PERMIAN DRILLING | STRAVA FOR FIREFIGHTERS | PYGMY RABBITS

High Country News

For people who care about the West

June 10, 2019 | $5 | Vol. 51 No. 10 | www.hcn.org

'None of this happened the way you think it did'

For years, the clients of a Colorado funeral home kept their loved ones' cremated remains. Then the FBI called.

By Elena Saavedra Buckley

CONTENTS

Terri Reid poses with the tackle box in which she planned to keep the ashes of her dead husband. Reid now believes her husband's body was among the hundreds sold to body brokers by Sunset Mesa Funeral Directors in western Colorado.
LUNA ANNA ARCHEY/HIGH COUNTRY NEWS

On the cover

Connie Hanson holds a handful of what Sunset Mesa Funeral Directors told her were the cremated remains of her son, Frederick "Rick" Hanson. Connie Hanson believes it's burnt trash, including wires and battery casings. The FBI is investigating.
LUNA ANNA ARCHEY/ HIGH COUNTRY NEWS

Complete access to subscriber-only content

HCN's website
hcn.org

Digital edition
hcne.ws/digi-5110

Follow us
@highcountrynews

Editor's note

On rural isolation and grief

Westerners, according to the National Funeral Directors Association, cremate our dead and scatter their ashes at higher rates than the rest of the country. Perhaps the public lands beckon us, with wide-open landscapes fit for eternal enjoyment and peace. It's not surprising that we desire a return to such havens as we confront the wilderness of death. Cliff-sided, mountain-meadowed goodbyes can help us move on from those we've lost.

But how might we react if a loved one's remains met an unintended, even disturbing, fate? How might we process death then?

In Montrose, Colorado, a town of 19,000 on the Western Slope, the now-shuttered Sunset Mesa Funeral Directors allegedly sold, without consent, the bodies of hundreds of its clients' loved ones to plastination companies and other unknown buyers. And it allegedly gave its clients ashes mixed with the remains of other human beings and various filler substances. An FBI investigation is ongoing, and no one has yet been charged.

But, as editorial fellow Elena Saavedra Buckley writes, the mere thought that this might have happened has had a dramatic impact on the rural people who trusted the funeral home. Saavedra Buckley follows Debbie Schum on her journey to accept the death of her best friend, providing an intimate look at the complexities of grief and what happens when the normal process of mourning is interrupted.

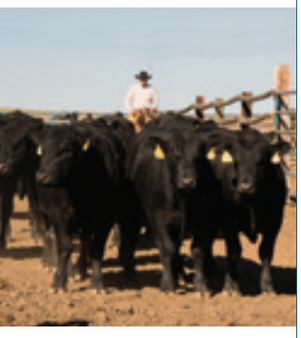
The story touches on universal topics — death, life and friendship — as well as a more specific aspect of rural life. The Sunset Mesa Funeral Home was one of the only mortuaries available to the people of Montrose and its orbit of widely dispersed communities. Isolation — and the lack of state regulation of the mortuary industry — made them particularly vulnerable to potential abuse. But, as Saavedra Buckley shows, it has also drawn them closer as a group; they have connected over social media to share information and emotional pain.

This edition offers another view of community strength in contributor Tay Wiles' story of the families grappling with an oil and gas boom in Carlsbad, New Mexico. There, residents are also experiencing shared pain and disorientation as they cope with mysterious illnesses that they suspect are linked to the new realities of life in the Permian Basin.

Rural Westerners struggling for justice and recognition might take heart from the small town of Cordova, Alaska, where locals are fighting for control over its waters as the U.S. military pushes to conduct Arctic training exercises. A majority of Cordova's 2,000 residents rely on the salmon industry, which many say is threatened by the pollution that military expansion might bring to its waterways and marine life.

Through all these stories, a larger lesson emerges: In the West's rural communities, there's strength in the social fabric that we create together — despite the multitude of challenges that the region's underdogs continually face.

—Paige Blankenbuehler, assistant editor



In Wyoming, a rancher oversees operations at Lucky 7 Angus Ranch. COURTESY OF LUCKY 7 ANGUS RANCH

THE LATEST

Backstory

For years, **ranchers have wrestled with "The Big Four" meatpackers — JBS, Tyson, Cargill and National Beef**. Ranchers and organizations like the Ranchers-Cattlemen Action Legal Fund say the meatpackers that slaughter and process beef treat independent stockgrowers like employees by using short-term contracts and other forms of economic pressure, making it increasingly hard to get a fair price for cattle ("Cattlemen struggle against giant meatpackers and economic squeezes," *HCN*, 3/21/11).

Followup

In late April, the **Ranchers-Cattlemen Action Legal Fund United Stockgrowers of America led a group of plaintiffs in filing a lawsuit** in Illinois **against the Big Four and other meatpackers**, alleging that the companies conspired to depress cattle prices for their own gain. As *The New Food Economy* wrote, "The point, according to the suit, was to make ranchers desperate enough to take greatly reduced prices for their animals, even during an era of rising beef prices."

ELENA SAAVEDRA BUCKLEY

How do tribal nations' treaties figure into climate change?

Over the past several decades, tribal nations have used treaty rights to score major victories for land and water rights, as well as stall or defeat coal terminals and gas pipelines. In the U.S., there is no constitutionally protected right to the environment. Treaty rights, however, oblige the United States to provide certain environmental protections for tribal nations. But they've never been applied directly to climate change.

Can tribal nations successfully sue the federal government over climate change-related treaty violations? And if so, what would that look like?

Indian law and climate law experts across the country say that any treaty rights case must use the actual text within a treaty. Climate change applications are possible, however, given the right evidence. One example is the right to fish "at usual and accustomed grounds." That phrase appears in at least seven treaties with dozens of Pacific Northwest tribes. What if, due to species shifting from climate change or erosion from rising waters, that right could no longer be exercised? Species shift is a major side effect of the changing climate; one study shows that salmon moving north to colder waters means First Nations fisheries could decline by almost 50% by 2050.

Robert Anderson, director of the Native American Law Center at the University of Washington and a member of the Bois Forte Band of Ojibwe, says any case would face difficulties with achieving an enforceable action. But "if you can use these cases, whether they're enforceable or not, to shift public opinion, that's really where the action is." ANNA V. SMITH *Read more online:* hcne.ws/treaty-cc

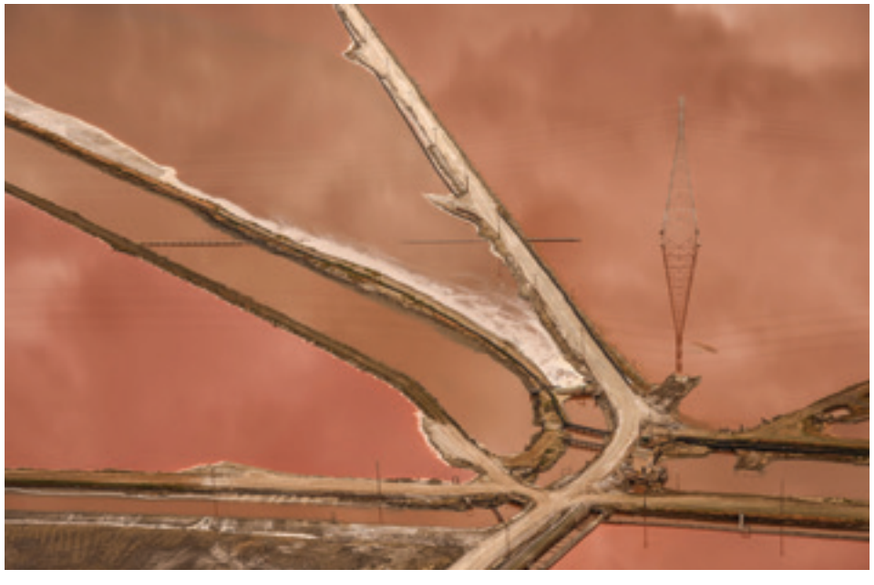
Mitch Zackuse pulls geoduck from a net in Tulalip Bay, Washington. IAN TERRY

> "This is a story of sacrifice, of suffering, of tragedy, but also of heroism. This is a heroic endeavor and accomplishment. They didn't brag about it, but I feel like I can brag for them today."
>
> —Stanford University historian Gordon Chang, talking about his new book, *Ghosts of Gold Mountain*, which is the most comprehensive account to date of the lives of the Chinese workers who built the Western section of the Transcontinental Railroad.
>
> NICK BOWLIN
> *Read more online:* hcne.ws/railroad

5 reasons to keep geotagging

In June 2018, the Center for Outdoor Ethics issued its first guidance on social media, urging people to "avoid tagging (or geotagging) specific locations. Instead, tag a general location such as a state or region, if any at all." We disagree. Public lands are for everyone. So here are five reasons why you should keep geotagging. (For explanations behind the directives, visit the full story online hcne.ws/geotag.)

1. Gatekeeping is racist
2. Let's leave purity tests behind in 2018
3. The myth of the pristine wilderness is harmful
4. There are better ways to protect public lands from overuse
5. Social media makes the outdoors more diverse and more inclusive DANIELLE WILLIAMS, MELANIN BASE CAMP



Salt flats in San Francisco, California. AYA OKAWA

Photos

A captivating flux

The countless alkaline lakes in the American West, formed millions of years ago by torrential rains, are quickly shrinking as snowpack runoff lessens and water is diverted to agriculture. Photographer Aya Okawa captured the colors and shapes the water leaves behind — precarious, salty remnants of the transforming landscapes.

AYA OKAWA
Read more online: hcne.ws/alkaline

Trending

Treaty rights prevail in Supreme Court

In late May, the U.S. Supreme Court upheld a Crow tribal member's right to hunt an elk off-season and off-reservation, saying the tribe's 1868 Treaty outweighed the statehood of Wyoming, where the kill happened.

ELENA SAAVEDRA BUCKLEY

You say

MATT WEBER: "For those that are saying this will lead to unregulated activities, keep in mind that treaty rights have been affirmed in other areas of the country. Where I grew up, in Wisconsin, the Ojibwe tribes had their treaty rights reaffirmed by the courts in the 1980s. ... That led to the formation of the Great Lakes Indian Fish and Wildlife Commission (GLIFWC). ... In my opinion, GLIFWC has been a net positive for the area's natural resources."

JEFF GRUBBS: "Complicated issue. When Wyoming became a sovereign state, it's hard to argue that they are bound by agreements they were not party to unless the agreement to join the United States explicitly said that they had to. In this particular case, I don't think Wyoming had a case."

LINDA ANDERSON: "It's not left or right. The treaty language is pretty clear. The court is way more political than I would like it to be, but some decisions are based on law, not politics."

Read more online: hcne.ws/herrera and facebook.com/highcountrynews

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

MAYBE A VISITORS CENTER THAT KEEPS OUT VISITORS?

"Bears Ears' guerilla visitor center" (*HCN*, 5/13/19) left me puzzled. Is it meant to be a celebration or a lament? Monuments and parks attract crowds. Crowds bring problems and damage the very things that are intended to be "preserved." An official visitors center won't deter those crowds, nor will it prevent the damage they will cause. Perhaps monument designation "saved" this landscape from future degradation due to potential coal and uranium mining, but it certainly instigated immediate damage from the many visitors who would not have come in such numbers absent the monument. Both scenarios carry potential local economic benefit, and both clearly result in some environmental degradation. Where is the calculus that weighed and compared these two threats to this place? Did President Obama make that calculation? Did the Inter-Tribal Coalition? Has anyone?

David L. Rasmussen
Salt Lake City, Utah

SUPPORTING THE SANTUARIO

In 1993, eight of us from Colorado first walked in the Chimayó Good Friday Pilgrimage, and we've come every year since.

Over the years, we've seen the Santuario and the area around it changed by institutional and commercial interests eager to exploit the "Chimayó" brand. Currently, the developers are held in check by the whole Chimayó community — not just Raymond Bal. They are passionate about keeping Chimayó from becoming an American Lourdes, a process that would thoroughly destroy Chimayó's *spiritus loci*, its reason for being loved by tens of thousands as an important touchstone in their lives.

"Whose Santuario?" (*HCN*, 5/13/19) is well-written and sympathetic to those who oppose change driven by outside interests. Author Gustavo Arellano clearly loves Chimayó, but he seems resigned to it becoming unrecognizable and irrelevant. That needn't happen. The community has said "no," but it needs continuing moral support.

Yvonne and John Ashenhurst
Seattle, Washington

A DAM'S TRUE LEGACY

Thank you for "On the Road to 50: A grand beginning," (*HCN*, 5/13/19)

and your reporting on the artificially regulated Colorado River and the conundrum surrounding Grand Canyon's identity.

When the Marble Canyon Dam project was canceled, the real trade-off was the Navajo Generating Station and the Black Mesa Mine. These provided the power necessary to run the Central Arizona Project and delivered water to Phoenix. Massive transmission lines towered over homes on the Navajo Nation that lacked electricity. The mine fouled the land and sucked out precious groundwater. Social conflicts emerged, some of which were used by the federal government to deeply divide communities. The mine and power plant created economic dependencies that we now must deal with.

It is easy to be nostalgic over Glen Canyon, and I want it restored as much as anyone. However, we must realize the true legacy is a monster with tentacles that reach further than Glen Canyon's winding shoreline. Those tentacles are unraveling and will have socioeconomic and environmental consequences that persist long into the future.

Alicyn Gitlin
Flagstaff, Arizona

HCN GOES POST-STRUCTURALIST

As a longtime fan of *High Country News*, I have depended on *HCN*'s insightful and balanced journalism on Western U.S. issues for many years.

So I am surprised by "The Atomic Road Trip" (*HCN*, 5/13/19), in which everyone and every place is guilty of one awful thing or another. The authors' judgmental over-simplifications neglect a multitude of historical and contemporary complexities.

The two Ph.D. candidates seem romanced by deconstruction and post-structuralist criticism, somewhat tired academic techniques at this point. As co-chair of a graduate art school department for 24 years, I and my grad students also delved into critical theory and employed its useful strategies for locating power dynamics. However, post-structuralism is just one method, and, when swallowed whole, leads to the myopic litany of guilt that fills this article.

I hope this article was an isolated instance, and *HCN* will continue its solid interpretive journalism.

Katherine McCoy
Buena Vista, Colorado

MISSING THE MARK IN NEW MEXICO

I typically have a lot of respect for *HCN*'s journalism, but I think you missed the mark on the role tourism plays in New Mexico ("The Atomic Road Trip," 5/13/19). In a state that has traditionally relied on an extraction-based economy (which is, in fact, true destruction), tourism offers rural communities a chance to highlight the things that make a place unlike any other in the world. Authors LuLing Osofsky and Key MacFarlane are quick to degrade Roswell's kitschy alien stuff, but it's what makes Roswell different and is an economic driver for the town. It's no secret that New Mexico has very real problems, but tourism gives a glimmer of hope to everyday New Mexicans, especially those in rural communities.

More broadly, I get the authors' point, that the atrocities that were caused from the development of the atomic bomb and the horrific genocide committed by Oñate are there and still very raw. But I urge everyone to confront this head-on and learn from it. Yes, there are ghosts here, and we acknowledge them. But we've got to wake up to how it is now and what can be done to make it a better place today. So I urge everyone to road-trip through New Mexico and reflect on its stark beauty, wonderful people, and the history we can all learn from to inform a better future. It's actually a wonderful thing. Quite contrary to what these authors, and apparently *HCN,* would have you believe.

Bryce Turner
Santa Fe, New Mexico

High Country News

High Country News is a nonprofit 501(c)(3) independent media organization that covers the issues that define the American West. Its mission is to inform and inspire people to act on behalf of the region's diverse natural and human communities. (ISSN/0191/5657) is published bi-weekly, 22 times a year, by High Country News, 119 Grand Ave., Paonia, CO 81428. Periodicals, postage paid at Paonia, CO, and other post offices. POSTMASTER: Send address changes to High Country News, Box 1090, Paonia, CO 81428. Subscriptions to *HCN* are $37 a year, $47 for institutions:
800-905-1155 | hcn.org

printreleaf CERTIFIED
Printed on recycled paper.

A battle over military exercises

The small town of Cordova, Alaska, which depends on salmon fishing, is fighting for control of its waters

BY RYAN WICHELNS

The air in Cordova, Alaska, is an unlikely mix of fresh glacial air and diesel fuel fumes. On one side of the isolated town rise the Chugach Mountains; on the other, a worn-looking fleet of fishing boats float in Prince William Sound, a northern branch of the Gulf of Alaska. There are no roads in or out of Cordova, and more than half of its 2,000-plus residents depend on the salmon industry. But for two weeks this May, it seemed as though their way of life was under fire — literally.

While Cordova's fleet busily prepared for the summer fishing season, another armada borrowed the Gulf of Alaska, starting May 13. Since the Cold War, the U.S. military has periodically practiced cold-weather operations in Alaska's waters. But locals are worried about the impacts of the Arctic readiness exercises, including possible pollution and harm to marine life, especially since many of the details are unknown. With climate change already hammering the ecosystem, it's clear that the ocean is not a limitless supply of resources, raising questions about just how much the environment can take and who gets to say how it's used.

Joint training exercises have been held near Cordova nearly every other year since 1975. "Northern Edge," as the operation is now called, involves a massive force from all branches of the military. While many of the specifics are classified, ships and aircraft fire ammunition, train for submarine detection and evasion, and practice air combat, among other maneuvers. This year, the exercises featured about 10,000 servicemembers and 250 aircraft spread across the state, with a fleet of five warships in the Gulf of Alaska — a force roughly 50% larger than the 2017 event.

Carol Hoover, the executive director of the Eyak Preservation Council, a Cordova-based conservation organization, worries that chemical contamination, debris, sonar and other effects of the training will harm the ecosystem. Similar concerns inspired a 150-boat demonstration in Cordova's harbor and resolutions from more than a dozen Prince William Sound communities and tribes against the 2015 exercises. Ultimately, it comes down to one thing: the fish.

Salmon fisheries in the area have been dwindling in recent years. In 2018, the sockeye salmon catch fell nearly 67% compared to the average over the last decade, most likely owing to unusually warm sea temperatures. That's something Bert Lewis, a supervisor for the Alaska Department of Fish and Game's Central Region, said could happen more often in the future. "We're in a state of dynamic flux," he said. "There were lots of predictable patterns when it comes to the fisheries, but all those patterns have kind of fallen apart."

Hoover and others fear that Northern Edge further stresses the fish. Sonar's deadly effects on marine mammals, for example, are well documented, but its impacts on salmon are far less clear. The Navy's environmental assessment for the exercises concludes that fish are unlikely to have their hearing impacted by sonar, but Hoover and her team wonder whether particular frequencies could physically damage salmon. A study commissioned by the Navy in 2008 noted that specific sonar signals could increase death rates in some types of fish by resonating within their swim bladders. But the assessment makes no mention of the problem, and no research has been done to examine it.

And while large debris and contamination are an obvious concern, the harmful impacts of chemical changes — from explosives, aircraft chaff or other expendables — are another major unknown. According to Michael Stocker, the director of the nonprofit Ocean Conservation Research, salmon rely on water chemistry to navigate. But "we don't have any studies about how these salmon are being compromised by the chemicals," he said.

Master Sgt. Miguel Lara III, a planner for the Air Force, said the Navy's environmental assessment is thorough and was "developed using the best available science." He added that Northern Edge overlaps only minimally with established fisheries management areas, though Hoover and others argue that those areas don't include all salmon habitat. Still, Lara said, "Alaska is strategically important to the United States, both as a location to project military power into the Indo-Pacific and to ensure the United States is protected from external threats."

In a town that takes so much pride in its salmon, it's no wonder that locals are worried. "If the fishermen aren't doing well, the community suffers," said Bill Webber, a Cordova fisherman of 52 years. Webber, who came close to foreclosure when the *Exxon Valdez* oil spill ravaged local fisheries 30 years ago, doesn't want to risk another disaster. "Alaska is one of the last wild and sustainable, pure and clean ecosystems left on the planet which still has a good diversity of seafood resources that we harvest and feed the world with," he said. "Do we need to be exploding those bombs up here? I'd say no." □

Multiple defense agencies simulate a terrorist situation aboard a ferry in Cordova, Alaska.
CHIEF PETTY OFFICER MATTHEW SCHOFIELD/U.S. COAST GUARD

Ryan Wichelns is a Colorado-based outdoor adventure writer. @ryanclimbs

Living inside southeast New Mexico's oil boom

The science on health effects can't keep up with the drilling

BY TAY WILES

When Dee George was about 7 years old, his family moved to the outskirts of Carlsbad, New Mexico, where they bought an acre of land, set up a mobile home and planted mulberry trees. They had a clear view of the sunset, and birds flocked to the trees. George, now 53, still lives here with his wife, Penny Aucoin, and daughter Skyler.

Oil and gas development has existed for years in the Permian Basin, which stretches from southeastern New Mexico into Texas. But about five years ago, the boom landed on the George family's doorstep when Mack Energy started clearing a well pad in the field just across the road. In Carlsbad, wells can legally be drilled within 500 feet of homes. Outside city limits, where this family lives, the minimum is 300 feet. That well shook the family's home like an earthquake — literally and figuratively. "I always thought, 'This is a good thing,' " said Aucoin, noting the jobs and revenue drilling brought to the state's southeastern corner. "Until they moved in next door to me."

Fueled by high oil prices and advances in drilling techniques, the Permian Basin has become the nation's busiest oil field. Meanwhile, for people like George and Aucoin, life has become noisy, the once-quiet roads crowded and dangerous. The family has also suffered from enigmatic illnesses that might, or might not, be related to the boom; the science can't keep pace with the frenzied rate of drilling. The lack of information and options has the family reeling. Others I spoke to had similar experiences.

After the well pad went in, the drilling began, shaking the house day and night and keeping the couple, their teenage son (whose name they asked me to withhold) and daughter awake. The noise and vibrations made Skyler, who was four years old at the time, hold her ears and shake her head, until George and Aucoin put earmuffs on her.

That was only the beginning. More wells have popped up, clogging even the narrowest back roads with traffic. Accidents in Eddy County shot up by 70% — not including those with fatalities — between 2016 and 2018 alone, according to the sheriff's office. Once, when Aucoin's son was trying to turn onto the county road, with Skyler in the backseat, a truck crashed into his vehicle.

George and Aucoin now park their car directly between their house and the road, for safety. That way, if a speeding truck runs off the road, it will hit the parked car before it hits their bedroom wall. When oil field trucks started rumbling down the dirt road just south of their house, they kicked up rocks that flew like projectiles toward Skyler's trampoline. So they got rid of the trampoline. But there was no such easy fix for the constant dust and exhaust from the trucks, or for the family's persistent, unexplained ailments. Skyler contracted a dry cough that didn't go away, and the humidifiers the doctors recommended did not help.

Aucoin, 49, a former school bus driver now working toward a degree in social work, found herself plagued by piercing headaches of unknown origin. Her doctor tried half a dozen medications, but nothing has eased the pain. Blisters appeared on her face. She used to sit on the porch, waiting for Skyler's school bus; now she stays inside.

After the first well went in, Aucoin's son started experiencing gushing nosebleeds almost every day. They seemed to occur out of the blue, when he was doing the dishes or sitting in math class. A doctor recommended that his nose be chemically cauterized, which helped for a couple of days, but then the bleeding resumed. Now the boy lives mostly in Roswell, about 75 miles north of Carlsbad, where his nose doesn't bleed.

The combined weight of these maladies, Aucoin said, are "destroying us." In the past few years, new wells have appeared within sight of their home in every direction. From their house, I could see methane flares to the east and south. Through the lens of an infrared camera, I watched otherwise invisible emissions emanate like smoke from well infrastructure less than a mile away.

Research from the past 15 years in Pennsylvania, Colorado, Utah and California show that many people living near drill sites suffer similar symptoms. Still, a direct link has yet to be established. "Research is still trying to catch up to the industry," says Diane Garcia-Gonzales, a scientist at University of California-Los Angeles who specializes in air quality near drilling sites. Without sufficient data, it's impossible to know the cause of any particular family's symptoms.

Oil fields, however, provide the ingredients for a variety of illnesses. Along with oil, the rigs deliver methane, a potent greenhouse gas that is typically flared or vented directly into the

Dee George drives past an oil field near his home in Carlsbad, New Mexico. "We're literally surrounded," he says. "What can we do?"

JOEL ANGEL JUÁREZ FOR HIGH COUNTRY NEWS

air, though it can escape through leaks. In January, operators in the New Mexico portion of the Permian Basin flared or vented more than 1.9 billion cubic feet of methane and associated gases — enough to heat about 25,000 homes for a year.

Unless it builds up and explodes, methane is not a human health hazard. It is, however, accompanied by a slew of potentially dangerous substances, including benzene — a known carcinogen — toluene and other volatile organic compounds. One of the most acutely toxic substances that wells and equipment emit is hydrogen sulfide, or H_2S. Even at lower concentrations, it can cause headaches, nausea and other long-term effects if inhaled. At high concentrations, it kills almost instantly. It's just one of the hazards faced by oil and gas workers, or indeed anyone who gets too close to a leaky well.

Two years ago, George, a soft-spoken former welding teacher who now works for a nonprofit that supports people with mental and developmental disabilities, asked a worker from the nearby site about hydrogen sulfide. Don't worry about it, he was told. On the back of a tank, however, George noticed a "Caution H_2S" sign. That didn't necessarily mean the substance was present, but it was enough to worry him. Hydrogen sulfide smells like rotten eggs, and George and Aucoin say they notice that odor, or others, almost daily.

The lack of data hinders efforts to understand how the emissions and particulates are affecting residents. The state of New Mexico runs air-quality monitors in a handful of places, including Carlsbad. But Carlsbad's monitor is focused on ozone and does not track particulates, H_2S or volatile organic compounds.

The national political situation isn't helping. Obama-era regulations targeting methane emissions would have cut down on the venting, flaring, leaking and other emissions, but the Trump administration, driven by its "energy dominance" agenda, eviscerated them before they went into effect, calling them too burdensome.

Traditionally, New Mexico has taken a similarly lax approach to oil and gas; between 2009 and this year, the state had no authority to fine companies for spills. But with a Democratic sweep of top offices in 2018, that trend might change. In January, Democratic Gov. Michelle Lujan Grisham signed an executive order creating a statewide climate strategy and holding industry accountable for emissions that could warm the planet or harm human health. In April, the state partnered with the Environmental Protection Agency to conduct 98 air-quality inspections at drill sites across southeast New Mexico. That was significant, considering that New Mexico usually makes only about 140 inspections statewide each year. And after the new state land commissioner, Stephanie Garcia Richard, toured well sites with members of the national environmental nonprofit Earthworks, she concluded that oil and gas-related emissions pose "significant public health and safety issues for our communities." Nathalie Eddy of Earthworks said, "I'm really hopeful that it's the beginning of a new era."

State leaders have to walk a fine line with the industry, however. Revenue from oil and gas makes up a third of New Mexico's general fund. The industry also attracts workers from around the country; the population of Carlsbad has doubled since 2016 as a result. Last year, New Mexico produced a record 250 million barrels of oil, up 46% from 2017. Also that year, the U.S. became the world's top oil producer.

Aucoin personally owes a lot to oil and gas; her sister's family in North Dakota was able to buy a brand new doublewide by leasing land out for drilling, and they also purchased cars for Aucoin and her son. But both those cars have since been hit by oil trucks just a quarter-mile from her home. Aucoin's busted minivan sits in the backyard behind the chicken coop; she's been fighting for months to get the oil company to pay for a new vehicle.

One of the stranger things Aucoin and George have witnessed is birds falling out of the mulberry trees and sometimes straight out of the sky. During the worst of it, "I'd have to go out with a pair of gloves and trash bag and pick up birds every day for months," Aucoin said. The couple said an oil and gas company tested a deceased blackbird and concluded it had simply starved to death. (The company did not respond to requests for comment.) This April, two of the family's chickens died — a full bin of feed nearby. I called University of Montana ornithologist Bret Tobalske to ask if hydrogen sulfide or some other chemical from a well could be responsible. The stories didn't surprise him at all. "Birds have a very efficient (respiratory) system and high metabolic rate that might make them more susceptible" to toxins in the air, he said. "That's why we had things like canaries in the coal mine. Birds would drop early as a warning system." □

Penny Aucoin, left, and her husband, Dee George, hold hands as they pray with their family at home in Carlsbad, New Mexico. Their home is surrounded by oil rigs, and most of the family members say they have suffered health impacts as a result.

Skyler Aucoin, 10, walks past a minivan that was hit by an oil truck near her home in Carlsbad, New Mexico. Two of the family's vehicles have been hit by oil trucks; Skyler was a passenger in one of them.
JOEL ANGEL JUÁREZ

Tay Wiles is a correspondent for *High Country News* and a freelance reporter.

Fleeing fires, using phones

Crowdsourced data may help wildland firefighters escape

BY KRISTA LANGLOIS

The speed at which firefighters are able to travel through vegetation and terrain is difficult to predict.
TRACY BARBUTES

Right, a beta version of the app helps firefighters calculate the size of their safety zone based on factors like wind speed, wildfire fuel and slope. The app will later be updated to predict how firefighters can best move through the terrain to reach safety.
COURTESY OF WISE / U.S. FOREST SERVICE

In 2013, when a wildfire changed tack and made a run for the town of Yarnell, Arizona, 19 members of the Granite Mountain Hotshots hiked down from the fireline to try to save a few homes. As the blaze grew closer, the men were forced to flee to their safety zone, a ranch they thought was a 15-minute hike away. But thick chaparral slowed their progress, and flames overtook them before they reached the ranch. All 19 died.

Like Montana's 1949 Mann Gulch Fire, which killed 13 firefighters, and Colorado's 1994 South Canyon Fire, with 14 deaths, the Yarnell tragedy was complex. But in all three instances, the loss of life boiled down to two factors: The fire moved more quickly than firefighters anticipated, and the firefighters themselves moved more slowly.

Since the Yarnell Hill Fire, scientists have become increasingly adept at predicting how fire moves across a given landscape. But because they've spent far less time studying how humans navigate the same terrain, firefighters can still be caught off-guard. Mickey Campbell, a geoscientist at Colorado's Fort Lewis College, wondered: If Google Maps can tell us how long it will take to walk to the nearest grocery store, could he create something to help firefighters identify the best escape routes and predict how long it would take them to hike to safety? Instead of factoring in traffic and stoplights, the algorithm would account for slope, vegetation and ground surface conditions. And instead of being restricted to streets or trails, users would be shown a customized route on a topographic map.

This technology is still in the works, but after more than five years, Campbell and a team of researchers are now closing in on the science that will drive it.

The first step was modeling how quickly someone moves through the wilderness — a tricky proposition, it turns out. The most widely used formula was developed by a 19th century Scottish mountaineer, who said you should budget one hour for every three horizontal miles you hike, and one more for every 2,000 feet of ascent. But in a field where one minute can mean the difference between life and death, Campbell wanted something considerably more accurate, based on more than one person's experiences.

In 2016, he and two colleagues timed 31 participants as they hiked transects in Utah, and measured how terrain, slope and vegetation influenced hiking speed. It was a good start — but Campbell dreamed of the kind of robust model that could only come from a sample size of thousands, covering all the terrain firefighters might encounter, from open scrublands to dense forest. One day while hiking, he realized that such a data set was already at his fingertips: the social network Strava, which 36 million people worldwide use to track trail runs and hikes via their mobile phones' GPS.

"We thought, if there's any way to tap into this massive database, we could potentially get a whole new perspective on the relationship between landscape conditions and how people move through the environment," Campbell said.

Together with a team that included Bret Butler — a U.S. Forest Service engineer responsible for some of the most significant advances in wildland fire safety — Campbell analyzed 421,000 individual Strava records, then used the data to create a model that predicts how long it will take the average person to travel a specific route along a specific slope. The results were published in the peer-reviewed journal *Applied Geography* in May.

Campbell is now refining the model by testing how hiking speed is affected by firefighters' heavy packs, fire-retardant uniforms and unique fitness levels. Once that's done, the Google Maps-style algorithm will be added to an app already being developed by the Forest Service — the Wildfire Safety Evaluator, or WiSE, which will be released later this summer and won't require a cellphone signal to use. The first version of WiSE will help firefighters calculate how big their safety zone needs to be based on current weather, fire and terrain conditions; Campbell's mapping component will come later.

Mike Benefield, a retired wildland firefighter and manager, is skeptical that firefighters would be likely to whip out phones with a wildfire bearing down. Still, many wildland firefighters already carry phones into the field, and Benefield agrees that the technology has potential. Rather than firefighters using it in the field, for instance, managers working from a base in town could use the app and radio the information to crews. The technology might also help search and rescue professionals estimate how long it will take to reach an injured person and the best way to get there and back again.

And despite the technology's limitations, giving firefighters a tool to help guide them to safety could save lives. "We've got these really powerful computers in our pockets," Butler said. "I think we should use them." □

Krista Langlois is a correspondent with *High Country News*. She writes from Durango, Colorado. @cestmoiLanglois

The politics of saving species

Communication is key, says retired Interior Department biologist

BY CARL SEGERSTROM

Worldwide, over one million species face extinction, according to a recent U.N. report. In the U.S., tools like the Endangered Species Act may help some avert that fate. Ted Koch, a biologist who retired from the U.S. Fish and Wildlife Service in August 2018, has seen the potential of recovery efforts up close: He led the project to reintroduce gray wolves to Idaho more than two decades ago and was the assistant regional director for ecological services overseeing the endangered species program in the Southwest until last year.

High Country News *recently caught up with Koch, who serves on the board of the conservation-minded hunting and fishing organization Backcountry Hunters & Anglers, to talk about species recovery and political influence within the Interior Department. As interest groups drive debates and federal agencies retreat to talking points, understanding the perspectives of Koch and others who do the nitty-gritty work of conservation can illuminate the hardships and hard-won compromises that recover species.*

This interview has been edited for clarity and length.

High Country News: What is the biggest challenge for endangered species management in the West?

Ted Koch: The greatest issue with endangered species management and related land management in the West is a lack of effective communication.

My job, and the mission of the service and the purpose of the ESA (Endangered Species Act), is working with others to conserve the ecosystems upon which we and all other species depend. I can say that to the most hardened, crusty, ESA-hating rancher, logger or miner, and they will agree that that is a noble goal. Our inability to communicate that fundamental idea is the greatest challenge. So much of the American public feels threatened by ESA programs or feels that ESA programs aren't going far enough.

HCN: What are some examples of how communication makes a difference?

TK: I was the project leader when we reintroduced gray wolves to Idaho in the early 1990s. And I would go kick dirt with Brad Little (now the governor of Idaho), who was an industry leader in ranching and had concerns about wolf depredation. When the media came calling I would hold press conferences that I'd set up by myself, and I would tell people what was going on. With that empowerment of people who are actually on the ground — talking to the managers and talking to other citizens — comes greater credibility, strength and authority.

That does not happen anymore. Today, on a topic like wolf recovery, oftentimes our spokespeople are based at the regional director's office, if not Washington, D.C.

HCN: How does political influence affect the ability of agencies to save species?

TK: I'll start by saying that happens far less often than most people would like to think. In fact, in the last two years of my career overseeing 160 endangered species in four states in the Southwest, we put up maybe a couple dozen Endangered Species Act listing decisions, and I was never rolled on any of those recommendations. I received a pocket veto (a tacit denial resulting from inaction by officials) on two of them. (But) the Trump administration is the same as all previous administrations in using their pocket veto power.

HCN: Could you tell me which endangered species decisions you're talking about?

TK: Yes, I could. But I don't want to throw anyone under the bus.

For one of those species, we got an intent to sue, and now we're going to follow a court ordered deadline for listing. In my world, it's not a big deal if it's this species we're going to get sued on or that one, because we get sued so much. In this case, my impression was that knowing it was a controversial decision, they chose not to advance the listing — with the understanding that they would get sued and then be forced to act.

HCN: Obviously, there's some political maneuvering in these decisions, but you don't feel like there's been an outsized amount of political influence during the Trump administration?

TK: Frankly, my experience with the Trump administration is not negative. For example, (Interior Secretary) David Bernhardt. On one of our species issues, it was a controversy, and he came in and said: "First, we will obey the law; secondly, we're going to follow the science; and third, I'm not afraid to make hard decisions like list this species, but we're going to vet this thoroughly, if that's the way we're going to go on this species." I know he's not popular amongst many of the folks here (a Backcountry Hunters & Anglers conference), and he's made policy decisions that I disagree with, but I don't think anyone should question his intent or his integrity.

I can find things that I don't like, like reducing protections for sage grouse. I don't like that. The national monuments review — I disagree with that. I don't think we should be removing protections for national monuments. There's policy outcomes that I don't like, but that doesn't mean that people are bad or wrong.

They're in charge, they got voted in. Elections matter. □

"With that empowerment of people who are actually on the ground — talking to the managers and talking to other citizens — comes greater credibility, strength and authority. That does not happen anymore."

— Ted Koch, retired U.S. Fish and Wildlife Service biologist

COURTESY OF TED KOCH

Biologist Ted Koch led the reintroduction of gray wolves into Idaho in the 1990s. SHANTHANU BHARDWAJ/CC VIA FLICKR

Carl Segerstrom is an assistant editor at *High Country News*, covering Alaska, the Pacific Northwest and the Northern Rockies from Spokane, Washington. @carlschirps

A pygmy rabbit seeks shelter under sagebrush within a protective enclosure. The few hundred wild Columbia Basin pygmy rabbits are the descendants of 16 that were captured and bred by biologists.
RAJAH BOSE FOR HIGH COUNTRY NEWS

Room to grow

Washington's pygmy rabbits need healthy habitat to thrive

BY CARL SEGERSTROM

In the rolling hills of the Columbia Basin in central Washington, a tractor kicked dust from a wheat field as an early May breeze filtered down from the Cascade Mountains rising in the west. In a patchwork of sagebrush and bunchgrass, Jon Gallie searched for the newest generation of North America's smallest rabbit, the state and federally endangered Columbia Basin pygmy rabbit.

When not moving by memory through this reclaimed farmland, Gallie, an endangered species project leader for the Washington Department of Fish and Wildlife, traced his footsteps to dots on his phone marking den sites. In a city, he could easily pass for a Pokémon Go player, chasing fictional creatures in an imaginary digital realm. But the grapefruit-sized animals he was seeking are real, though elusive; after more than two hours of searching, all we found were empty burrows and an abundance of scat.

Still, the salmon egg-sized droppings were an encouraging sign. That's because a century of farming, development and increasingly frequent and intense wildfires has fractured the habitat of the Columbia Basin pygmy rabbit; by the late 1990s, just a handful were left. In 2001, biologists captured 16 of the last few dozen rabbits. Nearly two decades of direct human intervention followed, a multi-pronged effort that saved the animals from being banished to stories, screens and natural history textbooks. Pygmy rabbits now number in the hundreds in the Columbia Basin — but they remain far from a resilient and healthy population.

The rabbits have shown that they can rebound, however, as long as they have enough habitat to call home. The efforts to save these diminutive mammals illustrate a hard lesson: Even when scientists can breed an endangered species back to healthy numbers, protecting land and building bridges between dispersed populations remains a continuing challenge for recovery. For central Washington's pygmy rabbits, humans have been the agents of both destruction and salvation. Now, the challenge is to also play the role of nurturer, giving the rabbits — and other endangered species — the space they need to reclaim a place on the landscape.

We live in an age of extinction, driven by human contributions to climate change and habitat destruction. Facing these crises has meant making compromises that save some species, but also change them. Hundreds of vertebrates have blinked out in just the last century. When biologists captured the last known wild Columbia Basin pygmy rabbits in 2001 to start a captive breeding program, they hoped to keep the species from joining their ranks. And in a sense, they've succeeded, as the burrows and scat in the sagebrush show.

But early on, inbreeding produced sickly offspring and low reproductive rates. In 2004, the scientists — part of a collaborative effort between universities, zoos and state and federal agencies — had to breed them with a closely related population, the Great Basin pygmy rabbit. This was a matter of "genetic rescue," explained Stacey Nerkowski, a University of Idaho doctoral student who leads a team studying pygmy rabbit genetics.

The new genes staved off the complete loss of the population. While the last pure Columbia Basin pygmy rabbit died in 2008, unique genes that arose over millennia live on in the rabbits now munching sagebrush in central Washington. On average, about 25% of each rabbit's genome comes from the wild rabbits collected in 2001. Nerkowski said the resilience of those genes — they continue to show up, generation after generation, because they help the rabbits survive there — shows the value of recovering local rabbits, rather than simply transplanting other pygmy rabbits into the Columbia Basin. "This isn't just a rabbit we picked up in Wyoming; it has the unique genetics of this area," Nerkowski said.

After tromping through unfenced stands of sagebrush for most of the morning, Gallie and I hopped in his truck and

Carl Segerstrom is an assistant editor at *High Country News*, covering Alaska, the Pacific Northwest and the Northern Rockies from Spokane, Washington. @carlschirps

headed south to another rabbit recovery area, in the Beezley Hills west of Ephrata, Washington. Here, sagebrush and bunchgrass, flourishes of wildflowers, wheat fields and the dreaded invasive cheatgrass all intermix. In the Beezley Hills, land protected by The Nature Conservancy and a private landowner who has dedicated his property to pygmy rabbit conservation provides habitat for reintroductions.

Biologists have been trying to re-establish the rabbits on the landscape since 2007, when wild reintroductions failed. After that unsuccessful attempt, the recovery team turned to semi-wild enclosures in 2011, to ease the transition from captivity to the starker realities of the rabbits' natural habitat. Solid fences, irrigation systems, artificial burrows and supplemental food provided the animals the amenities project leaders thought they needed to survive. The rabbits proliferated, but then, in the confined and artificial space, disease did as well, and in 2016, reproduction in the enclosures dropped by about 75%.

For the last two years, the recovery team has been using different enclosures, more mobile and spartan in nature, both to avoid disease transmission and better prepare the rabbits for life outside the fences. No supplemental feeding is offered, and other than some water laced with medicine to fight off an intestinal disease, the sagebrush-blanketed hillside is left in its natural state. As we walked through the main enclosure at Beezley Hills, both adults and baby rabbits scattered in blurs of fur, zigzagging through the chest-high sagebrush. When caught against a fence line, the rabbits froze, blending into the gray bushes and light brown soil.

The changes have produced kits that survive better in the wild, allowing the recovery team to distribute them across the landscape. That's vital to bringing back the rabbit, with the risk of population-decimating fires haunting its future — and its recent past. In the summer of 2017, the 30,000-acre Sutherland Canyon Fire wiped out the majority of rabbits in the area. As strong winds pushed the blaze over ridges and through draws, Gallie and his team quickly reconfigured the irrigation system in the Beezley Hills enclosure. They were able to save about one-third of the hundred-plus rabbits living there. But the threat to each of the three recovery areas remains in the fire-prone sagebrush, showing how important maintaining a wider swath of habitat is for the animals.

Fire doesn't just scorch pygmy rabbit colonies; it also imperils the ecosystem they depend on. Repeated fires that both propel and are fueled by the spread of invasive species like cheatgrass deliver a one-two punch of destruction to native species in sagebrush habitat.

Corinna Hanson manages more than 30,000 acres in central Washington for The Nature Conservancy with an eye toward preserving native habitat. That's a constant challenge now, as summers get hotter and fires occur twice a decade instead of less than twice a century, the historical norm. "When I think about restoration, it's almost like we can't keep up," she said. "But we're not going to give up." In talking about endangered species recovery, the focus is usually on the species itself. But, she said, "when you work to conserve a species, it always comes down to habitat management."

Expanding open space to connect the reintroduction areas, which are spread over about 40 miles and divided by roads, fields, sheer cliffs and houses, would be the ultimate sign of success for the project, Gallie said. Tools to stitch together the fractured landscape include land preserved for habitat protection by The Nature Conservancy, and U.S. Department of Agriculture grant programs that pay farmers to take land out of production so wildlife can use it instead.

Gallie said communicating the goals of the recovery effort and building trust between people in town, farmers in the country, nonprofits and government partners is key to the program's success. "You can have the best scientists and the best habitats and the best approach in the world, but if everyone out here is skeptical and oppositional, it's going to make things very difficult." When he appears at community events and at farmers' doors, Gallie said, the familiarity and trust he's built show locals that the pygmy rabbit program isn't some big government overreach happening in a faraway office. "It's just me, the same guy you wave to every day, with the same dirt on my boots."

Columbia Basin pygmy rabbits are far better off today than they were two decades ago, but their future remains tenuous. One fire could wipe out most of the population. And until they inhabit continuous corridors, where they can meet new mates and be less vulnerable to catastrophic fires, they'll remain on the precipice of extinction.

Still, the species is gaining ground in a time when conservation is pervaded by stories of loss. The world is losing species. It's losing habitat. And humanity is losing time to try to save the current biome from the worst impacts of climate change. But perhaps our biggest deficit, and greatest challenge, is our apathy toward that loss.

"When I get asked, 'Why do we need pygmy rabbits?' I don't always have the best answer," Gallie said, as fine dust kicked up with each step we took through the sagebrush. "You either value biodiversity or you don't, and if you don't, there's pretty much nothing I can say that's going to make you go, 'Oh, now I agree.' "

As a society, it's often hard to agree on which species to save, which organisms are necessary to make an ecosystem whole, or if it even makes sense to try to prevent extinctions. In all of those debates, Gallie pointed out that we often forget the current moment is a blip in evolutionary history, and, regardless of human interventions, nature will continue to shape this landscape. In the end, he said, "Life always wins. It's more our loss." □

Wildlife biologist Jon Gallie searches for traces of pygmy rabbits at their den sites. RAJAH BOSE FOR HIGH COUNTRY NEWS

Thank you, Research Fund donors, for supporting histories of the West's many environments

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

Thank you for supporting our hardworking journalists.

PUBLISHER'S CIRCLE

RCG Fund, Rose Community Foundation | Boulder, CO

STEWARD

Katherine Borgen | Denver, CO
Peter & Kathleen Metcalf | Park City, UT

GUARANTOR

Anonymous
In memory of Pete Eastman | Denver, CO
Trace Baker | Boulder, CO
Loyal & Bernice Durand | Aspen, CO
Robert & Mary Estrin | Los Angeles, CA
Kaiser Permanente Foundation | Santa Fe, NM
Beverly Parsons | Hansville, WA

BENEFACTOR

Joanne Christensen | Lafayette, CO
Tom & Bonnie Clarke | Denver, CO
Don & Roberta Hall | Corvallis, OR
John Heyneman & Arin Waddell | Sheridan, WY
Eric Hirst | Bellingham, WA
Roger Jenkins & Suzanne McDonald | Bozeman, MT
Susan B. Lynn | Reno, NV
Robert T. Moline | St. Peter, MN
Kenneth Smith | Saratoga, CA

SPONSOR

Donna Buessing | Clayton, CA
Robert Coon | El Cerrito, CA
Eric A. Coons | Mesa, AZ
Peter & Catherine Davis | Wrightsville Beach, NC
Charlene Dougherty | San Francisco, CA
Benjamin & Cynthia Everitt | Ivins, UT
Juli & Michael Fahy | Evergreen, CO
James C. Faris | Santa Fe, NM
William B. Galloway | Aurora, CO
Norman Grosfield | Helena, MT
Chris Hoffmann | Salem, OR
Mike & Margaret Jaeger | Ottawa, IL
Robert Jaworski | San Jose, CA
Donald Jordan | Prescott, AZ
Eloise Kendy & Tim Byron | Helena, MT
Carol Lubell | Colorado Springs, CO
Marie Martin | Grand Junction, CO
Gary T. Moore | Denver, CO
Urs Ochsner | Boulder, CO
Ruth & Greg Phillips | Salida, CO
Mike Prim | Los Alamos, NM
Richard S. Riger | Albuquerque, NM
Jose Skinner | Austin, TX
Scott Smidt | Laramie, WY
David Vanicek | Paradise, CA
Patricia & Gwinn Vivian | St. Johns, Arizona
Derk Wadas | McKinney, TX

PATRON

Anonymous (9)
In honor of Lee Ehrenstein | Albuquerque, NM
In honor of Peter J. Stanton II | Reno, Nevada
In memory of Andy Bamber | Crested Butte, CO
In memory of Tom Bell | Powell, WY
In memory of Frances Carlson | Manson, WA
In memory of Bob Delzell | Bayfield, CO
In memory of Katherine Hill | North Bend, OR
In memory of Nancy Jean Ring | Frisco, CO
In memory of Mary Scott King & Mary Lisle Tucker | Huntington Beach, CA
In memory of Jean Turner Schreier | Baltimore, MD
In memory of Dan Shields | Morrison, CO
In memory of Timothy Tuthill | Laramie, WY
Chuck Aid | Evergreen, CO
Marvin Baker | Denver, CO
Robert & Dixie Blome | Nampa, ID
Rob & Mary Bricker | Prescott, AZ
Rogene Buchholz | Denver, CO
Scott Cadenasso & Erika Wanenmacher, JOOTS | Santa Fe, NM
John Calderazzo & SueEllen Campbell | Bellvue, CO
Kenneth & Jane Cole | Albuquerque, NM
Scott & Hara Davis | Cliff, NM
M.W. & C.K. Durrant | Manila, UT
Nancy Easter | Tucson, AZ
Fred & Nancy Emerson | Solvang, CA
George Farnsworth | Bloomington, IL
Paul & Marilyn Felber | Alpine, CA
Barbara Fenton | Denver, CO
Gerald Folland | Seattle, WA
Jerry Franklin | Issaquah, WA
Tom & Ann Fremgen | Golden, CO
Laurie Goodluck | Albuquerque, NM
Carol Goodman, L3 Technologies | Sandy, UT
Maureen & Bob Hall | Crested Butte, CO
Thomas Hansen Peil | Ashland, OR
Robert Harper | Rock Springs, WY
Charles & Bonnie Hash | Bozeman, MT
Naomi Heiser | Louisville, CO
Jean Helm | Arlington, WA
David Henderson | Centennial, CO
Sheila & Allen Henry | Fountain Hills, AZ
Will Hiatt | Denver, CO
Neil Hourihan | Burlington Flats, NY
Clark Huff | Parker, CO
Howard & Holly Huff | Mackay, ID
David & Loui Janecky | Los Alamos, NM
Marian Katz | Golden, CO
Steve Kellar | St. Helens, OR
Jeffrey Ladd | Chester, VT
Christopher Lane | Denver, CO
Percy V. Laube & Joan Ridell | Somers, MT
Robert Lee | Pagosa Springs, CO
Dennis C. Lindner | Pendleton, OR
Richard & Amy Linville | Emmett, ID
Kathleen Lucich | Sparks, NV
Joanne Magalis | Los Lunas, NM
Jack Massey | Grand Junction, CO
Patricia Matheny | Coos Bay, OR
Margaret Matter | Tucson, AZ
Lynn D. Mattingly | Paonia, CO
Pat McCabe | Bend, OR
William McGuire | Scottsdale, AZ
Charles Morris | Clarkston, WA

FRIEND

Anonymous (20)
In honor of Cameren, Aaron & Quentin | Aurora, CO
In honor of independent journalism | Oroville, WA
In honor of peace everywhere | Portland, OR
In memory of Kitty McKenna Brothers | Santa Fe, NM
In memory of Margie D. | South Bend, IN
In memory of Loren Eiseley, author | Montrose, CO
In memory of Patrick Kearns | Denver, CO
In memory of James Linneman | Merced, CA
In memory of Jennifer Lyn | Durango, CO
In memory of Chris Miller | Denver, CO
In memory of Alex Payan | North Ogden, UT
In memory of R.W. Smitty "Smith" | Vancouver, WA
In memory Sandra L. Unger | East Brady, PA
In memory of Rus Weathers | Pagosa Springs, CO
Jim Aton | Cedar City, UT
Britt Bassett & Ilana Stern | Durango, CO
Jackie Boss | Anacortes, WA
Jean-Pierre Cavigelli | Casper, WY
Judy Chavez | Loveland, CO
John Corbett | Portland, OR
Dennis Dimick | Arlington, VA
Michael & Sheryl Doro | Reno, NV
Dale C. Ellis | Beaverton, OR
George Epp & Kenda Peterson | Niwot, CO
Laverne Etter | Fruita, CO
Lawrence & Tina Flournoy | Twin Falls, ID
David Floyd | Scottsdale, AZ
Barb & Mark Fowler | Durango, CO
Ennis & Susan Geraghty | Columbus, MT
Evalee Gifford | Grand Junction, CO
Susanne A. Haffner | Clovis, CA
Thomas Harding | Whitefish, MT
Richard Harrington | Oregon City, OR
Russell & Billie Hart | Spokane, WA
F. & B. Hartline | Butte, MT
Sara Hayes | Long Beach, CA
Wayne Hedman | Hamilton, MT
J. Paul Heffron | Boulder, CO
Michael W. Hill | Abiquiu, NM
William E. Hine Jr. | Catawissa, PA
John Hodge | Bellingham, WA
William & Jan Holmes | Grand Junction, CO
G. Huber | Boise, ID
Carl J. Huntzinger | San Ramon, CA
P. Stanley Jacobsen | Lakewood, CO
Jim Karns | Payson, AZ
R. M. Keegan | Golden, CO
David Kimball & Anne Austin Taylor | Mill Valley, CA
David Kirkpatrick | Livingston, MT
Linda LaGrange | Las Vegas, NM
David J. Larson | El Cerrito, CA
David Lenderts | Alamosa, CO
Sally Letchworth Bub | Kinnear, WY
Martha & Joe Liebert | Bernalillo, NM
Tony Lyon | Rifle, CO
Christine Erica Marbet | Shelton, WA
James Merzenich | Brownsville, OR
Helmuth Naumer | Boulder, CO
Elizabeth Oakes | Cheyenne, WY
Marilyn Olson | McCall, ID
Jo Overton | Philomath, OR
Greg Parsons & Dorothy Johnson | Wheat Ridge, CO
Robert Pond | Columbus, MT
Edwin & Sylvia Reis | Bethesda, MD
Jim & Sandy Ridlington | Corvallis, OR
Joan Roberts | Phoenix, AZ
Janet Ross | Monticello, UT
Kurt Rusterholz | St. Paul, MN
Tim Schirber | Commerce City, CO
Larry Schramm | Newberg, OR
Tam & Sue Scott | Patagonia, AZ
Donna Shoemaker | Larkspur, CA
Bill Sims | Winnemucca, NV
Joyce Sjogren | Fort Collins, CO
Patricia Smith | Ashland, OR
Elizabeth Stewart | Seattle, WA
Linda Swanson | Buena Vista, CO
Grant Thomas | Pocatello, ID
David Trout | Port Orchard, WA
Virgil Tucker | Boulder, CO
M. P. Weidman | Boulder, CO
Marvyl Wendt | Tucson, AZ
Grant Wiegert | Luray, VA
John D. Wiener | Boulder, CO
Bill Wiese | Albuquerque, NM
James Wilkinson | Boulder, CO
Leni Wilsmann | Boulder, CO
Robert D. Woessner | Silverthorne, CO
Richard Woodruff | Denver, CO
Richard Worm | Bellevue, IA

☑ YES! I care about the West!

☐ $35 Friend
☐ $75 Patron
☐ $150 Sponsor
☐ $250 Benefactor
☐ $500 Guarantor
☐ $1,000 Steward
☐ $2,500 Philanthropist
☐ $5,000 Publisher's Circle
☐ $10,000 & up Independent Media Guardian

Amount of gift $ _____ ☐ Make this amount recurring
☐ Here's my check (or voided check/1st month's gift for recurring gifts)
☐ Charge my credit card $15/month minimum

Card # _____ Exp. date _____
Name on card _____
Billing Address _____
City/State/ZIP _____

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

Stitching the Northwest back together

BY PAUL LARMER

On a cloudy morning in early May, I hopped out of Paul Engelmeyer's pickup and into the middle of a logging project on Oregon's Siuslaw National Forest. I was on another leg of *High Country News*' "On the Road to 50" tour of the West, which aims to learn about our readers' concerns as this organization hits the half-century mark.

For Engelmeyer, this thinning project ranked high. Compared to the Weyerhaeuser clear-cuts we'd just driven through, it looked pretty good: Above piles of slash, a smattering of youngish Douglas fir still stood. The trees remain because of the Northwest Forest Plan, inked by President Bill Clinton in 1994 after a nasty legal battle over the declining northern spotted owl. Guided by the owl's occupied habitat, it preserved the last old-growth forests on public lands in Northern California, Oregon and Washington. *High Country News* cut its teeth on the Northwest with that story, hiring our first field editor, Pat Ford, to do a special issue. We have covered this region ever since.

Engelmeyer, who came to Oregon in the 1970s to plant trees behind clear-cuts, told me that the plan allows young stands like this to be thinned, letting them mature into more old-growth forest. It's a solid long-term strategy, but given the surge in private-land cutting in coastal forests, Engelmeyer believes it's not happening fast enough, especially for imperiled species. "The Northwest Forest Plan is the best landscape plan ever written on the planet," says Engelmeyer, who chairs the Mid-Coast Watershed Council, a nonprofit focused on habitat restoration. "But is it enough? No. We know a lot more today than we did then."

We know more about the marbled murrelet, for one, a robin-sized seabird that can swim 200 feet underwater after small fish. Females lay a single egg every other year, preferably on the thick horizontal branch of a tree more than 200 years old. The bird was listed as threatened under the Endangered Species Act in 1992, and since then, it has continued to decline. Perhaps 15,000 live in the entire Pacific Northwest, Oregon State University researcher Kim Nelson told us. New studies point to a more nuanced threat: The blackberries and other broad-leafed plants that spring up in heavily thinned forests are attracting blue jays, crows and other corvids, which in turn dine on murrelet eggs and young birds. Predation rates can reach 70%.

Engelmeyer wants the Forest Service to leave more trees standing after the harvest to reduce shrubby growth and predation; corvids avoid deep forests and the other predators — including owls — that lurk there. But ratcheting down harvesting levels is not in the interests of the still-powerful timber industry, which has resisted efforts to increase the size of no-cut zones along streams and regulate aerial herbicide spraying — a story *HCN* broke in 2014.

Ecosystem advocate Paul Engelmeyer makes his point in front of a massive red alder tree on Oregon's Siuslaw National Forest. PAUL LARMER/ HIGH COUNTRY NEWS

As we wound our way down dirt roads toward the coast, moss-covered Sitka spruce and western cedar towered above us. Gnarly red alder lined Beaver Creek, and Engelmeyer pointed out where the Forest Service has placed large logs into the creekbed to create more nooks and crannies for coho salmon. Hundreds of thousands once swam up this drainage to spawn, but now just a tenth of that make it. They are stymied by a multitude of obstacles, including erosion from timber harvesting that silts up the gravels where they lay eggs, clogged culverts that block their passage, tree-less pastures where water temperatures get dangerously high, and changing ocean conditions.

Engelmeyer's Mid-Coast Watershed Council is one of 80 that have sprung up in the state in response. We passed private properties where the council has planted trees to shade the creek, and, just shy of Ona Beach, we stopped at Brian Booth State Park, a 364-acre tract of recovering forest and wetlands cobbled together from private landowners. We didn't see any murrelets, but at the visitor center a pileated woodpecker swooped out of a spruce, blaring its staccato call.

Later, at the overlook at Cape Perpetua, we discussed the connections between forest and ocean over the din of crashing surf. It all starts with the California Current, which flows south along the continent from Alaska to California. Summer winds from the north nudge waters away from shore, allowing the current's cold nutrient-rich waters to surface. In the presence of sunlight, they catalyze massive blooms of phytoplankton, which form the base of a food-web smorgasbord that feeds everything from sardines and rockfish to whales and salmon. "It's like adding Miracle-Gro," Francis Chan, an ocean scientist at Oregon State University, told me the day before. The cold water also creates the fog that blankets the forests with critical moisture during dry summer months.

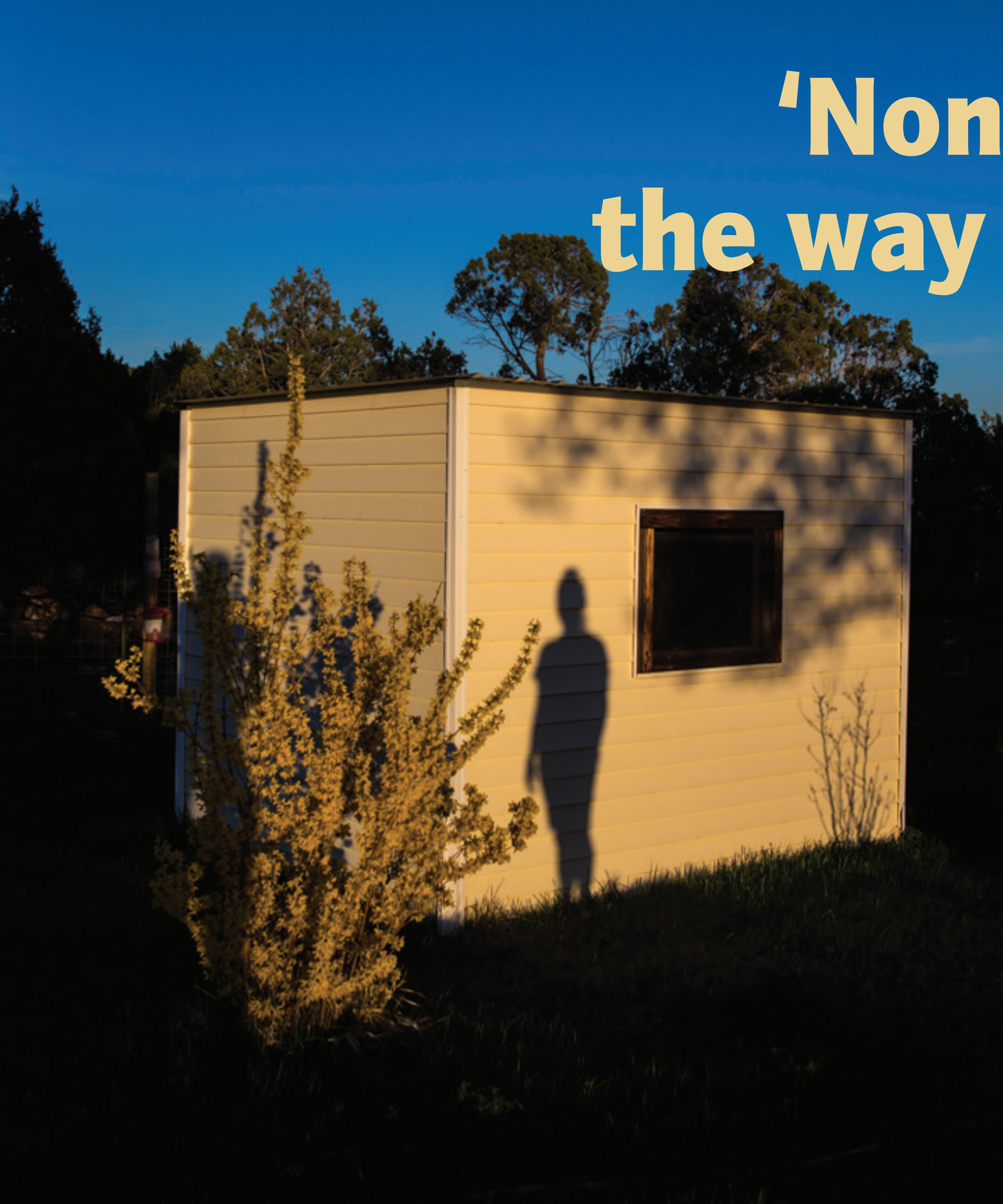
And then, of course, there are species like murrelets and salmon that need both terrestrial and aquatic habitat to survive. Engelmeyer and I ended our day at the Salmon River just north of Lincoln City, where the Forest Service is restoring an entire estuary. Manager Kami Ellingson described how the agency had removed the tide gates and levees built to dry out the landscape for grazing and development. Today, she said, young salmon smolts are using the expanding tidal waters to fatten up before they head to the ocean.

As we left, Engelmeyer sounded undaunted, still eager about all the work ahead. "We have a long way to go, but it's working," he said. "We're stitching back together a whole ecosystem." □

The threatened marbled murrelet nests in old-growth trees up to 50 miles inland from its ocean feeding grounds. KIM NELSON/ OREGON STATE UNIVERSITY

"On the Road to 50" is a series of community gatherings in cities across the region, collecting feedback about *HCN*'s future direction as we approach our 50th anniversary in 2020. See more: **hcn.org/otr-50**

Paul Larmer is executive director/ publisher of *High Country News*.



'Non
the way

e of this happened you think it did'

For years, the clients of a Colorado funeral home kept their loved ones' cremated remains. Then the FBI called.

FEATURE BY ELENA SAAVEDRA BUCKLEY

PHOTOS BY LUNA ANNA ARCHEY

Last summer, Debbie Schum walked onto the campus of Colorado Mesa University in Grand Junction, carrying a petite gift bag. The bag had red and pink swirly designs, a look that made 54-year-old Schum, a lifelong tomboy who wears her gray hair in a limp mohawk, feel awkward about carrying it. When the FBI called, suggesting she bring the bag to their outpost at the school, they were adamant about punctuality. Schum arrived 20 minutes before 2 p.m. and climbed the stairs to the second floor of a beige brick building. The bag held a container of cremated human remains. They belonged to LoraLee Johnson, known as Lora, Schum's best friend for nearly 30 years.

The ashes hadn't met their intended fate. On June 13, 2017, Johnson passed away from bladder cancer at Schum's home in Hotchkiss, a small community surrounded by orchards and farms in western Colorado. In her will, Johnson, an artist and proud Aquarius, asked Schum to mix the cremated remains with glitter and ground herbs. She wanted them scattered at Orvis Hot Springs in the town of Ridgway, where she and Schum had spent many hours soaking.

The day after her death, Johnson's body arrived at Sunset Mesa Funeral Directors in Montrose, Colorado, a big-box town of 19,000. A 42-year-old woman named Megan Hess owned Sunset Mesa, and Hess' mother helped her with the business. After Johnson's body went to the funeral home, Schum said it took seven weeks for the ashes to return in the gift bag, By that time, the memorial Johnson's friends wanted had been repeatedly delayed. Schum cared about the remains, but they felt incomplete as they were. Then, a year later, the FBI called.

At the university, Schum spoke to a woman at an intake table in the hallway, who asked her to wait. Special Agent in Charge John Busch and another FBI employee eventually appeared. Schum followed them into a small room, placed the bag on the floor and sat down.

The agents began asking her questions about Sunset Mesa: Did she originally contact them? No, hospice did. At what time did she visit the business? Around 1:30 p.m., the day after Johnson's death. What arrangements were made?

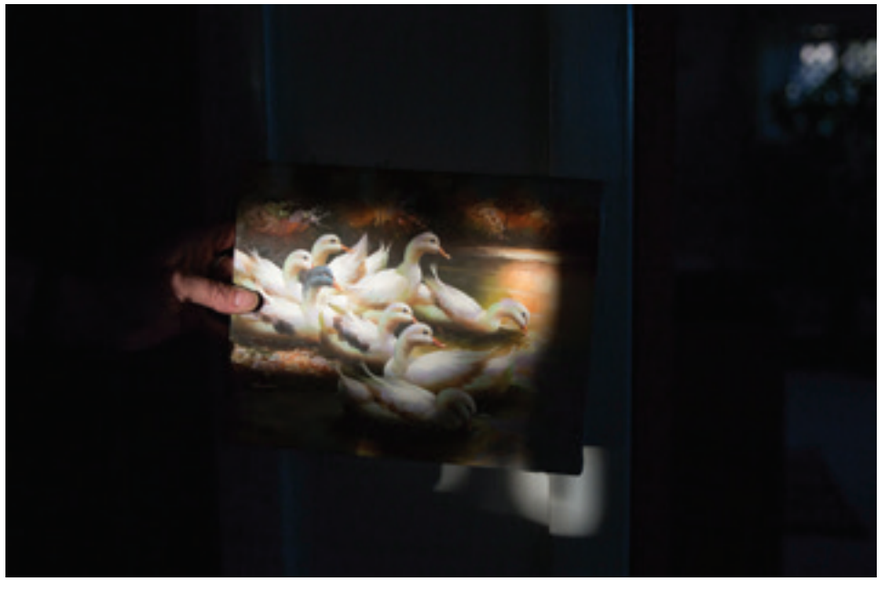
At Sunset Mesa, Hess asked for $1,000 cash for the cremation. Schum didn't have enough in her wallet, so Hess suggested that she donate Johnson's bladder — untouched by chemotherapy and radiation after Johnson rejected both treatments — to cancer research. The cremation would be free if she did so, but Johnson hadn't wanted any part of her body removed. Considering the saved money and the benevolence of donation, Schum, with some guilt, took the offer.

"What would you have said if she asked you to donate the entire body?" Schum remembers Busch asking.

Schum considers herself a fierce rationalist, the kind of person who's usually irritated by hypotheticals. "They didn't ask me that," she said firmly. She wouldn't have agreed if they had.

Busch paused. "I'm sorry to inform you that none of this happened the way you think it did."

Debbie Schum's shadow falls on a shed at her home in western Colorado. Schum's friend LoraLee Johnson spent her final days in the home.



▲ Debbie Schum in her home in western Colorado, where she brought what she thought was a bag containing her friend Lora Johnson's cremated remains. The FBI later took the bag and its contents as evidence in a body-brokering scheme.

▶ A painting Johnson made for Schum as a housewarming gift when she first moved into her home six years ago.

The agents told Schum that they suspected Sunset Mesa had sold Johnson's entire body, potentially one of hundreds to meet a similar end. According to FBI letters and emails sent to families, the bureau began investigating Hess' businesses in October 2017. Along with Sunset Mesa, Hess ran a nonprofit called Donor Services Inc., through which she sold donated bodies or their parts to various companies. This unregulated field, which itself is legal, is known as "body brokering," and it supplies cadavers to industries that seem benign — university labs, medical schools — as well as plastic surgery classes, car companies and the military. An FBI review of her donor files showed that Hess allegedly sold bodies that were meant for cremation without proper consent.

After Reuters interviewed concerned former employees of Sunset Mesa, the FBI raided the business in February 2018. Soon after, the Colorado Department of Regulatory Agencies opened its own investigation, which found that Hess failed to maintain necessary records for years and had disposed of bodies without required permits. She entered an agreement with the agency to surrender her business registration, and Sunset Mesa is now permanently closed. The FBI has confirmed the existence of its criminal investigation and acknowledged that it has tested cremains for "foreign substances," but little else about the case has been publicly revealed. With suspicions swirling, some of the funeral home's alleged victims have filed civil suits accusing Hess of fraud, civil conspiracy and other violations. Hess, who did not respond to multiple interview requests or a list of questions, has denied the accusations. No one has yet been charged.

The university's Forensic Investigation Research Station tested 128 samples of cremated remains, and some, including those thought to belong to Johnson, were taken to FBI headquarters in Quantico, Virginia. Alleged victims were told that these "central" cases, of which there are about 50, involved bodies that were sold whole. Because cadavers transfer between buyers — and are sometimes dismembered in the process — their ultimate destinations are hard to track. Relatives learned that their loved ones' remains, if indeed sold, were unlikely to ever be found.

Concerns metastasized past Montrose into many western Colorado towns and beyond, creating a vast web of people, many living in rural communities, touched by the investigation. The story reveals the thin barrier that separates most Americans from the grisly methods, and possible abuses, of the death care industry. For many family members, the lasting anger comes from the idea that, no matter how much meaning their loved one's body carried, someone else could have viewed it as a product, taken it apart, put it in a box and sold it. Life

felt permanently altered for many. "Why would you even dream that this could be possible?" one woman wondered.

In the room with the agents, Schum was stunned. She could only say, "What are you talking about?" She said it many times. The bag on the floor had suddenly become an intruder. Lora might not be inside it, and no one knew what was. She handed the bag to the agents so they could test its contents. "Take your time," she said. "It's not her anyway."

"Did it come in this little gift bag?" Schum remembers Busch asking. "What did you think of that?"

"I thought it was tacky."

The agents told her they would be in touch. Schum went back to her car, thinking that, for someone who just heard that her friend's body was lost, she was doing pretty well. She stopped at Walmart to pick up trash bags and other household supplies on the way home. Once inside the store, everything hit her.

Schum started "freaking out," something she rarely does. She began crying and fled to the restroom to hide, but it was busy. She abandoned her filled shopping cart in an aisle. Somehow, she made it home. Once there, she rifled through the documents relating to Johnson's estate, looking for a receipt, anything, from Sunset Mesa. All she found were business cards.

The FBI agents couldn't tell Schum where Johnson's body had gone, but they did ask her if she had ever heard of "plastination." She took this as a hint. Plastination is a process that halts a body's decay by removing the skin and replacing the fluids with liquid polymer. The body is then positioned with clamps and foam blocks to "cure." After hardening in its position, a process that takes months, it ends up displayed in classrooms or exhibits. It is one of many possible fates for a brokered body.

Selling corpses is a shadowy industry, but it doesn't necessarily operate outside the law. Tissue and organs for transplant go through a highly regulated process, but non-transplant tissue, the kind used for scientific and medical research, can be sold when obtained consensually through the Uniform Anatomical Gift Act. Around 20,000 people donate their bodies for this purpose each year, often through university programs. There's a greater demand for cadavers than those programs can satisfy, though, so independent brokers and tissue banks, where bodies are stored and distributed, have stepped in to fill the void.

Almost no laws control what happens to non-transplant tissue once it is donated; a cadaver can theoretically be sold or leased many times. Brokers, especially those working without proper consent, take advantage of the resulting gaps. The money is often enough to justify their behavior — a complete body usually sells for between $3,000 and $5,000, but prices can peak much higher. Brokering scandals have occurred near Los Angeles, Detroit, Phoenix, Albuquerque and even the medical schools at Tulane and UCLA.

In Colorado, there are few regulations to catch shoddy behavior, such as illegitimate body trading, by mortuaries. It is the only state in the country that does not license funeral home and crematorium operators, and its regulatory agencies have little authority to inspect these businesses. In response to the Sunset Mesa investigation, in June 2018, Colorado lawmakers made it illegal for anyone who owns more than a 10 percent interest in a mortuary or crematory to have interest in a non-transplant tissue bank.

The state's Department of Regulatory Agencies had received complaints about Sunset Mesa for years, including one from a former Delta County coroner, but no disciplinary action occurred until after the 2018 FBI raid. The agency's eventual investigation alleged that Hess used unmixed concrete as a replacement for the ashes. "What we have here is an orchestrated event," Hess wrote in her response, claiming that a state investigator and another local funeral home owner cooked up the story. "You do not become the number-one funeral home in town by doing a bad job."

Hess dealt with hundreds of customers since becoming the owner of Sunset Mesa in 2011. According to more than 50 stories from interviews and legal documents, those contacted by the FBI had experiences similar to Schum's: discounted or free cremation services in exchange for a donated organ, with little attention paid to the lack of forms or receipts. Others never agreed to donate anything. Many remembered Hess as a warm, sweet woman who put them at ease. Some families kept the ashes they received at home, while others buried them next to a spouse in Florida, or scattered them under a tree in Oregon, or flew them to an ancestral village in Ireland. Months or years later, in 2018, they learned they might be the victims of a crime.

When Schum and I first spoke on the phone last October, she wanted to dispel the idea that she was in an emotionally fragile state. She described the Sunset Mesa ordeal as "usurping her grief" — more frustrating for the emotions it hijacked than the new ones it produced. She despised Hess and her family for their possible deception, and she wanted justice. But she also seemed disturbed by how quickly the investigation had made her feel like a stranger in her own world. Schum has experienced other losses in her life. But losing her friend twice, first to cancer and then to the underworld of the cadaver market, reminded her that, no matter how much she attempted to confront death, there were many unimagined trap doors.

The FBI set up an online survey for Sunset Mesa's clients to discover whether they might be relevant to the investigation. Some didn't respond at all, but Schum wanted as much information as the FBI could give her. Then she did more research. She looked for Johnson in plastination company databases, searching for a familiar, albeit skinless, face. She combed through tangentially related articles. She read about the industry in Annie Cheney's *Body Brokers*. "Relatives rarely have the opportunity — or the inclination — to accompany their deceased loved ones into the realm of hospital morgues and funeral homes," Cheney writes. "But once death comes, they are quick to release them into a world which, for many, is a kind of wilderness."

Schum struggled to define her feelings. The body had been stolen from her, in a way, but Johnson was already dead — the body wasn't her anymore. Why, other than their fraudulent and disrespectful nature, were the accusations so upsetting? It defied Schum's compulsion to categorize. "There's no file folder for this," she said. "When there isn't one, it swims in your head until you can create one." Like the death of a loved one, the incident felt incomprehensible, but there was no funeral-like event to usher her into its fact.

"The most succinct way to say this," she said, "is that I really, really need to call Lora and tell her this totally bizarre and horrible thing that happened to my friend Lora."

"I really, really need to call Lora and tell her this totally bizarre and horrible thing that happened to my friend Lora."

—Debbie Schum, talking about trying to come to terms with what happened to her friend's body after she died

In October 1989, 24-year-old Schum got off a plane in Grand Junction after spending the summer in Alaska with her boyfriend, a raft guide. It was 1 a.m. and cold, and the next bus to her neighborhood wouldn't leave for hours. She knew an artist who lived in a warehouse in town and, hoping to crash on his floor, she walked there and knocked on his window. Johnson, who had been dating the artist, appeared on the other side of the glass. She opened the window about six inches, and Schum began fumbling out an introduction. Johnson stopped her. "Do you need somewhere to sleep?" she asked.

They went to Orvis Hot Springs the next morning and became fast friends. In their early years of friendship, Johnson dragged Schum into the New Age art scenes in hippie-leaning communities of Colorado. Even so, the two were vastly different. Schum matured into an Ayn Rand-loving, orderly atheist, while Johnson believed in reincarnation, loved to wear makeup and was a chronic procrastinator. But they shared an immense conversational world, spending most evenings together on long phone calls. Their friendship, buoyed by cell signals, was largely bodiless.

Johnson played a vital role in her friend's life as they grew into adulthood. Schum's mother was emotionally and verbally abusive; her daughter believes she had some kind of personality disorder. She often made Schum feel as if she was responsible for her volatile and dangerous moods. After Schum dropped out of high school and left home, she began to exam-

ine her emotions. She learned to scrutinize them and file them into place, a technique she honed in years of counseling. It made her feel more in control than she ever did as a child. She could get carried away with analyzing herself, but conversations with Johnson helped her integrate the lessons of therapy into everyday life.

Johnson was diagnosed with bladder cancer in 2015. She elected to forgo medical treatment in favor of $6,000 sessions with alternative therapists and faith healers. But when her disease progressed to stage four, Schum knew she could no longer care for her friend over the phone. She drove the hour to Grand Junction, picked up her friend and moved her into her house in Hotchkiss.

"The group is a double-edged sword. One of the benefits is that we can talk about this, and we can put our crumbs of information together. But one of the cons of the group is it's overwhelming."

—Debbie Schum, talking about meeting with other people who believe they were victims of a body-brokering operation

It was the first time the friends had seen each other in over a month. Johnson's cheeks were sunken, and she could no longer sit upright. She lay in a hospice bed in Schum's study, looking out the window at the yard and listening to a chorus of wind chimes on the nearby porch. She kept her sense of humor, once asking a hospice nurse if she could bring Brad Pitt to feed her grapes and fan her with peacock feathers. But eight days after she moved in, she died, late at night, with Schum holding her hand.

The Sunset Mesa investigation put Schum in a position where she needed her friend more than ever. When she heard about a private Facebook group for alleged victims, she joined, hoping that others could help make the situation more coherent. Today, the group hosts some 400 people.

Schum became the de facto leader. She was active, squeezing updates out of the FBI victim specialists via text and posting them as fodder for frenzied theory building. The members pored over each other's cases, digging into the grim details of how their loved ones were possibly dismembered. "The group is a double-edged sword," Schum said. "One of the benefits is that we can talk about this, and we can put our crumbs of information together. But one of the cons of the group is it's overwhelming."

But it was only a virtual community. Schum wanted more than that, feeling that they needed a physical representation and an organized response to media requests. She posted about having a gathering. In September 2018, over 100 people assembled on a cloudless afternoon at Confluence Park in Delta, 20 miles north of Montrose. It was a central location for many while still avoiding Sunset Mesa itself. On the grass under an awning of ragged tree branches, the attendees, mostly women, passed around a microphone. They spoke about their loved ones.

In 2015, Judy Cressler's father died of lung cancer incurred after years of uranium mining; he called the disease "Charlie." He decided to donate his body to cancer research through Sunset Mesa.

A group of people from the Montrose, Colorado, area gather to talk about their experiences with Sunset Mesa Funeral Directors, now under investigation by the FBI.

The FBI told Cressler that her father's body was actually sold to a plastination company in Saudi Arabia.

Rick Neuendorf's wife, Cherrie, died on Dec. 11, 2013, on his birthday. When they met, Neuendorf was a police officer and Cherrie a crisis intervention counselor. They started dating after working on a call together. His family held a service for her at Sunset Mesa, and she was supposedly cremated. He later learned that her entire body was shipped somewhere unknown. As a cop, he blames himself for not noticing anything suspicious.

Terri Reid's husband, William, refused treatment for his cancer. They had discussed cremation and, since both of them loved fishing, decided that they wanted their ashes mixed in a tackle box that had belonged to Reid's grandfather. The FBI told her that, less than 24 hours after Sunset Mesa picked him up, his entire body was shipped out of their facility.

"We all have a different story about what we found out," Reid said later. "But, bottom line, it's all the same story."

The gathering was an event designed to redeem their grief, a funeral for all the funerals that had been nullified. It signaled a coordinated anger, and it helped Schum confirm that others shared her sense of living in a dream — something she both needed and feared.

We are willing to pay, often a lot, for the services scaffolding death. The National Funeral Directors Association reports that in 2016, the median cost of a burial service was $7,360. But in the past 10 years, the number of funeral homes in the country has steadily declined. Cremation's popularity is partially responsible.

Only in the 19th century did cremation find a footing as a business venture in the United States, advertising its utility, hygiene, progressiveness and secular nature. In the early 20th century, crematoriums flourished on the West Coast. The custom of scattering ashes soon followed. The right to scatter cremains proved controversial in state legislatures, with funeral home owners calling it a "deplorable vogue." They prophesied that the nation's public land would soon be carpeted in fragments of human bone. When legislation did pass, California, Alaska and Washington led the way. (Currently, Washington is also spearheading green burial, or "human composting.")

Today, about half of all people who patronize the funeral industry choose cremation. Western states, save for Utah, still cremate far more bodies than the rest of the country, with only Maine, Vermont, New Hampshire and Florida incinerating at similar rates.

Cremation is an economical choice — efficient, fast and relatively cheap. But the method holds transcendent meaning, even if traditional burial is still preferred by some of the nation's dominant religions. Religious historian Stephen Prothero, in his book *Purified by Fire*, writes that cremation in the U.S. could make mourning "more, rather than less, ritually dense and spiritually meaningful" than other options. If they're not scattered, ashes can be kept much closer to the family than they would be six feet underground. (One former Sunset Mesa customer, along with her sister, had what they thought were their mother's ashes tattooed into their skin.) While cremation allows a body to skip grotesque decay, it acknowledges that with death come many transformations.

The cadaver market works against change. It preserves corpses to be used aboveground multiple times, leaving the body neither alive nor in a state of vanishing. Death, both in the flesh and in a loved one's mind, is a process, but a preserved cadaver is eerily paused — long enough for the body to receive a price tag.

Marla Bishop of Crawford, Colorado, is one of the people the FBI contacted, but she doesn't spend much time in the online victims' group. In 2017, her uncle, Gary Goldman, who had dementia, moved into assisted living in nearby Olathe, a farm town known for its sweet corn. One day, Goldman escaped the facility. Five months later, hunters found his bones in a field a mile away. Goldman's remains found their way to Sunset Mesa. Bishop decided to cremate them, and what she thought were his ashes arrived in an ornate box that she described as "a tomb for a gerbil." Hess also catered Goldman's memorial service.

When Bishop dropped off the box at Colorado Mesa University for testing, she realized she felt differently than the others in the building. "I was more at peace than other people, because my uncle went back to the earth," she remembered. "I'm more spiritual, thinking that wherever he is, he went already. It was weird, having no attachment to those cremains."

Bishop knew that had her uncle not had five months to decompose, giving her five months to reckon with it, she would have been as shaken as the other families. "At this point, it's a novel," Bishop told me, "and all my heartache is gone."

In November, the university's forensics lab finished its tests. They divided the samples into groups of different-sized materials and carefully picked them apart, using pinpoint metal detectors. Then they released their findings.

Many people had theorized that the alleged cremains would simply prove to be unmixed concrete, or maybe cat litter. Instead, they were consistent with bone. After the results, Schum realized that she was even further from the possibility of closure.

The samples contained organic material, but families also received other results — dental fillings, jewelry fragments, Swiss Army knife parts and floral wire, none of which had belonged to the loved ones in question. Some suspect that Hess simply mixed materials in bulk, including ashes,

Dealing with death, by the numbers

20,557
Number of funeral homes in the U.S. in 2009

19,136
Number in 2019

16,100
By population, number of people per funeral home nationwide

32,185
Average number in the West

30,115
In Colorado

$7,360
National median cost for funeral with viewing, burial and ceremony in 2016

$2,419
National median cost for direct cremation and container in 2016

55.1%
Projected cremation rates in 2019 nationwide

69.7%
In the West

73.5%
In Colorado

8%
Percent of people in the East who prefer cremation, and who would choose to not have a ceremony

10%
In the South

18%
In the Midwest

20%
In the West

17.2%
Percent of funeral homes nationwide that offer pet cremation

SOURCE: NATIONAL FUNERAL DIRECTORS ASSOCIATION AND NATIONAL DIRECTORY OF MORTICIANS

The death certificate of LoraLee Johnson, which lists cremation as Sunset Mesa Funeral Directors' method of disposition.

and doled out scoops to her customers.

With no resolution and no timeline from the FBI, some of the alleged victims began acting on their own. So far, four civil suits have been filed. In one, the judge ordered Hess to pay nearly $500,000 to a customer named Julee Glynn, and the court found Hess liable in civil law for the body-brokering claims. One class action suit named a swath of defendants — including Hess and her family; David Haisman, owner of the Four Corners Cremation & Burial Society; the hospice company Schum used and multiple potential cadaver buyers. The suit also named Montrose County Coroner Thomas Canfield, alleging that he had deliberately directed bodies to Hess for a cut of the profits. Canfield would not comment on the ongoing case, and other defendants have denied the charges and sought dismissals.

Montrose, meanwhile, remains in limbo. The FBI investigation continues, but its details are obscured, and the alleged victims often feel isolated with the information they have.

"As a journalist, I've covered many events that are related to tragedies," Erin McIntyre told me. McIntyre, who now owns the *Ouray County Plaindealer*, is a former Grand Junction *Daily Sentinel* reporter. She began looking into Hess in 2016, uncovering the complaints amassed by the Department of Regulatory Agencies. When children die or drunk-driving accidents occur — even when a serial pet poisoner struck Grand Junction — people usually respond by holding candlelight vigils. "But I have to say, I'm not sure if it's the nature of the accusations," she said of Sunset Mesa, "but I am a little surprised that we haven't seen some sort of community acknowledgement." Other than the September gathering at the park, there has been little public reckoning. Some in and around Montrose still refuse to believe this happened. Last Thanksgiving, McIntyre's cousins, who read her articles, wondered aloud whether it was "fake news."

In March, the Sunset Mesa building was sold to Life Choices Family Resource Center, a Christian group that provides pregnancy and sexual health services. "We feel like we're bringing life where there wasn't life," Executive Director Gigi Bechthold told the *Montrose Daily Press*.

But Hess still lives in Montrose, and residents sometimes confront her. She has maintained a defiant stance. Recently, representing herself, she filed a motion for dismissal in one of the civil suits, writing that "no matter how sensational the accusations … there is only one thing that matters. Evidence."

People convicted in criminal cases involving body brokering have received as much as 20 years in prison. This March, a U.S. representative from Illinois introduced a bill that would give the secretary of Health and Human Services oversight over entities dealing with non-transplant tissue. "Body brokers have made an untold amount of money at the expense of grief-stricken loved ones," Illinois Rep. Bobby Rush, D, the bill's sponsor, said in a statement. "By introducing this legislation, we are sending a clear message that this practice is unacceptable."

On the private Facebook group, some have discussed getting together to mingle the anonymous ashes and scatter them as a group. Even though the materials Schum turned in are still with the FBI, the other samples feel like proxies for Johnson. To Schum and others, it felt somewhat healing to know that the families took care of someone's ashes, no matter who that person was. "We have decided that, one way or another, we are going to treat these cremains with the respect that they deserve," she said.

I visited Schum in early April at her home. The sky threatened to thunderstorm over her acre of land, tucked into layered hills of juniper, but it never did. Recently, Schum had paid off her house and closed Johnson's estate, both important strides. But she was still going to sparsely attended victims' group meetings, and, when I arrived, had an article about one of the lawsuits open on her computer in the room where Johnson died.

Most people touched by the Sunset Mesa investigation are not like Schum. They do not spend their time digging into the details or going to meetings. They talk to attorneys rather than journalists, or they talk to no one at all. I spoke to a former funeral home owner in the region who said that, in his view, some of the alleged victims are too fixated. "So much so, that my professional opinion of their constant need to be personally noticed and recognized by media, and overall lack of focus on moving forward, had crossed over to what we in the death care industry call 'complicated grieving,' " the funeral home owner, who asked to remain anonymous, wrote me. "I see their behavior now as 'obsessive' when it comes to being recognized and sympathized for themselves, when really a healthy grieving process, by now, would be at the stage of 'acceptance.' "

Schum, though, sees her attitude as her most truthful way of grieving. It reflects what's happening in her head. She still believes in confronting whatever's there, the way she used to do when talking to Johnson. "I have to deal with this in my own way," she said. "Don't tell me to shrink that when I can expand it."

Part of that process is recognizing what can't be entirely overcome. She frequently recalls her first meeting with Agent Busch and the way it damaged her "sense of wanting to be prepared for, even to prevent" incomprehensible experiences. Losing control of herself seems to haunt her as much as the memory of what she learned that day. "I don't want that kind of thing to ever happen again in my life, but it's going to," she said. "I know it's going to."

We walked around her backyard under an approaching ceiling of dark blue clouds. She identified the plants we passed — lavender, forsythia, daffodils — with an eager focus. Little could be seen from her property other than more juniper, more hills and the snowy peaks rising past them. Only one other person came into view: a man driving a red tractor into his driveway across the road. Schum pointed to him and told me that he was also an alleged victim of Sunset Mesa. So is the person who used to own her house. Her world is calm, private and cultivated, but it is permanently laced with the new reality.

I wondered what role Johnson played as Schum gradually integrated the Sunset Mesa case into her life. "I don't know, and that's what bothers me the most," she said. She's been missing her friend more, which, while painful, seems like a start. The loss of Johnson — the being, not the body — is being allowed to surface. When Schum talked about it that day, it was the first time I had ever seen her cry.

Recently, Schum had a dream. In it, she was helping Johnson move into a new house. She glanced down at her friend's feet. One of them was missing. The next time she looked, Johnson's lower leg had vanished, and then both of her hands.

"Lora, where are your hands?" she asked. As in some of her previous dreams, Schum hoped that Johnson would be able to communicate with her, to tell her where she had gone, where to find her. But her friend could only look at her and say, "I don't know." ■

Elena Saavedra Buckley is an editorial fellow at *High Country News*.
@elenasb_

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

Notice to our advertisers: You can place classified ads with our online classified system. Visit hcn.org/classifieds. June 7 is the deadline to place your print ad in the June 24 issue. Call 800-311-5852, or email laurad@hcn.org for help or information.

BUSINESS OPPORTUNITIES

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

EMPLOYMENT

Experiential Education Intern/ Assistant – Actively introduce students to experiential education, outdoor recreation and sustainability while engaging and challenging them to learn and participate in these diverse opportunities. Room, board, salary; starts August 2019. Contact: joel.barnes@wasatchacademy.org.

Curator – The Draper Natural History Museum (DNHM) at the Buffalo Bill Center of the West in Cody, Wyo., invites applications for Curator of Natural Science. Seeking a dynamic leader to engage multiple entities in furthering the story of the Greater Yellowstone ecosystem. The curator manages operations, exhibitions, educational programming, research/collections development and care of the DNHM. Competitive salary ($70,000-$80,000) and full benefits package. EOE. Job description at https://centerofthewest.org/. To apply, submit a letter of application, cover letter and résumé to terryh@centerofthewest.org. 307-578-4089.

Chief Executive Officer at RCAC. See the full description at https://bit.ly/2WJ3HvY. Apply at RCAC@marcumllp.com.

Executive Director – Forever Our Rivers Foundation seeks a driven and creative individual to lead this national movement for river health. Deadline: June 14, 2019. www.foreverourrivers.org.

Mountain Oven Organic Bakery – Hiring part/full-time for summer season. Entry level and experienced positions. Year-round employment for optimal candidates. Pay DOE. 970-765-7130. bread@mountainoven.com.

Lead Forester – Northwest Natural Resource Group seeks forester based in Seattle or Olympia, Wash., area to manage our ecological forestry harvest program. Full description at nnrg.org.

Sierra Club Senior Campaign Representative, Beyond Dirty Fuels – We are looking for an experienced campaigner to lead our work challenging the oil and fracked-gas industry, specifically focused on fighting fossil fuel expansion in Texas, New Mexico and Colorado. To apply, please visit the link below. No phone calls, please. https://chm.tbe.taleo.net/chm01/ats/careers/v2/viewRequisition?org=SIERRACLUB&cws=39&rid=1335.

Vice President of Programs and Strategy – Western Resource Advocates is looking for a vice president of Programs and Strategy to bring a strategic focus to the development of multi-faceted advocacy plans that leverage changes in clean energy, healthy rivers, Western lands, and air- and water-quality policy throughout the interior West. Competitive salary and excellent benefits package. Vice president is based out of WRA's Boulder, Colo., office. Complete job description, including information on how to apply, can be found at www.westernresourceadvocates.org.

Executive Director – Badlands Conservation Alliance is seeking an Executive Director. For job description, visit https://www.badlandsconservationalliance.org/hiring.

BADLANDS CONSERVATION ALLIANCE

MERCHANDISE

San Juan Metals – Metal roofing and siding, thru-fastened and seam profiles. Stronger, more attractive and longer lasting than any other panel on the market. 970-275-4070.

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

John Deere snow blower, 24" – Newly refurbished and tuned. Older model, great condition. Gasoline engine. Chains on tires. Heavy-duty for mountain snow. Call cellphone and leave message or email. 303-594-7909. mpietras09@aol.com.

Lunatec Hydration Spray Bottle – Clean off, cool off and drink. Multiple spray patterns. Better than you imagine. Try it. www.lunatecgear.com.

PROFESSIONAL SERVICES

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

Live On Site – Hands-on Caretaker/ Property Manager with six-plus years of experience, broad knowledge of home and facilities maintenance. 207-805-4157, https://spark.adobe.com/page/8R7Ag/.

PUBLICATIONS AND BOOKS

The Book of Barley – Collector's item! The story of barley, the field crop; 50 years of nonfiction research. www.barleybook.com.

REAL ESTATE FOR RENT

Coming to Tucson? Popular vacation house, furnished, two bed, one bath, yard, dog-friendly. Contact Lee at cloler@cox.net or 520-791-9246.

Partnership-Lease – Seeking full-time experienced farmer on 52-acre organic farm Union, Ore. manager@dorasgarden.com.

REAL ESTATE FOR SALE

Million-Dollar View from a beautiful log home. 20-acre private parcel in the sunny Okanogan of Washington state. Visit: www.juliedubois.ca/house. Inquiries: singingjuliedubois@gmail.com.

Spectacular scenic mountain view homebuilding site – Located on top of Sugarloaf Mountain. Five miles west of downtown Colorado Springs, Colo. $80,000. neal@carbon-xl.com.

Country Estate near Kings Canyon/ Sequoia Parks – Spectacular views of snowcapped Sierras, 15 miles from Kings Canyon/Sequoia Parks. 47 acres with two homes, 75-foot pool, gym, patios, gardens. 1,670 square-foot main home has three bedrooms, one bath, built 2008. 1,163 square-foot guest house, two bedrooms, one bath. 559-917-3040 nmcmanus@c21mm.com. http://EscapeToTheCountry.c21.com.

Everland Mountain Retreat – 300 acres with mountaintop lodge. Nonprofit relocating. www.everlandmountainretreat.com.

Gila National Forest, N.M. – Beautiful off-the-grid passive solar near the CDT. 9.4 acres, north of Silver City. Sam, 575-388-1921.

Beautiful and undeveloped 40 acres near Dolores in southwest Colorado. $60,000 plus costs. Contact: haydukestilllives@yahoo.com.

TOURS AND TRAVEL

Copper Canyon, Mexico – Camping, hiking, backpacking, R2R2R, Tarahumara Easter, Mushroom Festival, www.coppercanyontrails.org.

Tantoo Cardinal shines in the new film *Falls Around Her*

Tantoo Cardinal plays Mary Birchbark, a disillusioned musician who returns to where she grew up. AMANDA MATLOVICH

Mary Birchbark is tired of performing. When we first see her in Darlene Naponse's newest film, *Falls Around Her*, she is backstage, prepping for a rock concert. She emerges to sing to a packed concert venue, but something is amiss. She heads backstage, ditches the venue and quickly escapes without telling a soul. Anyone who's ever tried to run from messy entanglements knows it's never that easy. The past has a way of making sure it will be dealt with.

Mary is played by accomplished Métis actress Tantoo Cardinal, who, at this stage in her career, is at the top of her game. Indigenous women in film are frequently written as stereotypes: strong and matriarchal, women of virtue, either the backbone of the family or a hopeless wreck. Cardinal herself has played many of these roles, from the faithful Black Shawl in 1990's *Dances with Wolves* to Arlene Joseph, a woman trying to get her life together in 1998's *Smoke Signals*. But Naponse, who is Anishinaabe, gives us a different take, this time showing an older Indigenous female artist in the midst of a nervous breakdown, who still maintains agency and a complex inner life. She's not taking care of others or dispensing lessons. She has her own stuff to work out, and it's fascinating.

After abandoning the show and her life on the road, Mary returns to the Atikameksheng Anishnawbek First Nation Reserve in northern Ontario to recharge in isolation. Her family, however, has other plans. They want to restore Mary to their idea of well-being, but they don't completely understand where she's coming from. Mary isn't like them. She's determined to regroup and refocus her life in private, and no one will leave her alone. Mary explains to her sister, "I've got this process." Her sister replies, "Is it working?" To which Mary quickly replies, "Not really."

Sex is seldom touched upon in Indigenous cinema, and it's refreshing to see how Naponse and Cardinal handle it in the film. There is a masturbation scene, a rarity for female characters in cinema, much less for an Indigenous character, and it's a bold choice that can and should be developed further by other Indigenous filmmakers. Native people have sex, too, sometimes by themselves. Additionally, Mary has at least two (white) lovers, and a possible Indigenous third (Albert, played by Johnny Issaluk), who keeps knocking, attracted by her talent and complexity. The fact that her lovers are white is not commented on, because, well, it doesn't need to be. Rare is the chance to see an Indigenous woman own her own sexuality in film.

It's inspiring to watch Cardinal shine front and center throughout the film. When you see her on screen, there's a sense of wonderment in Cardinal's eyes: They hint at unspeakable pain and yet convey perseverance, with a hint of anticipation. She is impossible to look away from.

Cardinal's performance in *Falls Around Her* is in direct conflict with the simplistic way the general public generally wants to see Indians, or believes it knows them. People like Mary Birchbark are not here to provide guidance or offer sage wisdom. She is trying to find her way, just like everyone else. Her very existence reveals that the inner life of Indians can be just as messy as anyone's — maybe even messier.

I would be remiss if I did not note an unfortunate instance of cliché sound design: the requisite sound of a rattle during a tense scene. As an Indigenous viewer of Indigenous films, I am averse to several things, three of them being eagle cries, flutes and rattles. They always take me out of the story. These tropes have been used by non-Native filmmakers for decades and, unfortunately, adopted by many Native filmmakers. You could argue that these sounds are real things in Indigenous communities and that maybe we should reclaim them. You wouldn't get an argument from me, if it were done correctly, but it is difficult terrain to navigate. Until we figure out how to use these sounds wisely, we should declare a moratorium.

In the end, Darlene Naponse has created a rite-of-passage film with an elegant protagonist who remains in my memory. Mary Birchbark is a thoroughly developed Indigenous female character, and Cardinal's understated and efficient performance is the kind that only a professional at her level could do. When an Anishnaabe man asks Mary outside of a market, "Why did you stop singing?" Mary simply replies, "I was tired." Sometimes you just get tired, and you don't owe anyone any answers. □

Jason Asenap is a Comanche and Muscogee Creek writer and director (and an occasional actor) based in Albuquerque, New Mexico.

Life below the poverty line

When she discovered that she was pregnant, Stephanie Land ripped up her application for the University of Montana's creative writing program. Yet her dream of being a writer in Missoula endured, shining like a beacon above the daily grind of poverty she now found herself trapped in as a single mother. She yearned for Missoula, a laid-back, picturesque college town, but knew that good-paying jobs there were hard to come by, and housing costs disproportionately high. She told herself that, once in Montana, she could reinvent herself and set an example for her daughter by becoming "the person I expected myself to be."

But it would be years before Land managed to escape. Her debut memoir, *Maid: Hard Work, Low Pay, and a Mother's Will to Survive*, takes place mostly in Washington's Skagit County, a rural area north of Seattle. Like many of its Western counterparts, it suffers from the ripple effects of a nearby big city's lack of affordability without any of the benefits of urban living — reliable public transportation and a geographic concentration of jobs and amenities — that can help offset housing costs.

Land gives little more than a paragraph to her decision to have a child, and it can be tempting for the reader to judge her choices. But Land's openness highlights the injustice of our culture's eagerness to criticize the personal decisions of poor people, particularly of women. (How many women are judged equally harshly for *not* having children?) Poor women have it especially hard; at least their more privileged sisters have a chance of keeping their private lives private. Often it's only the maid who sees the struggles they hide from the world.

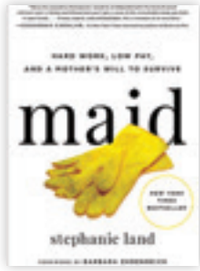
Land's intimate first-person perspective sets *Maid* apart from other nonfiction about poverty in America. Readers who have never lived close to the poverty line or navigated the maze of public-assistance programs will have their eyes opened by Land's careful breakdowns of her household budget and her maddening dealings with bureaucracy. A sense of deep loneliness often left her aching for a normal life, for the person she used to be or could have become. "I was starved for kindness," she tells us. "I was hungry for people to notice me, to start conversations with me, to accept me. I was hungry in a way I'd never been in my entire life."

Land experiences the invisibility common to poor people in America: Cleaning houses, she works like a ghost in homes while the owners are away; in the waiting rooms of government offices, she is nothing but a number in the system; when she buys groceries with her EBT card, customers and cashiers dismiss her as just another lazy food-stamp recipient. But in other settings, her poverty itself is invisible: "People I talked to rarely assumed I needed food stamps to survive, and they always said 'those people' in conversations. Yet 'those people' were never people like me. They were immigrants, or people of color, or the white people who were often referred to as trash. When people think of food stamps they don't envision someone like me … Someone like a neighbor. Someone like them."

With 42 million people — about one in eight Americans — currently receiving food stamps, there's a good chance many of them are your neighbors; maybe you're one of them. Under President Donald Trump's proposed 2020 budget, nearly a million people would lose their food stamps altogether, and almost everyone would see their benefits reduced. The budget guts several other programs that were vital to Land and her daughter's survival: housing vouchers, the Low-Income Home Energy Assistance Program, Medicaid. In showing how much poor people rely on these programs to survive, Land exposes the injustice of a rigged economic system that uses government assistance as both a political football and a Band-Aid for systemic inequality.

"My paychecks made me feel like I didn't work at all," Land writes. She's not alone: Today's low unemployment rate obscures the number of Americans joining the ranks of the working poor. Of the 58 percent of adult workers who receive hourly wages, one-third earn less than $12 an hour, and nearly half make less than $15. Land made $9 an hour cleaning houses, and took home only about half that after the cost of the gas it took to get to work.

Many Westerners live in the places we do because of a strong sense of shared values: access to open space, investment in local economies, vibrant creative culture, the perpetual promise of starting over. But the growth of inequality in these sought-after communities threatens to destroy that promise for more and more of our neighbors. *Maid* invites us into one of the real lives hidden behind the statistics, prompting us to consider what this loss of opportunity means, both for our communities and our collective conscience. BY CLAIRE THOMPSON

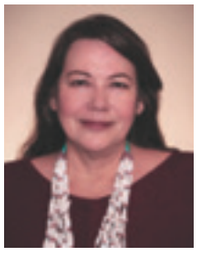


Maid: Hard Work, Low Pay, and A Mother's Will to Survive
Stephanie Land
288 pages, hardcover: $27.
Hachette Books, 2019.

A self-portrait of Stephanie Land and her daughter, Mia, in their Mount Vernon, Washington, studio apartment. COURTESY OF STEPHANIE LAND

" 'Those people' were never people like me. They were immigrants, or people of color, or the white people who were often referred to as trash. When people think of food stamps they don't envision someone like me … Someone like a neighbor. Someone like them."

Tribe-owned media are slowly gaining independence



NEWS COMMENTARY BY JODI RAVE

Jodi Rave is the executive director of the Indigenous Media Freedom Alliance, a nonprofit media organization that advocates for freedom of information and independence of tribal media. The IMFA also publishes www.buffalosfire.com.

WEB EXTRA
Read more from all our commentators at **www.hcn.org**

We welcome your feedback. Send letters to **editor@hcn.org**

Grand Ronde tribal citizen Mia Prickett used to assume she was reading unbiased reporting in the tribe's newspaper, *Smoke Signals*. But all that changed when the tribal council disenrolled her and more than 80 of her relatives in 2013, effectively taking away their tribal citizenship.

"I had no reason to think that council or anybody had an undue influence on the paper," Prickett, then a journalism student at the University of Oregon, said. She describes herself as naive for believing that the tribe's newspaper reported all the facts and considered different points of view. She was proved wrong when *Smoke Signals* failed to tell her family's side of the story.

Grand Ronde tribal leaders have come a long way from dictating news content in the tribal newspaper. In December 2016, the tribal council passed an independent press ordinance, making it one of just three tribes the Native American Journalists Association, or NAJA, recognizes for having a viable press ordinance. (Full disclosure: *HCN* Associate Editor Tristan Ahtone is president of NAJA and was not involved in the editing of this story.)

A majority of Native media outlets are owned by tribal governments. That is problematic, because ownership means tribal leaders can, and often do, control content. In a 2018 NAJA press freedom survey, 83% of respondents said stories about tribal government affairs sometimes, frequently or always go unreported due to censorship.

Chris Mercier was among the Grand Ronde tribal members who noticed *Smoke Signals'* failure to tell the full story about the disenrollments. Mercier, who earned a journalism degree from the University of Oregon in 1998, became a key advocate for tribal press freedom and was elected to the Grand Ronde Tribal Council in 2004.

In March, Staci Cummins and Anne Loyer, two students, from Harvard University's Nation Building class, and I discussed freedom of the press with the Grand Ronde editorial board and staff. The tribe's disenrollment debacle ultimately spurred the paper to seek independence.

Smoke Signals editor Dean Rhodes remembers the pre-ordinance days, when he followed council leaders' orders just to keep his job. "If we had written any story that would have even been close to being viewed as sympathetic to the cause of Mia's family, Siobhan and I would have probably been fired," he said. His comment led the editorial board members seated at the table to erupt in laughter. "I don't even think that's probably," said Prickett. "I would say that would be 100 percent."

The Grand Ronde independent press ordinance declares that *Smoke Signals* must be "free from any undue influence, and free from any particular political interest." The ordinance, which was enacted 29 months ago, has kept council members and administration staff from interfering with content. "They've been totally taken out of the equation," Rhodes said.

Editorial board member Monty Herron recalled adjusting to the new independence, reminding council members: "Hey, by the way, you guys need to hire your own publicist again, because we're not doing your job for you anymore," said Herron. "We're not going to be the mouthpiece of the council." In 2018, the tribe hired its own deputy press secretary.

The influence of tribal leaders on tribe-owned media is apparent in a number of cases, according to a preliminary Red Press Initiative survey from 2018. In reply to a question about how government officials influence media coverage, one person wrote, "Tribal officials have complete control over our tribal media." Another noted: "Again, a lot of news is pretty much censored by tribal administrators and entities. We need more independent journalists who can report on the news without watering down stories or following the dictates of tribal governments."

One example of an independent press is the *Navajo Times*. I recently interviewed *Navajo Times* Editor Tom Arviso about freedom of the press and his role in securing editorial and financial independence from the Navajo Nation Council. The newspaper now stands as an independent, for-profit corporation of the Navajo Nation, paying its own bills through advertising revenue, subscriptions and display ads. "It's not the government that owns the paper," said Arviso. "It's the Navajo people."

> "A lot of news is pretty much censored by tribal administrators and entities. We need more independent journalists who can report on the news without watering down stories or following the dictates of tribal governments."

May marks Arviso's 31st year of employment at the *Navajo Times*. In the course of his career, he has faced bomb threats, been physically threatened, been suspended — even seen the newspaper shut down for months. He and his staff have reported on tribal corruption, including the imprisonment of former Navajo Chairman Peter MacDonald, who was convicted of riot, bribery, fraud, extortion and corruption.

*The New York Time*s described the *Navajo Times* as an "aggressive newspaper" whose stories led to the resignation of Navajo Chairman Albert Hale in 1998. Hale faced potential criminal charges for misspending tribal money.

Grand Ronde tribal leaders took a critical step to better inform their tribal citizens with uncensored news when they enacted an independent press ordinance. By doing so, they have raised their level of accountability to those who matter most — the tribal citizens who elected them. □

WHY BUILD WHAT WON'T LAST?

To make the most durable work denim possible, we turned to the strongest lightweight fiber in the world.

The newest addition to the Patagonia Workwear line, our Steel Forge Denim blends 92% organic cotton with 8% Dyneema®, a fiber that's light enough to float on water but 15 times stronger than steel. It's used in crane slings, tow ropes and anchor cables, and now it's helping us fuse a traditional fabric with advanced technology to build a more durable material that will withstand years of demanding work.

Timber framer Bodie Johansson chisels out floor joist housings in the Handcrafted Log & Timber yard in Ridgway, Colorado. **BLAKE GORDON** © 2018 Patagonia, Inc.

patagonia®

Dyneema content more than doubles the fabric's tear strength, and the organic cotton is Texas-grown

Hammer loop and large drop-in utility pockets hold small tools and larger phones

Double-fabric knees accommodate knee pads, with bottom openings that allow easy cleanout

Dyed with natural indigo grown in Tennessee, replacing petroleum-derived synthetic dyes

Men's Steel Forge Denim Pants

IDAHO

"If you've ever dreamed of living in the starchy goodness of a potato — who hasn't? — that dream could soon become a reality," reports *Esquire*. Kristie Wolfe acquired the oversized spud from the Idaho Potato Commission after it spent a few years traveling around the country on a flatbed to promote — what else — the virtues of Idaho potatoes. Now that Wolfe has equipped the spud with air conditioning, an indoor fireplace, bathroom and a queen-size bed, the Airbnb is "not the worst potato you could stay in," says writer Justin Kirkland. Wolfe has developed other specialized tiny homes, including a tree house in Hawaii and what she calls a "Hobbit Hole." In Boise, she has planted her latest house on 400 acres of farmland, where it stands alone in serene and stately spudliness.

CALIFORNIA

When it comes to skydivers, those people who routinely fall out of planes on purpose, "daring" doesn't begin to describe them. Dion Callaway, 39, for example, had to have his left leg amputated below the knee after a botched landing in California's Sonoma County severely injured his foot and impeded his jumping. But Callaway, who has parachuted hundreds of times and who says he loves the "sensation of floating," continues to skydive wearing an artificial leg, the *Washington Post* reports. On a recent leap into space at 10,000 feet, however, a gust of wind yanked off his prosthesis, and though he landed successfully on one leg, he then had to spend the day searching for the missing limb: "I didn't think I was going to get it back." But good luck found him, and the prosthetic — in good condition — was discovered at a lumberyard. Callaway said from now on he'll make sure his prosthetic is securely fastened, although "landing on one leg, he has proved, isn't out of the question."

WYOMING

A controversial outdoor sculpture that was hastily removed from the University of Wyoming campus in 2011 was briefly re-created at what organizer Mike Selmer called "a rally for truth and action on climate change." *Carbon Sink* was created by British artist Chris Drury, who used beetle-killed trees to form a 279-square-yard vortex with a pile of coal at its center, thereby suggesting how climate change and shriveled forests were in part driven by coal. According to *Wyofile*, public documents acquired by journalists revealed that coal company bosses and politicians pressured university officials to remove the sculpture. University of Wyoming professor Jeffrey Lockwood wrote an award-winning book about the kerfuffle, *Behind the Carbon Curtain*, which thoroughly documented the industry's efforts at censorship. Dan Mitchell, a former art curator at Casper's Nicolaysen Museum, praised Wyoming journalists for revealing what he called "the university administrators' clumsy lies and the bone-headed, angry and intellectually dishonest cacophony of legislators' voices. …" Lockwood, however, warns that the battle against academic censorship is far from over. The university's trustees have passed a new regulation, he said, that allows for the firing of even tenured faculty who speak out. Reasons for dismissal include "insubordination (and) discourteous treatment of other employees, students or the public. …"

MONTANA **A meaty opportunity for entrepreneurs.** PAUL J. RANA

ARIZONA

When a river makes a U-turn and appears to almost reverse course, it's a marvel to behold. You used to be able to watch the Colorado River do that at an undeveloped local spot called Horseshoe Bend, off a dirt road outside the town of Page near the Utah border. Then, about six years ago, visitors started sharing their photos on social media, particularly Instagram, and that drew tourists from all over the world to seek out Horseshoe Bend. According to the Associated Press, 2 million people now visit the site annually. The swarms of people led Page officials to recently complete a 160-space parking lot — another 140 spaces will soon follow — and charge drivers at least $10 to enter. Though Horseshoe Bend lies within the Glen Canyon National Recreation Area, like all federal land facilities it has a paltry budget. Page has so far spent $5 million on safety and other improvements, and the city intends to spend even more, adding restrooms and a visitors' center. Recent comments by a London tourist reveal why the crowds at Horseshoe Bend will most likely increase: Online research inspired the traveler to come see Horseshoe Bend for himself, he said, because it was listed as "one of the region's must-see places." And his five-day visit, he said, was even "better than the pictures."

CALIFORNIA

At the height of this spring's wildflower burst in Death Valley National Park, Birgitta Jansen was hiking one of the trails when down at her feet she saw a panamint red rattlesnake rising up, ready to strike. "She was beautiful, sleek, muscular and healthy looking," she wrote in the Sierra Club's *Desert Report*. "I was mesmerized." But after Jansen moved back while calling out to her husband to bring his camera, the rattler vanished. In retrospect, she says, her urge to capture the snake by taking photographs of it was a mistake, one she'd try not to make again: "I wish I had just allowed myself to be fully engaged with the magic of the moment."

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

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

High Country News
For people who care about the West.

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

U.S. $5 | Canada $6