Ranging from tundra to desert, they cover most of Western North America, including the Colorado Plateau, where this biocrust research took place.

Biocrusts live across these arid ecosystems. In areas that haven't been disturbed by walking, driving or grazing, biocrusts cover as much ground as plants do, and sometimes more, says Matthew Bowker, a soil ecologist and biological crust expert at Northern Arizona University.

Biocrusts are darker in color and more complex in texture than smooth, crust-free soils, so they have lower albedo, or surface reflectivity. They absorb heat and warm the soil surface, in part because their bumpy texture reflects sunlight at different angles and directions instead of sending it back into space. And the more complex biocrusts on the Colorado Plateau have lower albedo than the simpler, lighter ones found elsewhere.

Researchers recently published the results of a 10-year experimental study that found that those dark, textured mosses and lichens in complex biocrusts may die off over the next century. As they disappear, the albedo of the affected drylands may increase by more than 30 percent, which could be enough to slow down climate change.

The researchers set up experimental plots in the desert near Moab. They warmed some plots by up to 7 degrees Fahrenheit — the projected increase for the next 100 years — and gave some short bursts of 1.2 millimeters of simulated rain twice each week, to reflect the fact that rainfall is becoming shorter and more frequent in the region.

During the study's first year, mosses died out in plots that got extra water, or extra water with warming. Over the long term, though, mosses also died out in the plots that were only warmed.

Mosses often dry out and then return to life the next time it rains, using stored energy to resume their photosynthesizing. If it rains long enough to wake them up but not to let them build up energy reserves, the mosses starve to death. Although the mechanism involved isn't as well understood, lichens died out from treatments that included warming.

The researchers found that cyanobacteria — blue-green algae — grew in place of mosses and lichens, creating lighter biocrusts. Albedo in the plots increased by more than 30 percent, reflecting more of the sun's energy back into space.

Another potential feedback loop affects Colorado Plateau biocrusts, which develop particularly rough textures, in part because of the soil's freezing and thawing. As the region's climate warms, less freeze-thaw will further accelerate the move to smoother, lighter and more reflective biocrusts, which absorb less of the sun's energy. But the full effects of changing biocrusts on the warming climate are likely to prove more complicated.

"While at the surface it might look like, 'Hey, let's go out and drive all over the biocrust to help stop climate change,' it turns out that it could put us right back where we were, maybe worse," cautions Scott Ferrenberg, a USGS biologist who worked on the study. For example, without a network of biocrust holding the Colorado Plateau's soil together, wind erosion could throw enough dust onto nearby mountains to cover snowpacks, which are themselves important reflectors of sunlight. That could melt the snow more quickly and cancel out the cooling from the smoother, more reflective biocrusts. Plus, dead biocrusts will release all of the atmospheric carbon that they once stored as they grew. Further research will be needed to understand how biocrust changes will impact our climate system in the long term, says study lead Austin Rutherford, a graduate student at the University of Arizona. "Current climate models don't take into consideration a lot of these processes," he says. □

Maya L. Kapoor is an associate editor for *High County News.*

Healthy biocrust, left, forms a complex community of organisms with textures and colors that absorb the sun's energy in places such as Canyonlands National Park on the Colorado Plateau, right. SCOTT FERRENBERG, BILL BOWMAN

Recapture Canyon protest ride in 2014. JONATHAN THOMPSON

THE LATEST

Backstory

The Bureau of Land Management banned motor vehicles in southern Utah's Recapture Canyon in 2007, after unauthorized ATV trail-building damaged ancient Native American archaeological sites. In 2014, San Juan County Commissioner Phil Lyman led supporters on an illegal four-wheeler ride in the 1,871-acre area, harming several more sites. Lyman, a Sagebrush Rebellion backer, said they were protesting overly restrictive federal management. He eventually served a short prison term ("The rise of the sagebrush sheriffs," *HCN*, 2/2/16).

Followup

In early April, Interior Secretary Ryan Zinke announced plans to create a 7-mile trail system in the greater Recapture Canyon area, mostly on routes that ATVs were already using with the BLM's tacit approval. Motor vehicles still will be illegal in most of the canyon bottom. Zinke said the decision showed his determination to prioritize public-land access while still protecting cultural treasures: "For many persons with disabilities or for people who just don't get around like they used to, our public lands aren't accessible without motorized vehicles."

ELIZABETH SHOGREN

Fred Penasa sews up the skin of an oryx, an antelope relative native to East Africa, which was hunted on a game farm in Texas. Penasa specializes in bringing the big game of North America to life.
BROOKE WARREN

WEB EXTRA Watch a video of Penasa at work at **hcn.org**.

Dead or alive

Practicing the odd art of taxidermy

BY LEATH TONINO

Fred Penasa, the proprietor of Southwest Taxidermy in Montrose, Colorado, rubs his whitening beard with a hand scarred from countless scalpel nicks and sewing needle punctures. We're gazing into the glass pupils of a ram he shot in the San Juan Mountains. Winner of the 2006 Colorado State Taxidermy Championship in the Professional Division, this particular specimen will be descending a "rocky ridge" dusted with "snow" for the foreseeable future.

"It's the animal, sure, but it's also knowing where it lived, the wilderness it called home, how hard those winters can get," Penasa says. "I'm thinking about the story, about how it all went down, and I'm trying to recreate that story for my client. Maybe it was early morning. Maybe a raven had just flown by and the ram was turning, glancing backwards. …"

Over the last hour, Penasa has led me through his almost-2,000-square-foot shop and the quasi-magical process by which he earns a living. How else to describe the transformation of, say, an inside-out bobcat hide — stiff and pink like old chewing gum — into a fierce-looking feline that might leap from its mount at any moment? Or take the grizzly I've walked past a dozen times now, each encounter shivering my spine; the bear is deader than dead, but its careful preparation expresses an intimate biological knowledge and brings startling life to its freeze-framed roar.

Decades of meticulous labor have made it difficult for Penasa to see the animals he takes apart and reassembles as "wholes" rather than as "pieces." That's not to say he lacks appreciation — the bighorn is "majestic, just plain majestic" — but that his default setting is hyperfocus, what he calls "looking and looking again."

In the early 1990s, channeling his childhood passion for hunting — which is a piece of his broader passion for just staring at mountain goats and pronghorn antelope through binoculars — Penasa, a carpenter, signed up for a nine-week course at the Montana School of Taxidermy and Tanning. With all the steps from skinning and fleshing to "building your form" and "designing your habitat" under his belt, he started his business. He estimates that it's one of 200 or so full-time taxidermy outfits in Colorado.

"There's a high turnover rate with these backyard shops," he explains. "A lot of guys get into taxidermy thinking it's all glory, all trophy bucks, but you've got to really work hard to establish your reputation. My first five years, I was still a carpenter, doing taxidermy at night and on the weekends. I was going nonstop, trying to get things right."

While a commitment to accuracy — to realism — has long been the hallmark of topnotch wildlife artists, the profession has changed significantly since the early 1900s, both in regard to materials and techniques. To illustrate the progression from "back in the day," when the old-timers used scrap lumber and papier-mâché to make their forms, Penasa ushers me into a closet where a spooky mountain goat resides. Head sort of lumpy, nose a weird crust, eyes pale and flat, the creature resembles a cheap costume in a bad monster movie. "We use foam manikins now," Penasa says. "Synthetic antler reproductions, all sorts of fancy stuff."

Having shut the thing back into its cell, Penasa leads me into the main studio, a clean, bright, high-ceilinged space with smocks hanging from a nail in the wall and an assortment of tools — drawknives to paintbrushes — cluttering shelves and workbenches. It's somewhat reminiscent of an elementary school art classroom, if you disregard the numerous shoulder-mounted ungulates in various states of finish: shiny bolts protruding in lieu of antlers, tear ducts in need of touching up.

Penasa insists that despite 25 years of experience and 5,000 North American mammals to his credit, he's still got much to learn. "A big part of it is just studying the animals, knowing what they look like," he says. "Before Google, I was cutting photos from magazines, organizing all these scraps in folders, using them as references. How do the nostrils go?" He dumps a soggy, supple elk hide out of a white garbage bag, where it's been rehydrating in preparation for gluing to a foam form. "The art is making it natural. You're trying for perfection, but you can't ever reach perfection. You can't ever be good enough."

He leans over the hide, inspecting something minute. My attention wanders, coming to rest on a nearby mule deer, two beads of dew clinging to its whiskers; they're the tiniest of pinpricks, and yet they glisten, throw sparks of light.

"Mod Podge, just a couple drops," Penasa says, smiling, perhaps remembering the many hours spent molding that deer's ears from auto Bondo, its face from clay — perhaps remembering the satisfaction of applying that last dab of glue. "Brings the story in again, right? It's morning, he's roaming the meadow, and now maybe he's hearing something, looking up, wondering. …" □

Leath Tonino's writing appears in *Outside, Orion, The Sun* and other magazines.

Uncommon Westerner

Name Fred Penasa

Hometown Montrose, Colorado

Age 55

Vocation Taxidermist

He says "You see how many broken bones (animals) have had — skull fractures that fused back together, all kinds of stuff. But they just kept going."

Most difficult species Porcupine

Field trips School groups occasionally tour Penasa's shop, and he says it's easy to tell whether a kid comes from a hunting family or not: "Half of them are staggering around in a daze, totally fascinated. The other half are holding their noses, never even realizing that it doesn't stink."

Republicans push to split the 9th Circuit Court of Appeals

Bills to break up the big Western court have reappeared in Congress

BY ANNA V. SMITH

"People are screaming 'break up the 9th Circuit,' " President Donald Trump told a rally in Tennessee in mid-March. He was referring to the federal 9th Circuit Court, which had blocked his second attempt at banning travel from six Muslim-majority countries. After criticizing the judge, Trump proclaimed the decision to be "unprecedented judicial overreach."

It was the latest in a decades-long line of conservative attacks on what some critics call the "nutty 9th." This year, Republicans in Congress have once again introduced bills to split the Western Court of Appeals, arguing that it oversees too many states, takes too long to hear cases and gives liberal California an exorbitant influence. Lawyers and senators who disagree see the bills as judicial gerrymandering and an attempt to shift the 9th's decisions to the right.

The 9th is the largest federal court in the country, with jurisdiction over 65.1 million people in nine states. It has a bankruptcy court, smaller district courts and an appeals court, and sees far more cases than the other federal circuit courts. Cases in its jurisdiction are first heard in a district court. If either side is dissatisfied with a district judge's ruling, they can ask to make their case in the appeals court, the last stop before the U.S. Supreme Court.

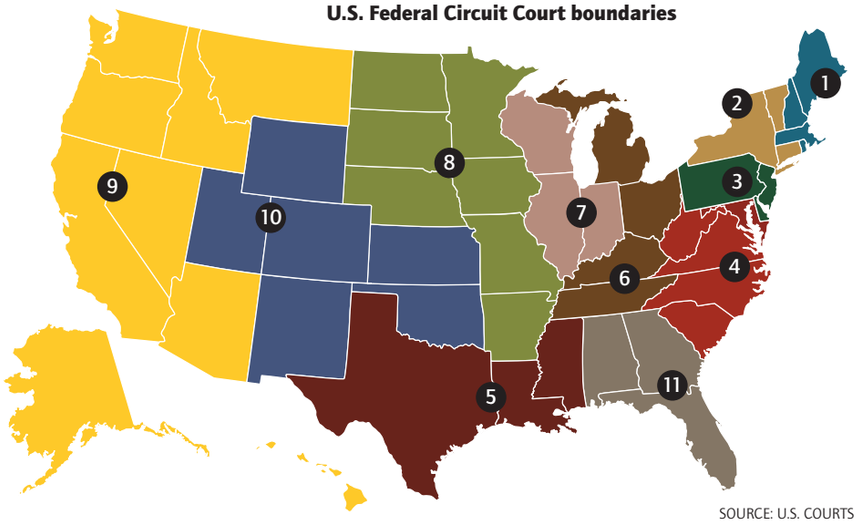
The 9th Circuit Court — along with the 10th, the only other court that includes Western states — sees many contentious environmental cases. That has made it influential in the region. Last October, the 9th set precedent by ruling that wildlife could be listed under the Endangered Species Act based on projected losses from climate change. In January 2016, it ruled on the prominent public-lands dispute between Nevada rancher Wayne Hage and the federal government, overturning the Hage estate's 2012 victory. The Hages have waged an ideological and legal battle against the federal government, insisting they didn't need grazing permits. "It looks to me like the 9th Circuit just swelled the ranks of the militias," Hage's son, Wayne N. Hage, told the *Las Vegas Review-Journal* after the decision.

Bills to divvy up the 9th have been introduced since the 1980s. Rep. Mike Simpson, R-Idaho, has unsuccessfully introduced bills to split the court in every session since 2001. In March, the day after Trump's rally, a Senate committee where partisan politics simmered heard arguments for and against a split. Critics point to the court's sheer size; the 9th is currently understaffed, with an average 15-month wait for cases to be heard. They say smaller courts would be more efficient, though that would only be true if more judges were added. Those opposed say that instead of breaking up the court, current longstanding vacancies should be filled and the overall number of judges increased — judges that would be chosen by Trump and approved by Congress. "The solution is not to duplicate management and create more bureaucracy," 9th Circuit Judge Sidney Thomas said in a 2006 Senate hearing on the court. "The best path is to become more efficient and effective by pooling our resources and using economies of scale."

The 9th has generally been considered more liberal than other circuit courts; 63 percent of the current judges were appointed by Democratic presidents. Trump and other critics argue that the Supreme Court's 80 percent reversal rate of the 9th's rulings proves it's biased. But the Supreme Court hears only .15 percent of cases ruled on by the 9th Circuit, meaning the actual number of cases overturned remains low. Holly Doremus, a law professor at UC Berkeley who clerked for the 9th, says the idea that the 9th is overtly liberal is a "mythology" that doesn't bear out. "There has long been a sense in the Intermountain West that California urban liberals have too much influence on their law," she says. Indeed, Rep. Andy Biggs, R-Ariz., said he hoped his bill would "free Arizona from the burdensome and undue influence" of the 9th.

The current bills in Congress shuffle the states differently, but generally create a 12th Circuit Court and separate California from the Intermountain West. Sometimes, they make for messy scenarios on the ground. For example, Arizona Sen. Jeff Flake's bill would split Lake Tahoe, which straddles the California-Nevada border, between two different circuit courts. The price tag for any such split is high: In 2006, the Administrative Office of the U.S. Courts found that creating a 12th Circuit would cost $96 million to create and $16 million annually to maintain.

Given the track record of past bills and other pressing issues, it's unlikely that Congress will split the court now. But the bills have more visibility than in recent years because of Trump's friction with the judicial branch and Republican control of the House and Senate. It's happened before: The 5th Circuit Court split in 1981 after judges voted unanimously to break up. That unanimous perspective has never been shared by the 9th, however. "Circuits on the East Coast have been fragmented from the 18th century, but why in the 21st century should we set out to create a similar system in the West?" then-Chief Judge Mary Schroeder asked the Senate in 2006. "We in the West didn't grow from 13 colonies." □



SOURCE: U.S. COURTS

Anna V. Smith is an *HCN* editorial fellow.
@annavtoriasmith

Don Neubacher
COURTESY MARIN IJ/FRANKIE FROST

THE LATEST

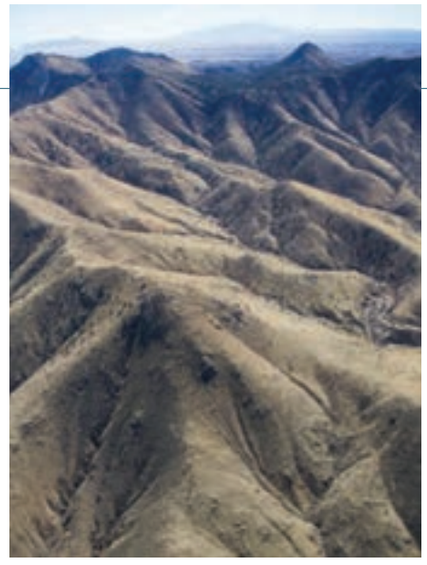
Backstory

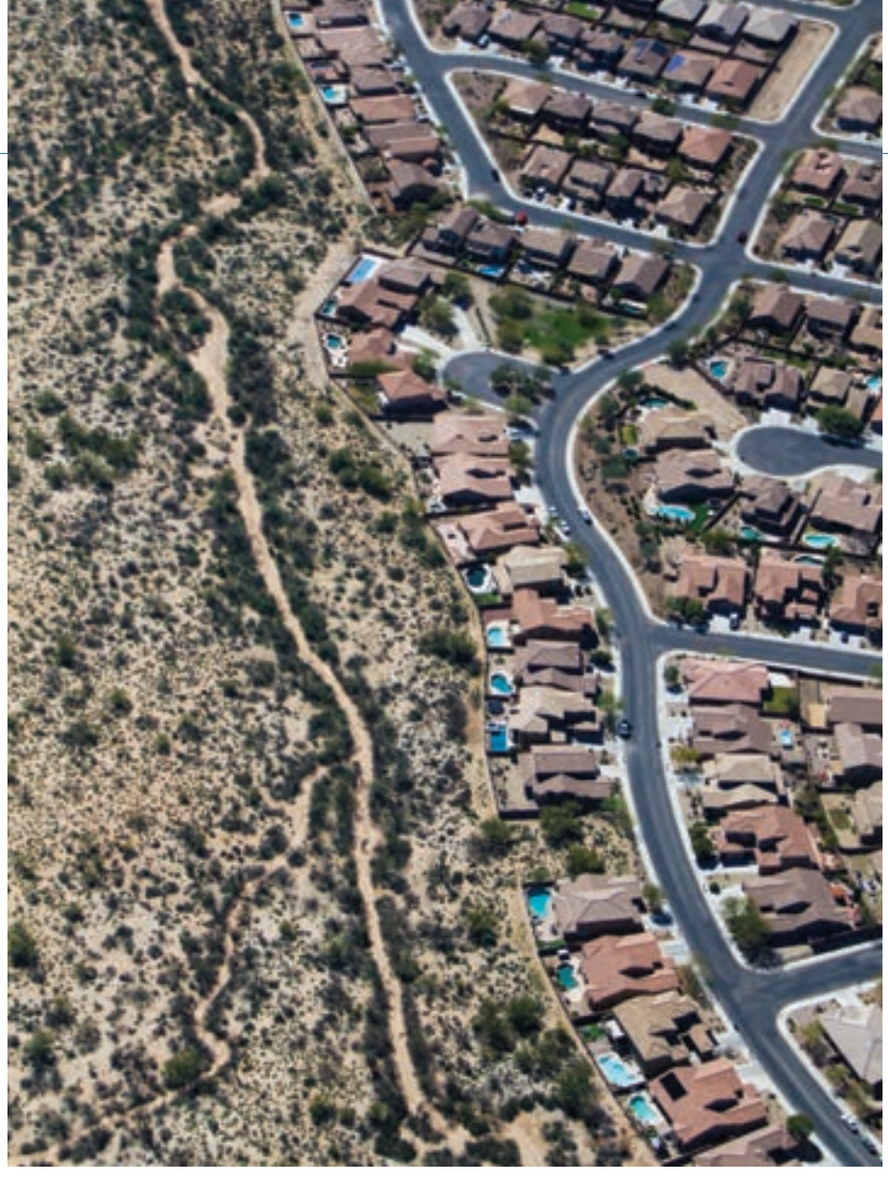
Gender bias and sexual harassment have long been systemic problems within the National Park Service. Last fall, **Don Neubacher, then superintendent of Yosemite, faced accusations of discrimination during a congressional hearing on agency misconduct and mismanagement.** "Dozens of people, the majority of whom are women, are being bullied, belittled, disenfranchised and marginalized," testified Kelly Martin, the park's chief of fire and aviation management. A week later, Neubacher announced his retirement ("How the National Park Service is failing women," *HCN*, 12/12/16).

Followup

On April 10, the U.S. Interior Department Inspector General released a report largely dismissing the accusations against Neubacher. **The investigation "found no evidence that ... management decisions were motivated by bias or favoritism," though Neubacher could be a difficult supervisor — "a poor communicator and a micromanager,"** according to one employee. But the agency still has work to do: A separate report, released April 12, described misconduct at Yellowstone, including on-the-job drinking, verbal abuse and sexual harassment.

EMILY BENSON





Conservation lands and development around Tucson, including, clockwise from right, the Santa Rita Mountains; new development in Oro Valley encroaches on existing conservation land near the Catalina Mountains; a gas pipeline, seen as a light-colored line, disrupts the natural washes and habitats in the Sonoran Desert.
JORDAN GLENN WITH SUPPORT FROM LIGHTHAWK FLIGHTS

An end to the growth wars

Arizona county's conservation plan balances science and politics

BY TONY DAVIS

As the small Cessna airplane flies above Tucson, its passengers see the rugged, low-lying Tortolita Mountains to the east, followed by the huge green blocks of cotton fields. Over to the west, the bright blue Central Arizona Project canal slices through the desert. Farther south rise the untrammeled desert mountains of Saguaro National Park-West.

This aerial view showcases both the conservation successes and failures in the Sonoran Desert surrounding Tucson, whose population totals about 1 million. In the past 17 years, Pima County has spent nearly $200 million, raised through voter-approved bond issues, to preserve more than 200,000 acres of deserts, mountain parks, riparian areas and grasslands. Though red-tile roofs dominate much of the land, which is surrounded by five publicly owned mountain ranges, you can still see plenty of open desert dotted with dark green mesquite and palo verde and gray-green cactus.

The county's preservation efforts have also put it in the cattle business. The protected lands include 140,000 acres on which the county controls grazing leases. Ranchers who once feared that their remote mesquite flats and grasslands would be gobbled up by speculators still ply their trade, albeit with much-reduced cattle numbers.

All of this is thanks to one of the most aggressive and ambitious urban land conservation efforts ever undertaken in the Southwest. Approved in fall 2016 by the U.S. Fish and Wildlife Service after nearly 20 years of work, Pima County's Multi-Species Conservation Plan transformed the politics of a region that was infamous for endless sprawl. It protects dozens of vulnerable species and conserves biologically sensitive lands while permitting development on other lands, thereby ending conflicts over growth that had dragged on for decades. The plan has become a national model, drawing praise from scholars, land planners and environmentalists around the country — particularly for the way it insulated scientific input from political considerations.

"It remains critical that scientists working on a conservation plan — or any project for that matter — be relatively isolated from political pressures," says Reed Noss, a conservation biology professor at the University of Central Florida, who worked on a county-funded peer review of the plan back in 2001. "Scientists still must take into account political realities, so that what they produce is relevant and feasible. But they should not be pressured."

Pima County's habitat conservation plan grew out of a culture of runaway development and extreme political conflict. The catalyst was the 1997 federal endangered species listing for the cactus ferruginous pygmy owl, a small raptor whose desert-wash habitat was imperiled by development and groundwater pumping. Until then, the county had routinely

WEB EXTRA
See more aerial views of Tucson conservation lands from photographer Jordan Glenn's flight with LightHawk at **hcn.org**

Tony Davis writes for the *Arizona Daily Star* in Tucson. @tonydavis987

approved major rezonings for well over two decades, despite opposition from local environmentalists. At the time, the desert was being paved at the rate of an acre every two hours, pushing Tucson's suburbs toward the edge of the surrounding national forest and parkland.

The pygmy owl's listing resulted in significant growth restrictions. Hoping to avoid similar controversy and litigation over other species, Pima County Administrator Chuck Huckelberry and his staff, prodded by environmentalists, started work a year after the listing on a long-term Sonoran Desert Conservation Plan to protect the county's natural and cultural resources. As part of that effort, they developed a plan to protect dozens of imperiled species. To determine which lands were most essential to wildlife, they created a "firewall" around a committee of scientists, insulating them from political pressure. "County leaders stated from the outset that their primary goal was to conserve biological diversity through a scientifically defendable process, not to come up with a plan that everybody could agree on," wrote the late urban planning specialist Judith Layzer in her 2008 book *Natural Experiments,* which analyzed more than a half-dozen regional land-conservation efforts.

The scientists and county staff discussed the plan in public sessions, but county officials made it clear that their work would not be derailed by complaints from developers and other critics. The scientists established standards for identifying biologically valuable lands and used computer models, observation records and the judgment of local naturalists and recognized experts to come up with a biological preserve map.

In contrast, in other multi-species plans, scientists, politicians, agency staffers, developers and moderate conservationists collectively determined which lands to save, thus bringing political and economic considerations into the science.

Looking back this spring, Huckelberry, a former county transportation chief, says he was simply applying the best practices from his previous job, highway planning, to land conservation. Typically, both a technical committee and a citizens' committee review big road projects, he says: "The whole purpose of a technical advisory committee is not to play with the numbers, not to slant the analysis. We felt the political side could potentially be used to manipulate the scientific side, and felt that would bias the entire process."

After the science team created a map of the proposed preserve system, a separate steering committee of 84 people, including developers, environmentalists and neighborhood leaders, haggled over its details. By then, though, the plan's broad vision was already solidly in place.

The scientists' work led to the creation of the Conservation Lands System, 3 million acres of picture-book Sonoran Desert, grasslands and riparian areas, with about 60 percent of it preserved as open space. Nine of the 44 vulnerable species protected by the system are on the federal endangered species list, including the Gila topminnow, the western yellow-billed cuckoo and the Pima pineapple cactus.

In 2003, the county took another major step by folding the multi-species plan into its broader Sonoran Desert Conservation Plan, which calls for conserving ranches, protecting culturally and historically sensitive properties and expanding an existing mountain park network.

Developers, homebuilders and realtors initially howled at the proposed multi-species plan, but backed off after winning two concessions. First, Huckelberry promised not to propose additional land-use regulations. Second, the county agreed to give small landowners more leeway, because their projects have much less impact. "As soon as it was clear it was going that way, most of the opposition from private-property owners dissipated," says realtor Bill Arnold, leader of a vocal property-rights movement.

The plan's backers say it also benefits developers. Within the million-acre area governed by the county's federal Endangered Species Act permit, landowners who sign up for voluntary coverage under the plan are then exempt from prosecution for unintentionally killing or harming any federally protected species on their property. If any of 35 other species are later placed on the endangered species list, the landowners won't be subject to new restrictions. The plan may also exempt them from protracted biological reviews if their projects need a federal Clean Water Act permit.

Coverage under the multi-species plan is "an insurance policy," says Jenny Neeley, the county's conservation science program manager. "It comes down to risk assessment." If there's a chance any of those 44 species might be on a landowner's property, they'd do well to sign up for coverage, which costs from $720 to $3,160 per development project. (Builders of individual homes don't have to pay.)

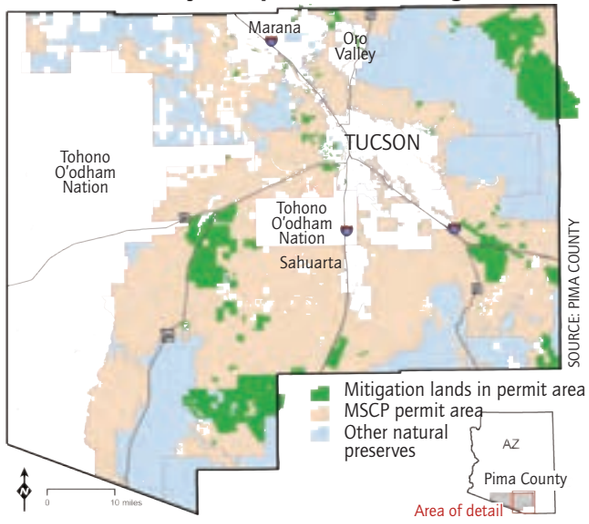
Whether they opt into the multi-species plan or not, all builders must also comply with tough county rules protecting riparian areas, native plants and hillsides, including a requirement to preserve at least 65 percent of sensitive lands. "It's better than what we had anticipated," says David Godlewski, president of the Southern Arizona Homebuilders Association, adding, "We still maintain that Pima County has some of the most restrictive environmental policies in the U.S."

Layzer's 2008 book called the overarching Sonoran Desert Conservation Plan the most effective federal habitat conservation plan in the West: "Overall, (it) has shifted the status quo in Pima County from unfettered development accompanied by protection of isolated parcels to managed growth and landscape-scale conservation."

Yet the county's plan has limits to its power and scope, and now faces new challenges. In a huge swath of desert grasslands southwest of Tucson, for instance, some of the county-owned ranchlands now are crossed by an underground natural gas pipeline, which left a scar on the land and may increase soil erosion.

And in some of the prime foothills areas, tile roofs now dominate land that environmentalists had hoped to conserve; it has been rezoned for high-intensity development. And east of Tucson along the San Pedro River, a $2 billion power line project could damage grazing lands and riparian areas.

Eastern Pima County MSCP permit area and mitigation lands



Environmentally speaking, it will take years of monitoring the protected lands to determine if the multi-species plan meets its goals. And drought and climate change could threaten the land's future health. "Anytime you look at conservation on a landscape level, you take a chance that you are not hitting the right target," says Carolyn Campbell, director of the Coalition for Sonoran Desert Protection, which led the charge for the Sonoran Desert plan. "But I will say that conservation has already happened here, because of land set aside in perpetuity."

Economically, the plan has been an absolute success, county administrator Huckelberry says. In the past year or so, the county says it has landed about 5,000 new jobs, with little environmentalist pushback. The jobs are generally not planned for sensitive lands, but more importantly, the preservation of so much open space has muted what would have been fierce opposition to some of the projects involved. Acquiring open space, Huckelberry says, "has really ended the growth wars." □

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ONCE AND FUTURE RIVER: RECLAIMING THE DUWAMISH
Photographs by Tom Reese, Essay by Eric Wagner
184 pages, hardcover: $39.95. University of Washington Press, 2016

In *Once and Future River: Reclaiming the Duwamish*, photographer Tom Reese and writer Eric Wagner grapple with what restoration means: When a river has been altered beyond recognition, to what state should we restore it? What do we owe to a landscape we've damaged so deeply? And should we even try to rescue something that's become too fragile to survive without us?

The manmade and the natural intermingle in these pages as they do along Seattle's Duwamish River, a body of water straightened, dredged and polluted. A pile of concrete echoes a mountain; a collection of objects culled from the water by cleanup volunteers mirrors an osprey nest built of "locally sourced materials." From the recovering chinook salmon to the manufacturing plants that turned the Duwamish into a Superfund site, the images in this book portray a dynamic river carrying its complex legacy into a difficult recovery. **REBECCA WORBY**

A family sits at a restored riverside beach in South Park, top. Ospreys migrate seasonally from Central and South America to breed along the Duwamish, bottom. TOM REESE

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Fresh eggs, journalism awards and more visitors

The sun has been shining for weeks here in Paonia, Colorado, and despite some frosty nights, we are in the full throes of spring. A thin layer of snow coats Mount Lamborn above town, but down here, fruit blossoms have burst forth, and blooming hyacinth, daffodils and tulips have brought a riot of color to yards and parks. Our staffers are sprucing up their gardens, and our circulation associate, **Pam Peters**, is keeping us well supplied with fresh eggs from her warmed-up chickens.

Spring means an uptick in visitors, as readers emerge from their winter dens to come see us. Subscribers **Sarah Brooks** and **Valerie Cotten** from Fort Collins, Colorado, stopped by in late March after a week in Utah, where they saw the San Rafael Swell and Capitol Reef National Park. They reported that the trees were still brown in their hometown, so they were happy to see our budding spring leaves.

Reader **Ethan Mansfield** also dropped by in March. Originally from Boise, Idaho, he'd just accepted a job in nearby Glenwood Springs, with a company that helps rural communities with planning and economic development.

Jane Schelly and **Doug Potter** came by for a tour. From Coeur d'Alene, Idaho, the pair passed through on their way from Aspen to Telluride on a ski trip. Doug's a longtime subscriber, who used to steal his parents' old *HCN* issues. We don't condone theft, but we understand the temptation. Thanks for coming by!

In other news, our partnership with the Solutions Journalism Network, with whom we're working to improve news in rural communities, continues to bear fruit. In 2016, the six-part series "Small Towns, Big Change" won first place in the Society of Professional Journalists' Top of the Rockies awards for education, health and environmental enterprise reporting in our circulation category.

The series also won first place in Public Service Journalism. *HCN* will continue working with the Solutions Journalism Network in 2017 and 2018, and we're excited to see what else comes of it.

Lastly, a few corrections. In "The Tree Ring" (*HCN*, 3/20/17), we incorrectly stated how much money maple wood sellers make. They typically receive a few hundred dollars per load, not per block. In the same issue, the essay "Arctic Owling" stated that snowy owls are the only diurnal species of owl. In fact, several owl species hunt during the day. And in our April 3 issue cover story "Firestorm" we misstated the official name of San José State University and the title of Neil Lareau, who is a postdoctoral student, not a Ph.D. student. We regret the errors.

—Anna V. Smith, for the staff

Circulation Associate Pam Peters' chickens laid these fresh eggs, which the rest of *High Country News* staffers have been gobbling up. BROOKE WARREN

FEATURE BY SARAH SCOLES | PHOTOGRAPHS BY GEORGE FREY

Change Comes to Short Creek

The modern West encroaches on a fundamentalist Mormon empire

In 2011, the leaders of the Fundamentalist Church of Jesus Christ of Latter-day Saints proclaimed what some in their community would come to call the "Dishrag Revelation." Church authorities demanded that the faithful give all their property — down to the dishrags — to the church. The authorities would then redistribute to each family what they needed, according to the judgment of those same authorities. If someone brought in two flashlights, for example, they might get only one back, and not necessarily one of those they gave away.

"This is not real," former member Sheldon Black remembers thinking. "This is a bad dream."

And then it got worse. Black, talking to me in his shop in June 2016, says church leaders called him to the meetinghouse in Hildale, Utah, in June 2012. He walked down a dark hallway toward the one illuminated room. Inside sat religious leaders Isaac and Nephi Jeffs, Rich Allred, and Nate Jessop. They made him wait outside for 30 minutes, with only a hymnal for company. He paged through it, scanning notes and lyrics that he'd sung his whole life.

When they finally called him in, they had a special revelation for him: According to Warren Jeffs, the prophet whose dictates were church doctrine, he and his second wife, Cindy, had committed "abortive miscarriage."

Black knew that hadn't happened. "I lived my whole life trusting these people, and now they're shoving this lie and telling you it's God's truth," he says.

But Black also knew that he had to give this room of illuminated figures exactly what they wanted: submission, acceptance, a humble "I guess." He'd always said "yes" to church leaders — *yes, I will give you my dishrags and my paycheck. Yes, I sustain you as prophet. Yes, I will marry the girl you chose for me.*

So, after some hesitation, he agreed to the false accusation, too. And to the subsequent excommunication. Like the hundreds of others the Jeffses have excommunicated in recent years, he would have to leave town — the only home he'd ever known, the house he'd built, his two wives and all of his children. He would not be allowed to speak to or see any of them.

Along with every other FLDS member, he had previously signed custody of his kids over to the church, a state of affairs detailed in numerous court cases and confirmed in interviews with ex-FLDS members and their legal representatives. FLDS parents have "stewardship" over their offspring — and husbands have it over their wives — but members are told that both women and children "belong" to the religious organization. Parents are to care for their families, but when the prophet decides to transpose family members — a wife swapped to a new husband, kids sent to a different caretaker — the people say yes. They walk away from their marriages and watch their children move into different houses. They turn their backs on their town.

Black went home, knowing that Cindy would soon get a phone call, telling her about the miscarriage she had not had. The leaders would send her away. Their children would be "redistributed"; his first wife, Angela, and *their* children would be "given" to caretakers, or to a new husband and father figure. As Black tells me this story, Cindy sits next to him, silent and nodding.

When Cindy's call came, Black looked across the room at his thin, gray-skinned wife, malnourished from church-mandated food restrictions. He thought of her alone in the world, an alien place. He imagined her dying out there and wondered what would happen to their kids. He pictured himself, alone.

Later, as the spouses prepared to leave, separately, church officials said to Black, "We'll take the children, if you will."

And he thought, but did not say: "What if I won't?"

A woman with bare legs and modern clothes holds the door of the U.S. post office in Colorado City, Arizona, for a woman and boy in the traditional clothing of the Fundamentalist Church of Jesus Christ of Latter-day Saints. Colorado City and Hildale, Utah, make up the community known as Short Creek, once a polygamist stronghold and former home to FLDS prophet Warren Jeffs.

During his tenure, Warren Jeffs, with the help of on-the-ground leadership, banned toys and pets; televisions and internet access; any interaction with outsiders.

He and Cindy agreed to leave together, and take the children with them. And so in secret, in the middle of the night, they all left in their van.

When the Blacks entered the world outside of their polygamous enclave — the twin towns of Hildale and Colorado City, Arizona, collectively called Short Creek — the children were horrified. They put pillows up to the windows so they wouldn't have to see the nearly naked pedestrians with their bare limbs, a far cry from the long-sleeved shirts, long-legged pants and modest prairie dresses that were *pro forma* in Short Creek.

The family sojourned in Flagstaff, Arizona, then in Nevada, Salt Lake City and Idaho, assisted by already-out family, other former FLDS members, and an organization called Holding Out HELP. Soon enough, their children stopped shielding their eyes. They even watched their first movie. "They didn't smile or anything," Black tells me, although he smiles himself at the memory. They just stood up and looked closer at the screen, trying to decipher this technological magic.

But the magic couldn't last. Black soon heard that back in Short Creek, his first wife, Angela, had also been sent away. Her kids — his kids — were living alone with his adult son, Sheldon Jr.

"I had two underage daughters, and I knew what they were going to be getting into," Black says: meaning, potentially, forced relations with older men. Now he was asking, "What if we just take the children?"

Black is not alone in asking that question. He represents a growing demographic: former FLDS parents who have returned to Short Creek to try to wrest their children away from the church, often with the help of lawyer Roger Hoole, who prepares and serves the legal documents and contacts helpful law enforcement.

The prophet who giveth may take away. But some of the people he taketh away from aren't putting up with it anymore, another sign of cracks in what had been, for more than half a century, an impenetrable and opaque world. With its leaders in legal trouble, population booming in the nearby metro area, and former exiles returning, Short Creek is secularizing, and the FLDS hold over the town is loosening at last.

THE BLACKS' FORMER RELIGION is a controversial offshoot of Mormonism, or the Church of Jesus Christ of Latter-day Saints (LDS). The mainline Mormon Church officially espoused polygamy in 1843. Its founder, Joseph Smith, married as many as 40 wives, according to Mormon leaders. His successor, Brigham Young, took 55 wives. But their fellow citizens in the American East and Midwest had strong objections to their polygamous and quasi-theocratic communities — towns like Nauvoo, Illinois, a place not all that dissimilar to Short Creek.

So, like unhappy misfits since America's founding, the Mormons headed West. In the 1840s, Young led around 70,000 settlers to the Utah Territory's Great Basin. It was the perfect spot: bounded on the east by the wall of Wasatch Mountains, sitting next to the huge but useless Great Salt Lake — and, at that time, beyond the reach of United States law.

Polygamy went unpunished until the Utah Territory was acquired from Mexico in the Treaty of Guadalupe Hidalgo in 1848. U.S. leadership attempted to rein in the Mormons and separate the church and the soon-to-be state. For a while, polygamy survived, and church leaders dispatched the faithful to set up polygamous outposts across the West, including in Short Creek. But then came the Edmunds-Tucker Act of 1887, which prohibited polygamy, disincorporated the LDS church, and allowed the government to confiscate its assets.

Three years later, citing nothing less than the will of the Lord, then-prophet Wilford Woodruff declared that the LDS church would abandon the practice.

Many Latter-day Saints saw this declaration as terrestrially, not celestially, motivated. And in the far-flung settlements across the West, men continued to marry multiple women. Short Creek, in particular, became a known "safe space" for polygamy. Like Salt Lake City, it had both natural and manmade protections. It straddled the Utah-Arizona state line, complicating law enforcement. The Vermillion Cliffs rose on one side, and the Grand Canyon fell 40 miles away on the other. No one would bother them here.

Short Creek's polygamy-practicing members were excommunicated from the official LDS church in the 1930s, and the area took on its own religious identity, which later became the more official FLDS church.

A woman does yard work at an FLDS store and storehouse in Hildale, facing page. At left, girls in traditional FLDS clothing play in the muddy waters of Short Creek, which separates Hildale and Colorado City. Below, one of the hundreds of abandoned homes of Short Creek once claimed by the FLDS. The state of Utah seized the properties in 2005, and through a local organization called the United Effort Plan Trust is in the process of returning them to former and current FLDS members.

And for a long time, life was, if not idyllic, at least less Orwellian than it is now. I spoke to former members who remember their childhoods fondly, and think of Short Creek past as a pleasant place. In those days, church members could watch movies, ride bicycles and hold public festivals, without the constant threat of excommunication. Problems existed, of course, especially for women, who were still married off at young ages and had little control over their lives. Children worked long days to support the church and its businesses.

For the most part, until the past decade or so, the federal government let the FLDS live undisturbed in the Arizona Triangle. Turning a blind eye, living and letting live — choose your own cliché to describe its lack of response. But there have been notable exceptions. In 1953, for example, the Arizona National Guard raided Short Creek, arresting 36 men and taking 86 women and 263 children into state custody. It took up to two years for some of the men to be released on probation, after they promised to give up polygamy — a promise they swiftly reneged on.

It's an incident that looms large in FLDS culture, a documented historical event that justifies the sense of persecution. In local Cottonwood Park this June, I came across a rock memorial to the event. Carved like a formal commandment into it are the words: "We must never forget how the Lord blessed us in restoring our families taken in the 53 raid."

But in '53, the threat to FLDS families came from outsiders. Now it comes from insiders — some of them among the innermost.

TROUBLE TRULY BEGAN when a prophet named Rulon Jeffs began to age, in the late 1990s. As Rulon's health declined, one of his sons, Warren, started to siphon power away. In 2002, when his father died, Warren Jeffs assumed the presidency. Children and women were church-owned property, to move around whenever he wanted. That had always been true to some extent, but Warren Jeffs was the first to fully flex the muscles just beneath the skin of the hierarchy.

He began marrying adult men to underage girls. His flight from prosecution landed him on the FBI's Most Wanted list in late 2005. The authorities caught him in 2006 and jailed him for 10 years to life in 2007, but the Utah Supreme Court overturned the conviction in 2010. The next year, though, he was sentenced to life plus 20 years for two counts of sexual assault on minors.

During his tenure, Jeffs, with the help of on-the-ground leadership, banned toys and pets; televisions and internet access; any interaction with outsiders. Dishrags sat on shelves in the communal storehouse. After Warren Jeffs' sentencing, his brother, Lyle, continued his policies. The Jeffs brothers could pluck a woman from her husband and force her into another relationship, seemingly at random. They could send the children to a different house entirely. They could excommunicate either or both parents, and send the kids to a caretaker. They exiled boys who might be marital competition and sent away business-owners to minimize their influence.

Kristyn Decker, who grew up in a parallel polygamous sect called the Apostolic United Brethren, says she doesn't know of a single intact family. Decker now heads Holding Out HELP, the organization that helped the Blacks find refuge. She believes that the crisscrossing of kin — and the constant anxiety of wondering who will be next, and when — furthered one of Warren Jeffs' goals: Everyone's strongest attachment would have to be to him. "He's ripping people's hearts apart," she says. "People are getting to the point, even the elderly people, where they can't love someone."

Hoole estimates that the Jeffses have excommunicated hundreds of people. While census-style data are not available, local organizer Terrill Musser estimates that between 1,000 and 1,400 FLDS members remain — way down from the heyday of 10,000. Many have left or been forced out, while others have moved to a new headquarters in Texas. Musser says between 100 and 200 of the excommunicated people have returned to Short Creek.

But Jeffs' grip is loosening. He's in jail, after all, and the leadership of the church is uncertain. He issues decrees, but so does Lyle Jeffs. Members of the church — and people who are excommunicated but still faithful — may hear about the crimes of those in charge and feel the leadership vacuum. Warren Jeffs has said he was never a prophet; he has also said he is absolutely in charge. And

With its leaders in legal trouble, population booming in the nearby metro area, and former exiles returning, Short Creek is secularizing, and the FLDS hold over the town is loosening at last.

now Lyle Jeffs is on the lam, and Nephi Jeffs is the new bishop. The Short Creek residents I spoke to said they did not know how to reach church leaders, who are largely jailed or in hiding and who are, in any case, forbidden to speak to infidels from outside like me.

The FLDS faithful are also now surrounded by former members, who are now considered apostates. The state of Utah took over the church's financial arm, the United Effort Plan Trust, in 2005. In 2014, the state-run trust began returning houses to the exiles that had built them, but that they had been evicted from. But that means kicking faithful FLDS members out of the houses in which they've been living, forcing them out of the area they've called home for generations. "You have one group of people that might be celebrating the changes in the town," says Christine Marie Katas, one of the few non-FLDS people that FLDS members will talk to, "and you have another group of people that are in a state of psychological crisis because they believed this was their religious heritage."

That demographic shift has begun to secularize Short Creek and opened it to outside influence even as its geographic isolation is ending. Nearby St. George is the fifth fastest-growing city in the nation, drawing retirees and sun-lovers who don't adhere to even mainstream Mormonism. More mountain bikers are riding the trails on Gooseberry Mesa, just north of Hildale. And Zion National Park, a mere 10 miles or so from Short Creek, has become so popular that officials are considering creating a cap on the number of visitors. A town that was once on a road to nowhere is now on a highway with REI-recommended destinations.

Visitors are rarely harassed as they once were. In the two visits I've made, I have experienced none of the harassment — stalking by church security or hostility at local businesses — described in earlier accounts like *Under the Banner of Heaven* and *Prophet's Prey*. When I arrived in town on a May trip and needed a sandwich, the gentile-owned local Subway gladly obliged. And in June, while I was waiting for an interview, I took a hike up Maxwell Canyon. A group of girls in prairie dresses — current FLDS members — were getting water from pumps near the trailhead. They shyly walked up to me, played with my dog, and asked where I was from and if I thought it was pretty here. I watched a group of truck-driving men silently tow a tourist's stuck car out of a ditch, and I saw a long-sleeved boy ride a bicycle down the street.

There is talk of a new grocery store. Last year, the town held its first public festivals since Jeffs banned them. The old church storehouse is now a public high school.

Federal intervention has also forced Short Creek to be friendlier to outsiders. In March 2016, a federal jury ruled that the town discriminated against non-FLDS members, denying them basic services like utility hook-ups and building permits. In December 2016 closing court arguments, the Justice Department said that the local police force should be disbanded, suggesting the Mohave County Sheriff's Office could soon take over local law enforcement entirely. In April, though, the judge ruled against that, instead requiring revised procedures and an independent mentor. "It takes a long time to build up the trust with the victims for them to feel safe enough to come to outside agencies for help," says Buster Johnson, a Mohave County supervisor. "This should have happened years ago, but government agencies have protected the abusers in Colorado City."

On top of all this, an ongoing federal fraud case alleges that 11 top leaders, including Lyle Jeffs, ordered church members to apply for food stamps, which were then relinquished to the church. With the eyes of so many judicial agencies on the FLDS, the era of "live and let live" seems to have died.

Briell Decker stands in the industrial-sized kitchen of the Hildale compound where she once lived as one of the wives of FLDS Prophet Warren Jeffs. Now, she's left the church and gained ownership of the property through the United Effort Plan Trust, and is seeking financing to convert it to a commercial enterprise. Below, Decker walks through an outdoor courtyard of the property below the words "Pray and obey."

BUT THE GROWING INFLUENCE OF THE OUTSIDE WORLD has pushed some members, as well as the leaders who control them, to double down, according to Musser, who left the FLDS when he was 18 and returned to his Short Creek house last year. If there's anything that binds together a religious group, it's a persecution narrative. It was true in 1840s mainline Mormonism; it's true in the 2010s fundamentalist offshoot.

Black knew that his still-faithful adult son, Sheldon Jr., was currently car-

ing for the children Black had had with his now-excommunicated first wife, Angela. He did not want his children raised in the FLDS culture. Parentless kids, forbidden to attend public school, are sometimes sent to work, says longtime Short Creek activist and former FLDS member Andrew Chatwin. He has photos of children welding at New Era Manufacturing Inc., which machines components for the aerospace and medical industries, and of girls driving around at midday, sitting four across in the front seats of delivery trucks. As he and I drove around town in June, we passed just such a crew, stopped in front of us at an intersection. The Department of Labor has multiple ongoing investigations against the church for child labor, according to regional director Juan Rodriguez.

Sometimes, leaders send the "orphaned" kids to "houses of hiding" scattered across the American West, Canada, and Central and South America, in a network detailed in a Department of Justice fraud investigation. The FLDS have also set up more outposts, like the Yearning for Zion ranch in Eldorado, Texas; a colony in Bountiful, British Columbia; and, most recently, one in Pringle, South Dakota. But the Texas site has already been raised by federal authorities and is now in the crosshairs of the Department of Labor, and the residents of Pringle are not quiet in their concerns about the newcomers. Starting a secluded town in the 21st century is even harder than keeping a once-secluded town cloistered in the face of creeping secularism.

Black knew that girls are sometimes trafficked between compounds for sex. Today, intercourse is only allowed between about 15 high-ranking "seed bearers" and whichever FLDS women (or girls) they choose, according to custody hearing documents filed by Lyle Jeffs' estranged wife Charlene. Black didn't want a "seed bearer" choosing his daughters. So he went back to Short Creek to rescue them.

When people like Black want to reunite with their children, they talk to Hoole. "My work has been basically to respond to parents who come to me and say, 'You know what, I've woken up. I've got to get my kids out of there,' " he says.

That may be straightforward legally — petitioning for custody if one parent actually lives with the children, simply exercising existing custody rights if both parents are out of the church. But it's not that easy in practice: The still-loyal parent will "fight like crazy," says Hoole, to keep the kids away. Caretakers will resist. In Short Creek, local law enforcement may not cooperate. And the kids are rarely still living where the parent left them. Sometimes, they're in the houses of hiding; other times, they're behind the 10-foot walls that buttress faithful FLDS houses. Returnees catch glimpses of their family members in cars, the drivers' identities hinting at where their offspring now live. Sometimes they find out their family's location by accident, as returnee

Sisters Velvet (on skateboard) and Kayrence Barlow play in the parking lot of the City Library, which used to be the Sunday school building for the FLDS church. Their father, Lawrence Barlow, left the FLDS church a few years back. While Velvet chooses to wear modern clothes, Kayrence continues to wear the traditional prairie dress and hairstyle of the FLDS. Below, activist Terrill Musser, who left the church at age 18, has returned to Short Creek with his wife, Heather, and they're raising their family in this Hildale home — built by Heather's grandparents — they acquired through the United Effort Plan Trust.

In leggings and a colorfully patterned short-sleeved T-shirt, Natalie Draper walks home from Water Canyon High School in Hildale. Below, workmen construct a restroom at the increasingly popular Water Canyon trailhead, just two miles north of Hildale and near Zion National Park. Recreationists, including tour companies like Zion Adventure Company out of Springdale, are bringing more and more outsiders to the area.

Sarah Scoles is a freelance writer living in Denver, Colorado. Her first book, *Making Contact*, comes out in July.

This story was funded with reader donations to the High Country News Research Fund.

Art Blackwell did. He went to tune a neighbor's piano and heard his kids' voices drifting through the slats in the fence. He couldn't see them, or speak to them. But he stood outside their fortress for an hour, just listening.

Hoole first has to find the kids and figure out how to contact them; then he has to find the appropriate law enforcement and serve the legal papers. "And then we swoop in and try to get those kids," he says. Invariably, though, church members try to stop them.

When Black was ready, he asked the Mohave County Sheriff's Department and sympathetic local friends to accompany him to his old house. His knock went unanswered, so he walked in, thinking no one was home. But he found his daughters standing in the kitchen. They froze, silent and still and white.

Out of an interior room walked his son, their caretaker. When Black told him he was here to get the girls, Sheldon Jr. produced the church's custody papers. The sheriff pointed out that a parent had a legal right to his children.

Black's children, though, no longer wanted him. They had been told that he was evil, an apostate from their faith. "Look who's breaking up the family now," his son said.

"I started to feel wicked," confesses Black. He wondered, "Am I hurting these people who have been so programmed against us?"

He put the girls in his car and drove away anyway.

THE CHURCH KEEPS AN EMOTIONAL CLAMP on the excommunicated — both disaffected ones like Black and those who are still enmeshed in the faith. But after the revelation of their leaders' criminal practices, after they talk to other apostates, after they see the outside world isn't so bad, most of them start to see the Jeffses in a new light. The online world is perhaps the best abettor of apostasy.

"If they get on the internet, for example, which is a no-no, and start looking at what's happening," says Hoole, "then they start having the pieces of the puzzle come together, and a lot of them will realize, 'My heavens, I've left my children in that mess, and they're being trained by somebody else for who knows what, and I've got to get them back.' "

They come to understand that their children belong with them and that the custody they supposedly signed away is actually still theirs.

"Once you start reading, it's like a flood," Art Barlow told me in June, as he paused his landscaping work at the town's new dentist's office. A year before, newly exiled, he still believed it all. Then, click by click, his faith washed away. He had returned to his Hildale house six months earlier, hoping to make it a nice place for the two youngest of his 17 children, who are still minors. He plans to go find them soon.

But the church's continuing influence strains relations between parents and returned children. Parents feel like they are saving their kids from labor, forced marriage and mind control. Unfortunately, they often find out that their children don't *want* to be saved.

WHEN BLACK BROUGHT THE KIDS HOME, things went smoothly for a little while. Then his daughters started getting phone calls from the FLDS. One daughter said they'd been told to fight for their rights. The other said, "Just fight."

The girls put a picture of Warren Jeffs on the wall, "I LOVE YOU" scrawled on it. Black worried they would try to convert his and Cindy's kids — who now understood that movies weren't magic and who wore the kind of clothes that had once scandalized them — to "Warrenism."

The new girls started pulling increasingly malicious pranks — raisins in their father's bed, cat food in his shoes.

"All they wanted was to come back here," he says, referring to Short Creek. "I just got so tired."

One morning, Black and Cindy woke up to find that the girls were gone.

The FBI soon tracked them down. They had returned to Sheldon Jr.'s house, so Black decided to try to take them back — again.

But after the FLDS got word of Black's plans, they had his daughters call Angela, the girls' sent-away mother, to say they had nowhere to stay. Soon, the Arizona police called to let Black know the children were in Angela's custody. She had just as much right to them as he did — unless he was willing to press charges against a family member.

"This is somebody you've been married to for 30 years, and now she's your enemy," Black says. He adds that Lyle Jeffs, not Angela, is the person he'd like to charge with a crime.

So Black let the girls go. And after he retreated, the FLDS snatched the girls from Angela and sent them back to Hildale. Black is now there, too, and he moved from his shop back into his house in December 2016. He knows his daughters are nearby, but no matter how close he gets, there is always something between them — a fence, a relative, the God he gave them.

Deprogramming a child is possible. It just takes time. Adults — with their fully developed frontal lobes — often take years to slide from sincere belief to doubt. So it makes sense that the children who have grown up with the Jeffses' authority, all the edicts and absolutes, who have never known anything but this town, would have trouble adapting to life in the outside world.

Give them time, and let them get used to freedom, says former FLDS member Lawrence Barlow. In the two years between when his daughters moved back in with him and when we spoke last summer, the kids have settled in to their new world.

They still wear their prairie dresses to school, but that's fine, says Barlow. He wants them to feel how they feel, to do what they want, to make their own choices. He wants to give them what their religion could not.

"They've found out it's OK for them to just be," he says. □

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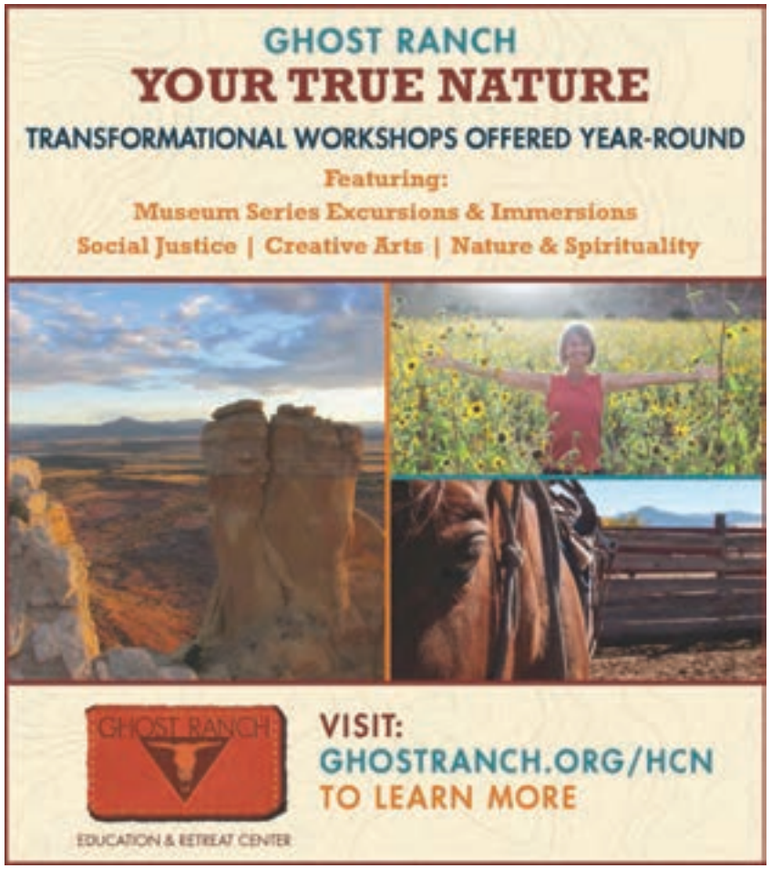

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Novels of Montana history – *I've Seen Dry* and *The Shallows of Jabbok* by Kent Elliott. Details at: www.wheatgrasspublishing.com.

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The sun rises over Cedar Mesa and Valley of the Gods in Bears Ears National Monument.
BOB WICK/BLM

Help for Bears Ears?

OPINION BY
JIM STILES

I'm not a native-born Utahn, but I came here 40 years ago and made it my home. One of my first views of this remarkable land was of the Bears Ears area of southern Utah. It is sacred territory to me.

Had I not lived here all these decades but simply viewed the recent debate over the Bears Ears from afar, I'd probably be an enthusiastic supporter of its recent designation as a national monument. But I've been involved in these kinds of issues for decades, and the preservation of the Bears Ears is far more complicated than the monument's architects will admit. I think there is a better way to protect the Bears Ears than its new monument designation, and a more honest way to still empower the Native Americans who deserve an integral role in protecting this landscape's future.

Environmentalists declared that former President Barack Obama's proclamation would safeguard the area's 100,000 archaeological sites, via the 1906 Antiquities Act. But that implies that those sites were previously unprotected. All federal lands are already safeguarded by the Archaeological Resources Protection Act (ARPA) of 1979, which specifically addresses inadequacies in the original Antiquities Act legislation.

Environmentalists also warned that energy development — even on the Bears Ears — was imminent and inevitable without monument designation. Yet even the Bureau of Land Management's studies note a low potential for commercially recoverable oil beneath the monument. There are indeed 2,000-plus active wells in San Juan County, but none of them currently lie under Bears Ears. Energy potential is distributed unevenly. The overwhelming number of producing wells can be found outside the monument, where production has continued for 60 years.

Finally, environmentalists ballyhooed that "the proclamation elevates the voices of the Native Americans." Leaders of Diné Bikeyah had expected that they "would actively co-manage these lands side-by-side with federal agencies." But the proclamation reveals otherwise. It is the secretaries of Agriculture and Interior who "shall manage the monument through the U.S. Forest Service and the Bureau of Land Management." A Bears Ears Commission "will provide guidance and recommendations on the development and implementation of management plans." Another advisory panel.

The government added, "The (BLM) and Forest Service will retain ultimate authority over the monument." It's impossible to recount all the broken promises made by the U.S. government to Native Americans — going back centuries — but this sounds like yet another deception. Native Americans have no legal authority to implement their preferences for the monument's management.

The unspoken threat to the monument, of course, is the impacts caused by developed tourism. Environmental organizations like the Southern Utah Wilderness Association and the Grand Canyon Trust haven't dealt with this threat in two decades, although in 1998, the Trust's Bill Hedden warned, "Everywhere we looked, natural resource professionals agreed that industrial-strength recreation holds more potential to disrupt natural processes on a broad scale than just about anything else."

Runaway tourism was once a serious concern to environmentalists, but the issue was dropped to pursue alliances with the recreation industry. The tourism nightmare that now defines Moab still doesn't raise the ire of Utah environmentalists. Last year, when overflow crowds lined the highway and forced Arches National Park to close its entrance station, most green groups failed to comment.

SUWA recently asked its members: "Which threats to the Red Rock worry you the most? The choices were "Utah's land grab?" "Mining and drilling?" "Off-road vehicle abuse?" "Road proliferation?" The impacts from industrial tourism were not even listed as an option.

Do the remaining wildlands of southeast Utah deserve protection? Yes, absolutely. Are there other options to do the job besides the creation of a national monument? Consider these:

- Strictly enforce the archaeological protection law. A monument might generate more funding for increased staff, but only if it experiences massive increases in visitation and damage. So instead of building extravagant visitor centers and costly "improvements," create an "ARPA Protection Unit" of trained rangers from the Inter-Tribal Coalition, the BLM and Forest Service. The new rangers could target the areas most vulnerable to vandalism and protect Native American practices and rituals.
- Seek honest and enforceable ways to empower Native Americans. Toothless advisory panels are an insult.
- Withdraw all oil and gas leases that are commercially marginal within the monument boundaries. End a pointless argument.
- Demand that Utah environmentalists sever their ties to the relentless recreation economy. Tourism can be as devastating to natural values as energy development, and both must be scrutinized. Be consistent.

Unless environmentalists address these issues, we may someday discover — too late — that monument designation has helped to destroy the very qualities its supporters want to protect. Protecting the Bears Ears region is an absolute necessity. Turning it into a marketing tool to be packaged and sold is a sacrilege. Bear Ears deserves better.

Jim Stiles has published The Zephyr *magazine in Utah since 1989.*

WEB EXTRA
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Ticking bombs: Two new novels explore stifled women in the nuclear West

The Atomic Weight of Love
Elizabeth J. Church
368 pages, softcover: $15.95.
Algonquin Books, 2017.

Dozens of nonfiction books have delved into the history of nuclear facilities in the West and the Manhattan Project, detailing the Department of War's secret acquisition of land in Los Alamos, the rapid emigration of eminent scientists, and their feverish work to build the atomic bomb. But when it comes to the human drama behind the science, several writers have turned to fiction, and women's perspectives, to tell the story. TaraShea Nesbit's poised 2014 novel *The Wives of Los Alamos* delivers the details of life in the top-secret town through the incantatory collective first-person voice of the scientists' wives. In Nora Gallagher's elegant 2007 novel *Changing Light*, set in 1945 Los Alamos, a female painter befriends a scientist injured in a radiation accident who can't disclose any details of his work.

Now, Elizabeth J. Church's debut novel, *The Atomic Weight of Love* draws on her personal history to spin a compelling tale of an intelligent woman whose dreams are deferred in service to her husband's nuclear work. Church's father was a research chemist recruited to the Manhattan Project. Her mother, a biologist, followed him to Los Alamos, where Church grew up.

Church tells the story of Meridian Wallace, an ambitious young woman who aims to earn her Ph.D. in ornithology, but is derailed by love and its consequences. Meridian earns a scholarship to the University of Chicago in 1941, and soon attracts Alden Whetstone, a physics professor whom she describes as "a wholly intellectual creature barely cognizant of the physical world and its requirements. I felt myself longing to soar along with him in the realm of pure ideas, of complete and total academic isolation." They marry before he relocates to Los Alamos for the war effort; she eventually follows, and her plans to pursue a Ph.D. at Cornell crumble.

Church tracks Meridian for decades, as Alden turns into a controlling, antisocial fussbudget and she languishes, neglected and unfulfilled, studying the local crow population in a desultory way. Meridian struggles toward self-actualization, gradually at first and then in a headlong rush when in 1970 she meets a handsome Vietnam vet, fresh from the commune with long hair and love beads. *The Atomic Weight of Love* is a mid-life coming-of-age tale, set in an era when women had to wait a long time before they could put themselves first, if ever.

The Longest Night, the propulsive, nuanced debut by Andria Williams, similarly feels like the book this author was born to write. Williams' husband is an active-duty Naval officer, currently stationed in Colorado, and she conveys the interpersonal tensions of life in the military, both on the base and in town, with apt detail. The story begins in 1959, when Paul and Nat Collier move with their two young daughters to Idaho Falls, where Paul has been stationed to work on a clunky nuclear reactor. Even if readers know that this was the site in 1961 of America's only fatal nuclear reactor meltdown, the suspense of *The Longest Night* only intensifies as it creeps toward that event.

Paul observes shoddy maintenance and incompetent leadership at the reactor but keeps Nat in the dark so as not to worry her: white lies that soon become

A man checks Highway 20 in Idaho for contamination the morning after a nuclear reactor accident that killed three men in 1961. IDAHO NATIONAL ENGINEERING AND ENVIRONMENTAL LABORATORY

a symptom of their fraying marriage. Stress builds as Paul clashes with his lecherous and drunken superior officer.

Meanwhile, Nat feels marooned without a car and judged by gossipy military wives in a town where "someone's garbage can lid laying to the side and not securely clamped on the can: That was an event." When Paul is deployed to Antarctica as a consequence of an impetuous mistake, Nat welcomes the friendship of a courteous local car repairman.

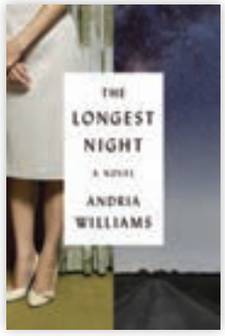
Williams has a knack for crafting taut scenes that increase tension, reveal character and entertain: the reckless dive that displays a young mother's spirit and the strains in her marriage, the disastrous dinner party hosted by "one of those women … whose calculating mind was always at work on others of her sex, detecting their weaknesses like a mine-sniffing German shepherd," and the small-town diner where there's a "dinginess to the place, grime in every crevice, a sense of not quite caring."

Williams writes with rich psychological insight into all her characters, who evolve and surprise, even the beastliest or youngest. Nat's children, like Shakespeare's fools, regularly pipe up with information that reveals the truth adults are trained to conceal.

These two novels focus on the kind of capable women drawn to the West by nuclear installations, only to find their potential squelched due to the mid-20th century's primary focus on the work of men. As these women simmer and yearn and the '60s and '70s dawn, we see their personal lives become as volatile as reactors.

You could fill a shelf with books set in the nuclear West. These two debut novels prove that the formidable power of nuclear facilities, the flawed humans who run them, and questions about the morality of these experiments continue to make for gripping drama.

BY JENNY SHANK



The Longest Night
Andria Williams
383 pages,
hardcover: $27.00
Random House, 2016.

When we can't see the stars

ESSAY BY ZACHARIAH BRYAN

One of my earliest memories is of the stars.

I don't remember the details. I was 4. My two sisters and I were swaddled in blankets and huddled together on the hood of my dad's old brown Chevy Citation. He was sitting in a camping chair smoking cigarettes, back when he still smoked, back when he still sported a solo 'stache. The only light I can recall is from the glowing embers at the end of the butt.

That, and the stars. More stars than I can remember ever seeing, though perhaps that's because I was only 4, and everything seemed bigger. We had gone out to watch a meteor shower — maybe the Geminids, given how cold it was, though it just as easily could have been the Perseids on a chilly western Washington summer night. I'm not sure where we were, though I like to imagine we were parked on top of a grassy hill, or out in the middle of a field.

Truthfully, I'm not even sure if this is a memory, or a dream that my 4-year-old self thought was real. I certainly don't remember ever seeing so many stars again. Western Washington — especially along the heavily populated I-5 strip, where I spent most of my life — lacks good conditions for stargazing. Too many lights, too many clouds, too many trees, too low an elevation. I did not see the Milky Way until I was 25, driving through the deserts of the American Southwest.

I'm not alone. Eighty percent of Americans and a third of people around the world can no longer see the Milky Way, according to a global atlas of light pollution released in June by the National Oceanic and Atmospheric Administration and Italy's Light Pollution Science and Technology Institute. If you look at the atlas, you can see that western Washington is a big blob of red and yellow, a concentrated source of light pollution. And as the region's population continues to soar, and as people move to the suburbs and exurbs to escape the booming Seattle real estate market, that blob is likely to grow.

It's hard to quantify the importance of dark skies and of stargazing. An astronomer at Kitt Peak Observatory near Tucson, Arizona, tried to explain it to me this past summer. He says there should be a public right to view the night sky, that the Milky Way has been a cultural, spiritual, even technological part of civilization for millennia. There's something real and yet hard to describe to be gained from looking at a truly dark sky uninhibited by light pollution — perhaps an essential piece of humanity. Who knows what exactly? Not me. Not my dad. Not even the astronomer I spoke to, who had dedicated his life to the subject. And not even Kermit the Frog, who sang: "What's so amazing / That keeps us stargazing / And what do we think we might see?" Yet we still keep looking up.

After my dad met my stepmom, they dragged her two kids and the three of us out to Graham, Washington, where we lived in a split-level house on a couple of acres off Mountain Highway, on the way to Mount Rainier National Park. It was the exurbs, a place that was fairly removed from society — a 15-minute drive from the grocery store, nearly an hour from the closest city. I like to describe it as the intersection of nowhere, the exact outer edge of four different towns.

When we were younger, my dad spent a lot of time outside, on the deck or standing in the middle of the field, with the glow of his cigarette in the pitch black his only giveaway. Sometimes he would take his telescope to check out planetary conjunctions. Sometimes he would just watch the bats whip around overhead, hunting for the mosquitos that bred in the puddles of our driveway. Every now

The Milky Way arcs across the sky over Lava Mountain in the Ansel Adams Wilderness of California. GRANT KAYE

I'm not even sure if this is a memory, or a dream that my 4-year-old self thought was real. I certainly don't remember ever seeing so many stars again.

and then, he would boot up Windows '98 and modem into AOL — *bbeeerrrssskzkz-zkzk-brrzk* — to find out when the International Space Station was passing overhead. Then he would run out to the deck, first pausing to turn off the harsh, bright, humming porch light. He'd sit down out there, light a cigarette, take a sip from a glass of rum and Coke, and keep his eyes on the sky. Sometimes I would join him. He knew exactly from what direction the ISS would come, and when it would show up over the trees. As that glowing dot floated over, he would tell me to wave. He liked to picture what it would be like to be up there, looking down.

It's not as if my dad, the avid *X-Files* and *Star Trek* fan, could see a lot of stars in Graham. Even out at the intersection of nowhere, the night sky was still dulled by light pollution from Tacoma. But maybe he could see just enough stars to matter. I can't pretend to know what he was out there for, whether he was thinking about something deep, like all of the possibilities of the universe, or simply trying to get away from us five kids and his own growing list of problems. Maybe he just needed a break from the noise of civilization and a quiet moment to dream again.

My dad doesn't smoke anymore; the heart attack changed that. He doesn't drink rum-and-Cokes, either, or at least he tries not to, after a dangerous tango with depression and alcoholism. Both of those are probably good life decisions, but they've had an unfortunate side effect: He no longer has an excuse to go out to the deck or the field. He doesn't look up anymore. Doesn't see the stars.

Whenever I look at the night sky, I think of my dad, and I wish he were there to see it with me. Like when I climbed up Mount Maude in Washington's Entiat Range one hot sweaty summer and wrapped myself up in a wool blanket on a rocky precipice, lightning threatening in the distance but a canvas studded with countless stars above. Or when I was in Alaska, lying on a frozen lake in the tundra, with the green and red ribbons of the Northern Lights unfurling over me. Or when I left my tent to relieve myself on the hillside at Hualapai Mountain Park in Arizona and accidentally gazed upon the Milky Way, which dwarfed the city of Kingman, the desert, and me. In those moments, I often think: My dad would like this. And I imagine him sitting by me, the smell of smoke, the glowing orange embers.

Maybe one day my dad will join me, without the cigarettes, of course. Back in Graham, where he still lives, there's a model rocket standing on a table in the garage. It's almost done, he says; he just needs to paint it and put on a "few finishing touches." It's been "almost done" for several months, though, just sitting there, untouched. I once tried to force the issue by telling him he needed to put those "finishing touches" on it by the time I moved to Montana, so I could see it take off. Nothing happened. But one of these days, I imagine, I hope, he will get inspired and he will finish it. And as it takes off toward the clouds, toward the upper parts of the atmosphere, he will remember how to dream again. He will look up and see the stars and the satellites and the moon and the meteor showers and the Aurora Borealis and the Milky Way, and he will see that little glowing dot full of humans inside of it move across the sky, and he will wave. □

Zachariah Bryan is a freelance reporter and student in the University of Montana's graduate program in environmental science and natural resource journalism. Previously, he worked the community and business beats for newspapers in Washington and Alaska.

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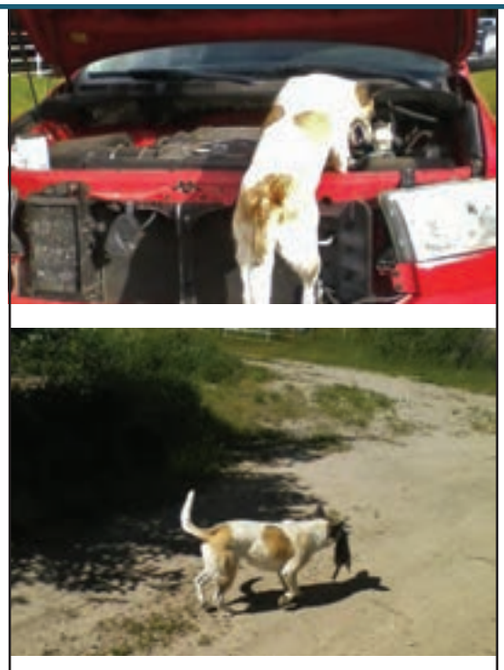
HEARD AROUND THE WEST | BY BETSY MARSTON

UTAH

Andy Lewis may be an internationally known daredevil who can climb, slackline or BASE jump from almost any of southern Utah's twisted redrock spires, but at home in Moab, his approach to the outdoors has made him some enemies. Nicknamed "Sketchy Andy," he's never been shy about promoting his stunts, and over the years the 27-year-old has gained some 6,000 followers on his Facebook page, as well as corporate sponsors, reports the *Canyon Country Zephyr*. But recently, Lewis came under fire for a video he and some friends made last Christmas at Fisher Towers near Moab. The video, shared by *Climbing Magazine* and several other sites, showed Lewis and some pals, a group known as the "Moab Monkeys," stringing Christmas lights on a gnarled and fragile spire known as "Ancient Art." To Moab climber Kiley Miller, it was anything but entertaining: "In a sense, it's like desecration," she said. "It's just utter disregard for the area and for the tower itself." Other locals charged that Lewis and his crew left trash on public land managed by the Bureau of Land Management and fixed ropes and anchor bolts on rock, some of which caused a "climber to rappel off the wrong side of a tower, requiring a nighttime rescue." To put it mildly, Lewis did not take kindly to criticism from the local climbing community. In Facebook posts, where he also mocked fat people and tourists who visit the West in recreational vehicles, Lewis protested that he was one of the few people who knew how to use the outdoors "in style." "Go (expletive) yourselves you self-righteous (expletives)!" was one of his milder ripostes to three women climbers who'd called him out. As for Christmas 2017, Sketchy Andy plans to go bigger and hang lights over another tower on BLM land, and "he's inviting anyone, including his critics, to help," reports *Moabsunnews.com*.

THE WEST

In the Department of Surprising Encounters, a woman in northern Idaho told police she crashed her car into a deer because she was distracted by the sight of a sasquatch in her rearview mirror. She said the creature, aka "Bigfoot," was chasing the deer, which escaped by running right in front of her. The *Moscow-Pullman Daily News* reports that police made no mention of Bigfoot in their description of the accident.



WYOMING **A rural mechanic gets to the bottom of truck repair.** MARIA KATHERMAN

And on a commuter flight between Aniak in southwest Alaska and Anchorage, a "pale" 4-or-5-foot-long snake got loose and, not surprisingly, "caused a commotion," reports the Associated Press. Snakes are prohibited on airplanes, including so-called "emotional support animals."

WYOMING

The braggadocio of poachers seems boundless, and that can be a good thing: The more publicly they revel in their shooting prowess, the more chance that somebody will flag their illegal exploits. In Wyoming, a man was watching a TV show called *Hunting in the Sticks* when he noticed something off-kilter: The Wyoming area where two men from Bedford, Kentucky, boasted they'd shot two bull elk failed to match up with the area described by their licenses, reports KTVQ.com. Following that tip, the Wyoming Game and Fish Department began "an exhaustive search for the kill sites" near Cow Creek Buttes and were finally able to build a solid case against Ricky J. Mills, 37, and Jimmy G. Duncan, 25. The braggarts, who'd poached the bull elk in a highly coveted area that's open to hunters only every other year, got the book thrown at them. Sentences included over $30,000 in fines and loss of hunting privileges for 15 years. The men also lost their now-taxidermied elk, which were confiscated by the Wyoming Game and Fish Department.

ARIZONA

The infamous "Tent City," a 24-year-old outdoor jail established in Phoenix by former Sheriff Joe Arpaio, will close its flaps in a couple of months, reports *The New York Times*. This is the place where inmates, forced to wear striped jumpsuits and pink underwear and socks, were served two vegetarian meals a day — all part of Arpaio's publicity campaign as "America's Toughest Sheriff." But Arpaio got bogged down by several investigations charging that his office deliberately engaged in racial profiling, and last year he lost his re-election bid to Paul Penzone, who wanted no part of the jail. In announcing this April that the 70 Army-surplus tents would be coming down, Penzone made it clear that the jail "goes against everything I stand for." Yet a citizens' group that studied the jail's effectiveness made a surprising discovery: Although prison guards wearing bulletproof vests wilted in the over-100-degree heat, inmates still found the outdoors preferable to living in a 6-by-8-foot cell. As for Arpaio, he'd like the tents, originally manufactured for the Korean War, to have yet another life, this one on our border with Mexico — housing "all the illegals" that President Donald Trump hopes to jail.

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.

> "Generally, the subspecies ***Homo Americanus*** **is afraid of the wild.** He is concerned about the effects it might have on his health."

Christopher Ketcham, in his essay, "People are grizzly food — and that's OK," from Writers on the Range, hcn.org/wotr