

High Country News

For people who care about the West

Chainsaw Diplomacy

In Utah's Escalante watershed,
a river restoration group
tries to cut through
old cultural barriers

By Scott Carrier
Page 12



How deep is your love?



"I love the land, and it's different from an environmentalist's love. We have a deep, abiding love; they have a weekend love affair. Their love is intense and passionate, but it's not an abiding love. That kind of love comes from making a living off the land."

When Garfield County, Utah, Commissioner Louise Liston said this to me in 1996, I was pretty sure she'd pegged me as one of those one-night-stand environmentalists. We were discussing the new 1.9 million-acre Grand Staircase-Escalante National Monument that President Bill Clinton had created a few months earlier. It was an exhilarating moment for the West's conservation community, but Liston and most of the other locals I spoke to in the tiny town of Escalante — some of them direct descendants of the Mormon pioneers who settled southern Utah's canyon country a century ago — hated it.

They resented what they called a government "land grab" — even though the monument was already federally owned — partly because it killed a planned coal mine with good-paying jobs. They feared environmentalists would take away their grazing rights. Perhaps most of all, they hated that the monument would attract outsiders with different values, turning their world upside down.

Over the ensuing 19 years, *High Country News* has periodically revisited Escalante country to see how the post-monument drama is unfolding. Parts of the plot have played out predictably: Visitors have increased dramatically, some newcomers have moved into town, and there has been friction over cattle grazing and motorized recreation.

But there have been a few twists. One was the formation more than five years ago of a local watershed group that explicitly seeks to bridge the divide between old-timers and newcomers through restoration projects. When the writer of our cover story, Scott Carrier, interviewed the non-Mormon leaders of the Escalante River Watershed Partnership, he found that they are still struggling to get most Mormon ranchers to participate in their practical river-restoration efforts, which include removing invasive species such as Russian olive. Carrier's thesis — that the distrust between ranchers and conservationists exists because they have "entirely different cosmologies, or answers to the questions of where we come from, why we are here, and where we are going" — is likely to resonate with many who have lived in the West's small rural communities. But his reporting also reveals that, like the early Mormon settlers, some of the so-called "outsiders" have dug in for the long haul, working the land in new ways to make a living. Year by year, project by project, they are developing a deep abiding love that could lead to a new relationship with the old-timers and the magnificent landscape they both inhabit. Sometimes we forget that even the old-timers' families were newcomers once.

—Paul Larmer, executive director/publisher

The Escalante River from high above Scorpion Gulch in the Glen Canyon National Recreation Area.
ACE KVALE



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In southern Utah's Escalante watershed, a river restoration group tries to cut through old cultural barriers
By Scott Carrier

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COVER
A Utah Conservation Corps member wields a chainsaw during training with the Escalante River Watershed Partnership, in a program to remove invasive Russian olive trees. JACOB W. FRANK PHOTO
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National forests to decide where snowmobiles are welcome

A new rule requires the government to specify areas for winter motorized users, reports Krista Langlois. hcn.ws/snowmobilers

JOIN THE CONVERSATION
“I have a neighbor who heats with wood year around. He said, ‘If you want clean air, you got to pay me to quit.’”

—Dale Lockwood, commenting on “Utah burn ban ignites outrage over ‘basic freedoms’” hcn.ws/burnbans



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"Just like Yosemite or the Grand Canyon, the Arctic National Wildlife Refuge is one of our nation's crown jewels, and we have an obligation to preserve this spectacular place for generations to come."

—Interior Secretary Sally Jewell, defending a conservation plan to set aside more than 12 million acres in the refuge as wilderness.

"I cannot understand why this administration is willing to negotiate with Iran, but not Alaska. But we will not be run over like this."

—Alaska Sen. Lisa Murkowski, chair of the Energy and Natural Resources Committee, prior to adding amendments to the Keystone XL bill that would strip roadless protections from 17 million acres of public lands.

UNNATURAL DISASTERS

Built to spill

The pipelines that carry wastewater away from North Dakota's oilfields often leak — sometimes with devastating consequences

Joanne Njos noticed something was wrong with Blacktail Creek in late September. The water had turned a rusty orange. In mid-November, when temperatures dipped below 20 degrees for nearly two weeks, the creek didn't freeze. Weeks later, Njos dipped her finger in the water and tasted it. It tasted like "pure, pure salt," she said, "worse than table salt." She brushed her teeth immediately.

Njos and her husband, Larry, live on a farm encircled by pumpjacks about 20 miles north of Williston, North Dakota, the heart of the Bakken oil boom. Initially they suspected that the Army Corps of Engineers, which they'd heard was fiddling with an upstream dam, was responsible for the changes in the creek rather than the oilfield. Then, on Jan. 7, a man from Summit Midstream, a pipeline company, knocked on their door. He said workers had detected a major break in a gathering line, which carries wastewater away from oil wells. Nearly 3 million gallons of salty, oily wastewater had spilled into Blacktail Creek — as much as spilled in North Dakota throughout the previous year. The incident was eclipsed in the

BY EMILY GUERIN



Cleanup continues in North Dakota, where 2.9 million gallons of drilling wastewater leaked from a pipeline into Blacktail Creek. ANDREW CULLEN/REUTERS

news by the pipeline that leaked oil into Montana's iconic Yellowstone River the same month, although this spill was as much as 100 times bigger.

Three weeks after the spill was detected, Njos walked Blacktail Creek, the sun glaring off melting snow. She pointed out a telephone pole, gnawed by beavers, and said that she and Larry used to bring logs to the creek, because they felt bad for beavers living on the treeless prairie. "I never even thought about the spills before," she said. "It never affected us."

Large pipeline spills are not uncommon in North Dakota. But watchdogs say it doesn't have to be that way. "I think everyone in the industry agrees the ultimate goal is zero incidents," said Carl Weimer, executive director of the nonprofit Pipeline Safety Trust. "But they're not doing everything they could to (get) to zero."

"Produced water" or "saltwater" is a waste product of oil production. In 2013, North Dakota's 10,000 or so oil wells produced more than 15 billion gallons of it. Some comes from the fracking process, but some is sucked up from briny aquifers with the oil.

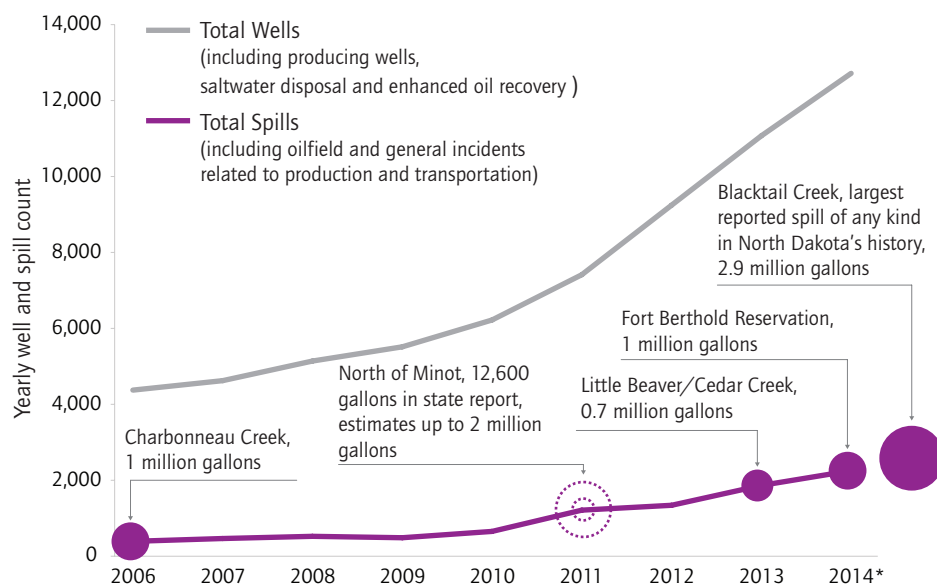
What's in wastewater can vary with local geology. In North Dakota, the water is over 13 times saltier than ocean water and laced with fracking chemicals, oil and radioactive material. It gets separated from the oil and is either trucked or moved by pipeline to an injection well, where it's pumped back underground.

Most of the time, the process works like it's supposed to. But spills are becoming increasingly common. According to an analysis by the public media team Inside Energy, the spill rate per well was nearly twice as high in 2013 as it was in 2006, at the start of the boom. The rise seems to be a function of increased drilling and the ongoing rush to lay thousands of miles of new pipelines in a short construction season, which can result in sloppy installation practices.

The spills are also getting larger, which worries Derrick Braaten, a Bismarck-based lawyer who represented ranchers affected by the state's first million-gallon-plus wastewater spill, in 2006 in Charbonneau

Please see **Spills**, page 5

Wells and spills in North Dakota, 2006 to 2014



JORDAN WIRFS-BROCK. DATA SOURCES: NORTH DAKOTA DEPARTMENT OF MINERAL RESOURCES; NORTH DAKOTA DEPARTMENT OF HEALTH; NEW YORK TIMES. * NOTE: 2014 DATA IS PRELIMINARY.

North Dakota well counts have surged; spill counts and quantities have gone up even faster. In 2006, there was one spill reported for every 11 wells; in 2013, one spill for every six wells.

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DECENT LANDOWNERS

Michelle Nijhuis suggests that accelerating Aldo Leopold's land ethic and "voluntary decency" can help us meet the challenges of the modern West ("Where's Aldo?" *HCN*, 1/19/15). I would offer that the first step is to recognize and support implementation of this ethic where it already exists and to understand that doing the "right thing" for the land can require more than just good intentions.

For 16 years, I had the opportunity to manage a ranch for landowners who shared Aldo Leopold's land ethic. Our management plan was designed to improve ecological health, restore natural processes, and to help develop and spread the knowledge needed to manage working lands profitably and sustainably.

However, in a time when many of our natural systems and landscapes have been dramatically altered, and when we depend on the products and services the land provides, it's not always clear what "the right thing" is. The science is imperfect and continually evolving. Owning, managing and restoring land can be hugely expensive, and we have public policies and systems that can actually impede good stewardship.

Some people are surprised to learn that many landowners across the West share a strong land ethic and face these same challenges. In fact, the landowner-led collaborative conservation movement is widespread and growing. The most effective thing we can do in support of Aldo Leopold's land ethic is to enable its implementation on the ground. We need policies, economic opportunities, the cooperation of public-land management agencies, and the development of relevant science to better support the voluntary decency that already exists.

*Lesli Allison
Santa Fe, New Mexico*

ETHICS TO LAW

In *HCN*'s special issue on the future, the first two essays discuss Aldo Leopold's land ethic and William O. Douglas' dissent in *Sierra Club vs. Morton*. I'd like to connect these ideas using Leopold and Christopher Stone, whose law review article Douglas cited in his dissent.

In his 1949 "Land Ethic," Leopold challenges us to expand the boundaries of our community: "All ethics so far evolved rest upon a single premise: that the individual is a member of a community of interdependent parts. ... The land ethic simply enlarges the boundaries of the community to include soils, waters, plants, and animals, or collectively: the land." However, more than 60 years after this challenge, most of us still think of



community in purely human terms. Our failure to see our larger community, to push Leopold's "ethical sequence," remains our problem. Until we can move beyond our own narrow, shortsighted interests to see ourselves as a small part of a large biotic community, we will not expand our ethical conscience to include that community, a community we must also love.

Without this ethical foundation, based in a community of love, there will be no "rights." Stone, in his essay, "Should Trees Have Standing? Toward Legal Rights for Natural Objects," written in 1972, employs Leopold's idea of an ethical sequence as it is reflected in law. Citing the history of the expansion of rights to children, "prisoners, aliens, women (especially the married variety), the insane, blacks and Indians ..." and then to nature, Stone again challenges us to evolve, to broaden our rights community. In Stone's terms this expansion, was, at the time, "unthinkable," just as rights for all these other groups were at some time unthinkable. Sadly, for many it remains unthinkable for nature to have rights.

But the unthinkable must become the imperative. As climate change squeezes us into an awareness of the web connecting our larger community, we must think the unthinkable. The environment may have gained some legal protection based on human needs, but we still have not taken what should no longer be considered a radical step. It's time to get radical.

*Susan Jacobson
Denver, Colorado*

KAPUT-ALISM

What are we thinking? I'm thinking that capitalism and Gaia have nothing in common. It was thought in the 19th century, when imperialism justified itself with

various racist faux-Darwinian scientisms, that nature fit neatly with Adam Smith's exaltation of the free market. But now we know better. Global capitalism is destroying the planet. What thinking person can doubt it?

Of course, not everyone wants to think. We happily consuming Americans, fortunate conquerors of a temperate paradise sparsely populated by peoples with a lesser technology, have kept the faith in the notion that Adam Smith's invisible hand will work it all out. In fact, capitalism and natural science don't have a damn thing in common. If the enthusiasts of capitalism think otherwise, I say: Prove it by adapting the laws of the free market to, for example, the laws of geology. Show us, if you will, how quarterly returns can work with the processes of the Grand Canyon.

Until now, we've gotten away with pretending that capitalism and the Earth are compatible, even though capitalism has extinguished most of the Earth-based cultures along the way. The party's over. Either capitalism adapts to the truth of natural science or capitalism is kaput. Along with the rest of us.

*Merrill Collett
Tucson, Arizona*

FACEBOOK FEEDBACK

facebook.com/highcountrynews

... on Sarah Gilman's story,
"Where can we say 'Yes' to oil and gas?"

Wade Field Dixon: "Drill here and do it right."

Joanne Hudela: "Nowhere! It's destroying everything! Make it illegal! Decriminalize industrial hemp and help heal this planet! Oil and gas is passe and ignorant!"

Steve Barry: "I ♥ DRILLING."

Susan Cromer: "I want my next car to be solar-powered. Why can't that happen? We landed a phucN vehicle on a comet, but no one can engineer a solar-powered vehicle?"



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Spills *continued from page 3*

Creek, just east of the Montana border. That spill, like the recent one, was from a brand-new plastic pipeline that leaked for at least two weeks before being detected. It was caused by a failed welding job.

Afterward, it looked like someone had sprayed herbicide for miles along Charbonneau Creek, a tributary, as it happens, of the Yellowstone River. Bleached plants wilted on the bare ground. Fish died. "It was years before the cattle went back and started drinking from the creek," Braaten said. When salty wastewater leaks directly into the soil on agricultural land, another type of common spill in North Dakota, the results can be even more devastating, sterilizing the ground for decades.

Because federal regulators have no authority over rural wastewater gathering lines, it's up to states to require inspections or monitoring. North Dakota lawmakers declined to do so in 2013, when they overwhelmingly voted down a bill that would've mandated flow meters and switches to isolate leaking parts of gathering lines.

Such devices wouldn't detect the smallest leaks, they said. And while that's

true, they could at least be installed on the highest-risk pipelines, said Richard Kuprewicz of Accufacts Inc, a consulting firm that investigates pipeline breaks. "The quandary here is everyone wants a sound bite answer to a complex problem," Kuprewicz said. "(And) some people will take advantage of that complexity to not do anything."

State regulators did enact new construction standards for gathering lines. Companies now must document where they are, what they carry, and certify that they were built correctly. But the state doesn't employ any pipeline inspectors. It's tried to hire some, for \$43,000 a year, but anyone with the requisite skills can double their money in the industry. So the checklists are a new form of self-policing: pieces of paper a pipeline company fills out and the state signs off on without ground-truthing.

The latest spill, combined with the recent Yellowstone River incident — the second in less than four years — might represent a tipping point. "There's a lot of dissatisfaction in our department about the current spill rates," said Lynn Helms, director of the state's Department of Mineral Resources. Gov. Jack Dalrymple



echoed that sentiment, saying the recent spills "raised the question of whether there should be a higher (construction) standard when we know there is a pipeline going under a significant body of water."

Dave Glatt, the head of the North Dakota Department of Health's Environmental Health Division, was even more frank: "I can see where the public would say, 'How come our state government isn't protecting us?'" □

Oily wastewater collects at a cleanup berm on Blacktail Creek, North Dakota.

EMILY GUERIN/
INSIDE ENERGY

DOING THE MATH

Statistical realism

David Hughes crunches unpopular numbers for the shale oil boom

First met energy analyst David Hughes last July in a miasma of diesel and gasoline fumes. It had taken me a three-hour drive and three ferryboats to arrive at

beautiful and remote Cortes Island, one of dozens of islets wedged like ice floes in the Strait of Georgia, off the west coast of British Columbia.



Hughes, waiting in the cab of his Toyota pickup, surveyed the new arrivals as they disembarked the boat. Many were in their early 20s and, judging by their enormous backpacks and heavy boots, determined to experience this northern island paradise properly. Hughes swung a beckoning arm out the window. "You made it," he said, in a tone that suggested that he'd had his doubts. "Are you ready for the whirlwind tour?"

I'd come in hopes of learning something about this reclusive man, who has stirred up debate among energy watchers over the last few years, mainly by the statistical thrashing he's been giving to the so-called U.S. shale revolution. At the time, after all, domestic oil production was surging, as it still is — with U.S. fields coughing up 7.4 million barrels of oil per day, up 64 percent since 2008 — and energy prices had not yet begun their sharp plunge. Together, North Dakota's Bakken and Texas's Eagle Ford fields were producing 2.8 million barrels per day, or 15 percent of the U.S.'s daily demand. The uptick is largely the result of hydraulic fracturing, a technique that has unlocked hydrocarbons from formations once technically and financially impractical. Continental Oil executive Harold Hamm believes U.S. shale plays hold a century or more worth of oil and gas and the key to American "energy independence."

Hughes does not deny the short-term

Hughes examines a backup battery system, which powers his house when electricity from the grid is interrupted.

JEREMY MILLER

BY JEREMY MILLER

"If we as a society
begin believing...
and thinking
we're OK in the
long term, we're
in trouble."

—David Hughes,
"Statistical Realist"

Hughes jokes with
Cortes Island's
postmaster, Helene
Racine. JEREMY MILLER

figures. But he insists that the long-term projections of Hamm and others are dangerously overstated. A former geologist with the Geological Survey of Canada, David Hughes does not preach about the environmental evils of fossil fuels or the moral imperative of protecting the planet for future generations. Instead, he argues with the math — especially the reserve numbers released by industry or federal agencies, the same sort of estimates he spent three decades calculating for the Canadian government.

His work for the California-based Post Carbon Institute, where he's been a fellow since 2006, has drawn praise from environmentalists and angered pro-shale advocates. David Blackmon, a *Forbes Magazine* energy writer, denounced Hughes' estimates as "hyperbolic," "fallacious" and "pure invention."

But many energy experts don't think Hughes' ideas can be so easily dismissed. For example, in *Drilling California*, a report published in December 2013 by the Post Carbon Institute, he calculated that the amount of oil that can be extracted from California's Monterey shale formation had been vastly overstated. His report preceded by several months a major downward revision by the U.S. Department of Energy of its official estimates of Monterey reserves. Until that revision last June, the Monterey was projected by the energy department to be the nation's largest shale oil play.

Hughes is not an anti-fossil fuels activist; rather, he is, he says, a "statistical realist." And though his client list

includes oil companies as well as outfits like the Post Carbon Institute, he understands why many energy executives have been reluctant to embrace his findings. Oil companies, he says, will not be deterred from expensive-to-extract fossil fuel sources such as shale oil and tar sands as long as the per barrel price is high enough. But every year that unconventional energy sources remain at the center of our energy portfolio, he says, is a year lost from the inevitable transition that must be made away from them. "My view is that the U.S. should take the shale revolution as a blessing in disguise," he says, "and begin thinking longer-term about a strategy to manage what will inevitably be scarcity."

Now there are signs that the shale oil party may end sooner than anyone expected, though not for the reasons Hughes has cited. In late November, the Saudi Arabian oil minister announced plans to wage economic war on the U.S. shale industry by maintaining production in spite of falling global demand, flooding the world market with oil. Though other OPEC members protested, the Saudi plan was carried out — and apparently to its desired effect. By mid-January, the per-barrel price of oil had fallen below \$50 for the first time in a decade. While consumers laud lower prices, this does not bode well for the U.S. shale oil industry, which many believe requires a per-barrel price of at least \$60 to \$100 to remain viable. Nonetheless, at the beginning of January, the Energy Information Administration projected that production would continue apace.

Despite the uncertain geopolitics, Hughes remains fixed on what he sees as the geological limitations of U.S. shale and the need for the public to recognize the scenario that something now abundant could become scarce in the not-so-distant future. "Industry is concerned with the next couple months, the next couple quarters, so there is more and more hype about the short term," says Hughes. "If we as a society begin believing that hype and thinking we're OK in the long term, we're in trouble."

After we left the ferry slip on my July visit, we drove to a beach on the island's southern flank and walked over clam and oyster shells that clattered like broken porcelain underfoot. Hughes, 63, had a tousled mop of light-brown hair and wore a tattered beige T-shirt showing wolves howling at the moon. "The ferries are definitely the fossil fuel Achilles' heel of this place," said Hughes, who first came to Cortes in the 1970s. "But once you're here, you're here."

I visited his headquarters, located in his rustic home on a hill overlooking Vancouver Island. Inside, a tattered recliner sat before a high-efficiency woodstove, near a dated-looking PC. After retiring from the Canadian government in 2008, Hughes became an energy consultant, working for clients from energy companies to environmental think tanks.

Though his home is isolated, he is by no means a hermit. He travels often and has given talks with the likes of Tom Steyer, the California billionaire and renewable energy activist, on the pitfalls of depending on shale oil to address the country's energy needs. But he's most at home nosing through obscure reports and industry databases, comparing projections with what is actually being produced. *Drilling California* excoriates the Energy Information Administration and its 2011 estimate of California's Monterey shale — a vast formation underlying California's Central Valley as well as Santa Barbara and Los Angeles counties — projecting it holds 15.4 billion barrels of recoverable oil. (For comparison, in the same report the Bakken field is projected to contain roughly 4 billion barrels of recoverable oil.)

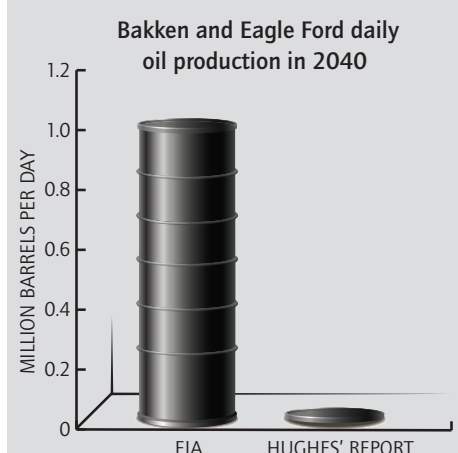
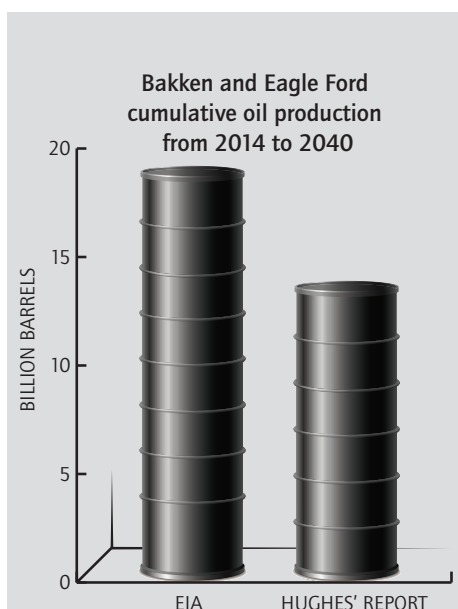
Such numbers are apt to make executives and investors salivate. But to Hughes they threw up immediate red flags. "The Monterey shale is not exactly a new find," Hughes told me. "It has seen decades of intensive exploration." The Bakken has a uniform "Oreo cookie" geology, Hughes explained, whereas the Monterey is warped and fractured by tectonic activity, making its oil much harder to extract.

Moreover, he added, much of the oil that has been recovered in the Central Valley has migrated from deeper parts of the Monterey shale. Ostensibly "new" finds north of Bakersfield, he said, are vestiges





GREEN FIRE TIMES



In October 2014, Hughes published *Drilling Deeper*, a report checking the U.S. Energy Information Administration's (EIA) predictions for oil and gas production through 2040. Hughes' oil production estimates for Bakken and Eagle Ford were far lower than the EIA's. This explains his wary attitude toward basing energy policy decisions on abundant oil and gas.

SOURCE: EIA, ANNUAL ENERGY OUTLOOK 2014, WWW.EIA.GOV/FORECASTS/AEO; DAVID HUGHES, DRILLING DEEPER, WWW.POSTCARBON.ORG/DRILLINGDEEPER

of fields exploited for more than a century.

Probing for the source of the EIA's 15.4 billion barrel estimate, Hughes found it was calculated by INTEK using well production data supplied by the oil company Occidental Energy, one of the largest players in the Monterey. He double-checked the numbers using a database called DrillingInfo and found INTEK's estimate to be highly inflated — by more than 90 percent.

Within months of Hughes' report, the U.S. Energy Information also back-ped-

aled on its estimates for the Monterey — dropping its projections from 15.4 billion to 600 million barrels, a 95 percent downgrade. Phil Budzik, an EIA analyst involved in issuing the downgrade, said the similarity between the agency's downgrade and Hughes' figures is purely coincidental. "It's like two guys getting up in the morning and both seeing that there are heavy clouds in the sky," he told me. "They can both pretty much see that it's going to rain."

However, Hitesh Mohan, lead author of the INTEK report, stands behind the 15.4 billion barrel figure, with one important caveat: The numbers, he told me, are a best guess of what theoretically could be recoverable at some point in the future, rather than a projection of what's actually recoverable now.

Hughes has also given rough statistical treatment to North Dakota's Bakken and Texas' Eagle Ford. He has found that the output of the average well drilled in the Bakken slumps by 85 percent over the first three years of production. After that, the decline rate tends to level off, he said, but with daily output a small fraction of what was produced when the well was first drilled. (The EIA's Budzik concurs with Hughes' assessment.) By comparison, the production decline at Ghawar, the world's largest conventional oil field in Saudi Arabia, is about 5 percent per year. "The problem is that all shale plays ramp down much faster than conventional oil fields," said Hughes, pointing out that steep decline curves are inherent with shale oil fields and yet rarely mentioned in breathless discussions of the riches of the Bakken and Eagle Ford.

It's possible, of course, that technology will eventually prolong the brief lifespan of the average well, but for now, the decline rate in the Bakken is being offset by a blistering drilling pace. Roughly 1,400 wells per year are needed to maintain present production levels; last year, the industry drilled around 2,000 wells. The continual drilling means that companies that have gone "all in" on the Bakken are on shaky financial footing, says Art Berman, a Houston-based energy analyst. In an analysis of a cross-section of 25 energy companies heavily invested in domestic shale oil plays, Berman found a cumulative negative cash flow of about \$67 billion over the last four years. "I'm not going to take away from the fact that all this activity has been good for the economy," says Berman. "The problem is that these companies are not making money."

There's also a geographical dimension to North Dakota's boom, Hughes told me. According to his research, 85 percent of the oil comes from just four of the 15 counties comprising the field. As drilling continues, oil companies will inevitably be forced into lower-quality parts of the field outside this "sweet spot." But the

cost of drilling remains the same, between \$8 million and \$10 million per well, so companies will have to drill more to offset the steep production decline — and prices will need to increase dramatically to justify the expenditures.

In his latest Post Carbon Institute report, in October, Hughes predicted that Bakken and Eagle Ford oil production will peak before the end of the decade, likely by 2017. By 2040, he said, production in these two fields — which account for about one-fourth of U.S. domestic production — will have plummeted to about 100,000 barrels a day, or 5 percent of their current output.

Though Hughes was eager to talk about the shortcomings of the shale oil "revolution" and the rapid dwindling of the world's hydrocarbons, he became far more measured, even somber, when it came to solutions. Of course, energy consumption must be curbed in the developed world, he said. ("If you want to solve the energy problem, get rid of an American — or a Canadian," he likes to say.) But that's only the half of it. "Population is a big problem," said Hughes. "If you ramp down energy throughput by 40 percent but you grow population by the same percentage, you're not actually doing anything to bring down consumption."

Renewables can play a much larger role in the world energy mix but are far from a perfect solution, he said. "If you include biofuels, renewables account for about 2.2 percent of energy generation globally, not counting large hydro."

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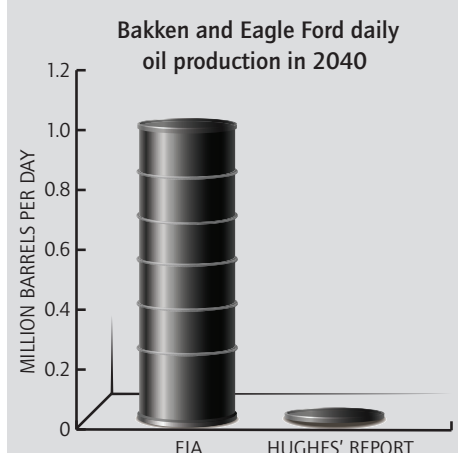
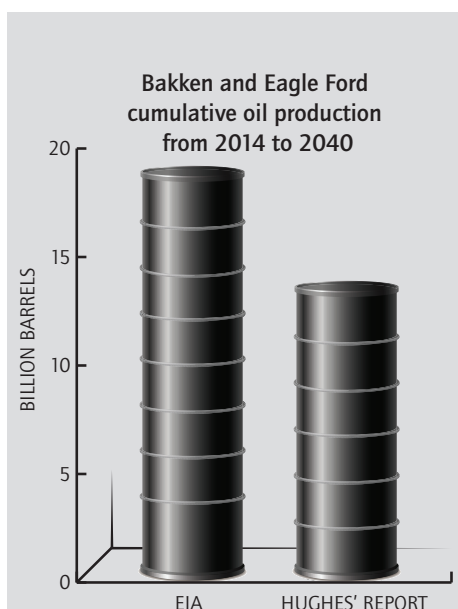
Followup

On Jan. 19, a U.S. District Court struck down Mora County's ban. It was the first time a federal court has ruled on "local control" of oil and gas development, and the decision represents a win for industry — and a blow to environmentalists. The judge found that the ban's language deprived oil and gas companies of their corporate rights, violating the U.S. Constitution's Supremacy Clause. John Olivas, the former county commissioner behind the ban, says that while it's "unfortunate corporate rights are so much higher than community rights in the eyes of the court," the fight for local control is far from over.

KRISTA LANGLOIS



GREEN FIRE TIMES



In October 2014, Hughes published *Drilling Deeper*, a report checking the U.S. Energy Information Administration's (EIA) predictions for oil and gas production through 2040. Hughes' oil production estimates for Bakken and Eagle Ford were far lower than the EIA's. This explains his wary attitude toward basing energy policy decisions on abundant oil and gas.

SOURCE: EIA, ANNUAL ENERGY OUTLOOK 2014, WWW.EIA.GOV/FORECASTS/AEO; DAVID HUGHES, DRILLING DEEPER, WWW.POSTCARBON.ORG/DRILLINGDEEPER

of fields exploited for more than a century.

Probing for the source of the EIA's 15.4 billion barrel estimate, Hughes found it was calculated by INTEK using well production data supplied by the oil company Occidental Energy, one of the largest players in the Monterey. He double-checked the numbers using a database called DrillingInfo and found INTEK's estimate to be highly inflated — by more than 90 percent.

Within months of Hughes' report, the U.S. Energy Information also back-ped-

aled on its estimates for the Monterey — dropping its projections from 15.4 billion to 600 million barrels, a 95 percent downgrade. Phil Budzik, an EIA analyst involved in issuing the downgrade, said the similarity between the agency's downgrade and Hughes' figures is purely coincidental. "It's like two guys getting up in the morning and both seeing that there are heavy clouds in the sky," he told me. "They can both pretty much see that it's going to rain."

However, Hitesh Mohan, lead author of the INTEK report, stands behind the 15.4 billion barrel figure, with one important caveat: The numbers, he told me, are a best guess of what theoretically could be recoverable at some point in the future, rather than a projection of what's actually recoverable now.

Hughes has also given rough statistical treatment to North Dakota's Bakken and Texas' Eagle Ford. He has found that the output of the average well drilled in the Bakken slumps by 85 percent over the first three years of production. After that, the decline rate tends to level off, he said, but with daily output a small fraction of what was produced when the well was first drilled. (The EIA's Budzik concurs with Hughes' assessment.) By comparison, the production decline at Ghawar, the world's largest conventional oil field in Saudi Arabia, is about 5 percent per year. "The problem is that all shale plays ramp down much faster than conventional oil fields," said Hughes, pointing out that steep decline curves are inherent with shale oil fields and yet rarely mentioned in breathless discussions of the riches of the Bakken and Eagle Ford.

It's possible, of course, that technology will eventually prolong the brief lifespan of the average well, but for now, the decline rate in the Bakken is being offset by a blistering drilling pace. Roughly 1,400 wells per year are needed to maintain present production levels; last year, the industry drilled around 2,000 wells. The continual drilling means that companies that have gone "all in" on the Bakken are on shaky financial footing, says Art Berman, a Houston-based energy analyst. In an analysis of a cross-section of 25 energy companies heavily invested in domestic shale oil plays, Berman found a cumulative negative cash flow of about \$67 billion over the last four years. "I'm not going to take away from the fact that all this activity has been good for the economy," says Berman. "The problem is that these companies are not making money."

There's also a geographical dimension to North Dakota's boom, Hughes told me. According to his research, 85 percent of the oil comes from just four of the 15 counties comprising the field. As drilling continues, oil companies will inevitably be forced into lower-quality parts of the field outside this "sweet spot." But the

cost of drilling remains the same, between \$8 million and \$10 million per well, so companies will have to drill more to offset the steep production decline — and prices will need to increase dramatically to justify the expenditures.

In his latest Post Carbon Institute report, in October, Hughes predicted that Bakken and Eagle Ford oil production will peak before the end of the decade, likely by 2017. By 2040, he said, production in these two fields — which account for about one-fourth of U.S. domestic production — will have plummeted to about 100,000 barrels a day, or 5 percent of their current output.

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KRISTA LANGLOIS

Wilderness as therapist

A growing number of veterans and researchers are racing to understand nature's power to heal



Stacy Bare, above, climbs Whale's Tail in Eldorado Canyon State Park, Colorado. His first climbing experience on the Flatirons outside of Boulder, Colorado, in 2008, led the Iraq War veteran to become part of a movement to get other vets into the outdoors. A Veterans Expeditions group, far right, hikes Colorado's Mount Elbert on Veterans Day.

CHRIS KASSAR

One of the environmental movement's most legendary characters was also a traumatized war vet. You might remember George Washington Hayduke for his inventive, destructive antics, but he was also a man who measured road miles by the number of six-packs it took him to drink while driving and whose mind often wandered back to Vietnam. "What's more American," Hayduke wonders in Edward Abbey's novel *The Monkey Wrench Gang*, "than violence?"

The fictional Hayduke had a real-life model: a former Army medic named Doug Peacock. Peacock served in Vietnam during his 20s, and as he went through the violence of that war, the thing he carried was a map of the Northern Rockies. He brought it out during rare quiet moments and imagined himself in its contours, rolling over the sharp granite creases of the Wind River Mountains or the grassy meadows north of Yellowstone Lake. When he returned from the war, he returned to nature, studying grizzlies for several decades and fighting for their federal protection, as well as for that of other threatened species. These days, the 72-year-old activist and writer has become a new role

model, not just for greens, but for a new generation of veterans.

"What they need to do is go out and immerse (themselves) in the wild," he said recently. "Let it wrap around you. See what it does to you."

The idea of wilderness as therapy for veterans is nothing new. In recent years, a growing number of such programs are springing up around it. But in order for it to work on the scale that's needed, its supporters are going to have to get the military behind it. And that's where the difficulty lies.

There are some 21 million American veterans today, 4 million in the West alone, who have served in places from Vietnam to Iraq to Afghanistan. Half of Iraq and Afghanistan vets have received mental health diagnoses including post-traumatic stress, which can lead to high rates of alcohol or drug abuse, domestic violence and suicide. In 2010, an estimated 6,000 vets committed suicide — on average 16 a day, and 20 percent of the U.S. total. More soldiers have died from self-inflicted wounds than service members died in combat between 2002 and 2013.

The federal Department of Veterans Affairs is supposed to help, but the

agency seems overwhelmed. Treatment rates have improved in recent years, but 242,000 vets report not receiving treatment within four months of requesting it. The VA predicts it will treat 6.6 million vets in 2015.

A persistent lack of funding and increasingly common and hard-to-treat problems like traumatic brain injury have combined with bureaucratic red tape to breed distrust among veterans about the agency's effectiveness. A national scandal last year, when it was revealed that the VA had exaggerated how quickly it was treating people, made things even worse. A recent survey showed that almost a third of veterans with PTSD or traumatic brain injury now drop out of treatment, citing lack of progress, and the same number never bother to ask for help.

Meanwhile, a growing number of vets are finding ways to help themselves — particularly in the wild. A leading proponent of this approach is Stacy Bare, a 36-year-old Iraq War veteran and the director of Sierra Club Military Outdoors, a prominent wilderness program for veterans. At 6-foot-7, broad-boned and with an impossibly deep baritone voice, Bare is an imposing figure, one who is inspiring to many service members finding their way through trauma. A climber, skier and mountaineer, who likes to end his emails with the message "Stay stoked!" Bare is well aware of the benefits of nature.

"We know intuitively that outdoor recreation can provide a quantifiable mental health benefit," he says. "But for policy and for funders, we have to make sure that we have strong monitoring and evaluation behind it."

That's because, while there are a growing number of one-off partnerships between outdoor organizations and local VA hospitals, the VA as an entire agency is not fully on board with wilderness as therapy. And that's because Bare and others can't prove that it works. "Across the board, people haven't done a good job showing the results," he says. "We've done a lot of nice things for veterans, but what are the things that really work?"

Right now, there's a wide range of existing wilderness programs for vets: The VA partner Wasatch Adaptive Sports gets them skiing and camping outside Salt Lake; Project Healing Waters takes them fly-fishing around the country; Idaho-based Higher Ground hosts eight-week sports camps for vets and their families; the Army's own Warrior Adventure Quest

BY TAY WILES

teaches “alternatives to aberrant behavior,” such as paint ball, rock climbing and scuba diving. Outward Bound Veterans and Sierra Club Military Outdoors take hundreds of vets outdoors each year.

But just because these kinds of programs appear to be working doesn’t mean that researchers understand how. And until that happens, it will be hard to create a coherent, officially sanctioned program, especially through the VA writ large.

“I think there’s interest, but there is not necessarily a national acceptance of adventure-based experiences within the VA,” says psychologist David Scheinfeld, director of research for Project Rebirth, a nonprofit that develops healing programs for first responders and vets, who recently became a post-doctoral fellow for the VA in Austin, Texas. “The VA needs data showing it’s effective, safe, that it’s worth supporting.”

Scheinfeld is working to provide that data. Last fall, in partnership with Outward Bound, he studied the psychological impacts of outdoor experiences for veterans. Though not yet peer-reviewed, that study is one of the closest examinations of the value of nature in treating war trauma. Scheinfeld observed how anxiety, sense of purpose and other health indicators changed for 199 vets before, immediately after and one month following an outdoor experience, such as mountaineering or backpacking for a week. The majority of veterans showed improvements, including increased willingness to seek

professional help, lower rates of depression and enhanced feelings of social connection, though some of those changes tapered off after a month.

This kind of research could also help assuage critics who say outdoor companies and guides stand to profit from more widespread programs.

“The VA (is) very data-driven,” says Jennifer Romesser, a clinical psychologist at the Salt Lake VA, who helps run veterans outdoor programs. “That’s why this research is so important.”

Stacy Bare and a growing number of “stoked” vets know this, so they are working hard to get the VA the data it needs to act. Bare is now helping with a three-year pilot study, bringing together Sierra Club Military Outdoors, Outward Bound, Project Rebirth and Georgetown University.

The study will gather groups of nine to 12 veterans and integrate therapeutic outdoor experiences with more traditional mental health treatment, testing the effects while researching ways to partner with local VA centers. (The first group will spend a week in April rafting Cataract Canyon in Utah with Outward Bound.)

As part of the three-year study, 37-year-old Josh Brandon, who served three tours in the Iraq War, is establishing research hubs in Washington state. Like Bare, Brandon is sold on nature as therapist.

Brandon served as an infantry officer

in the Army in his first tour in Iraq — “like the guys on TV, who are dirty, have rifles and are getting into street fights.” As an advisor to Iraqi forces in 2006, he saw civil war and ethnic cleansing in Baghdad. By the beginning of his third tour in 2009, he was drinking pretty hard, but by the end of it, he told me, “I came home with ‘death eyes.’”

He tried the VA, but at the clinic in Lakewood, Washington, he saw soldiers with amputated limbs and gruesome scars, and “it scared the shit out of me,” he recalled. It also convinced him that other vets needed help even more than he did. He started getting together with Army buddies, doing crash courses with a local mountain guide, and then going out on expeditions, where teamwork and goals created a positive space for recovery. On his first attempt to summit Mount Rainier, he ran into 60 mph winds and rock falls. It was, he says, “awesome.” Somewhere along the way, the death eyes went away.

Brandon says his main goal remains getting vets the help they need. But he’s discovered an interesting fringe benefit: Not only can nature help vets, he says, but they can return the favor — by helping nature. And a recent survey showed that 75 percent of post-9/11 war vets who live in Western states favor federal protection of public lands. Much like Hayduke, Brandon has become a warrior for the wilderness. And he’s not the only veteran who feels that way, he says: “I call it defending our land a second time.” □



A 2-year-old pallid sturgeon.KATIE STEIGER-MEISTER/USFWS

THE LATEST

Backstory

In 1990, “the dinosaur of the Missouri River,” the pallid sturgeon, was declared endangered.

Scientists blamed dams on the Upper Missouri, but lacked proof. Meanwhile, they’ve released thousands of hatchery-raised sturgeon to bolster population numbers. In recent years, a few wild fish have been discovered, but live offspring appear to be lacking (“Can pallid sturgeon hang on in the overworked Missouri River?” *HCN*, 9/24/12).

Followup

In January, a study from the U.S. Geological Survey and University of Montana researchers proved that the dams cause reduced oxygen levels, decreasing sturgeon embryos’ odds of survival. Another discovery was more encouraging: **Genetic testing just confirmed that two fish larvae, found last June in the Missouri near St. Louis, were wild pallids.** It was the first time the species has turned up in that stretch at such early stages of development — a sign that, despite the dams, some natural reproduction is occurring.

SARAH TORY



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Unbuilt Ascaya lots and cul-de-sac looking northwest, Sun City MacDonald Ranch, Henderson, Nevada; 2012. COURTESY RADIUS BOOKS

LAKE LAS VEGAS/BLACK MOUNTAIN Michael Light
136 pages, hardcover: \$60. Radius Books, 2014.

San Francisco photographer Michael Light focuses on the Western landscape and its transformation by modern American culture. The third book in a multi-volume series of aerial photographs, *Some Dry Space: An Inhabited West, Lake Las Vegas/Black Mountain* is a beautiful yet harrowing look at urban sprawl and whittled-down desert outside Las Vegas, Nevada.

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'Monaco' Lake Las Vegas home and foreclosed neighbor, on guard-gated Grand Corniche Drive, Henderson, Nevada; 2010. COURTESY RADIUS BOOKS

Light, who is also a pilot, took to the skies in 2010 to study two developments that were temporarily stalled by the real estate decline. Taken during early morning and late afternoon to capture maximum "three-dimensionality," Light's photos make space appear vast and surreal. Captivating and vulgar, elegant and raw, these images remind us what it means to live in a constantly changing West.

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Welcome, new interns!

Our latest interns, **Kate Schimel** and **Kindra McQuillan**, have arrived for six months of rigorous reporting, writing and perhaps even a bit of fun. And **Sarah Tory**, a stellar intern from last session, is now our editorial fellow for the next year.

When **Kindra McQuillan** was a child, her outer world was often in flux — her family moved nearly every year — but she always made a space of her own for reading and writing, from Farr West, Utah, to tiny Ruch, Oregon. Her extensive reading led her to suspect that most so-called "villains" were nothing more than the products of stories, that maybe, in real life, there were no bad guys.

This thought followed Kindra even after she left for college, at the University of Montana in Missoula, where she studied Spanish and anthropology. It lingered as she became a substitute teacher, worked in public health education and travelled for a year through Spain. She started writing again, and in 2012, an acquaintance suggested that she might find a place in journalism.

So she returned to the University of Montana, to the journalism school this time, where she reported on science and politics and investigated mercury contamination. She graduated in December, just in time to start an internship at *HCN*, where she says she'd like to tell the stories that only the West provides. But her thinking on one point has changed: "As a journalist," she says, "I've learned there are villains."

One fall night in 2010, 20-year-old **Kate Schimel** left her grandmother's New York City apartment for what she thought would be a casual gathering of young writers. But the posh Central Park suite was filled with suit-clad documentarians engaged in a moderated discussion on the state of journalism, and Kate, in her baggy jeans and fraying sleeves, shrank into a couch and retreated behind her drink.

This was nothing like Boulder, Colorado, where she was raised. There, she spent winters skiing and summers on Rocky Mountain whitewater. When not outdoors, she wrote and painted, and at one point studied art at Portland's Reed College. Reading C.L. Rawlins' *Sky's Witness: A Year in the Wind River Range* sparked an epiphany, the idea that she could marry creativity with wildness, as a writer.

That night in New York, the founder of *Chalkbeat*, a start-up education blog, struck up a conversation with her and eventually offered her a reporting internship. This started Kate's journalism career, eventually leading her back to the West to finish a degree in biology at Reed before continuing with *Chalkbeat* as a reporter on rural schools in Colorado.

Just as she was wrapping up that job, Kate was accepted as an intern at *High Country News*. She's glad to be back out West, she says, where snow falls on mountains, not penthouses.

—Kate Schimel and Kindra McQuillan



Kate Schimel, left, and Kindra McQuillan, new interns, on the main street of Paonia. BROOKE WARREN



Chainsaw Diplomacy

In southern Utah's Escalante watershed, a river restoration group tries to cut through old cultural barriers

A watershed is "that area of land, a bounded hydrologic system, within which all living things are inextricably linked by their common water course and where, as humans settled, simple logic demanded that they become part of a community."

—John Wesley Powell

The Escalante River is like a tree with its trunk in the Colorado River at Lake Powell and its branches reaching up to the top of the Aquarius Plateau. There's an elevation gain of 7,000 vertical feet, and it's all sandstone, a waterslide.

There are two small towns in the watershed, with a combined population of less than 1,200 people. The villages, Escalante and Boulder, are extremely remote by U.S. standards. This area was the last part of the Lower 48 to be mapped by the federal government, in 1875. Today, the closest well-stocked grocery store is more than 100 miles away over winding mountain roads.

The people who live in the two towns are mainly Mormon — members of the Church of Jesus Christ of Latter-day Saints — descendants of the original pioneers who first arrived in the early 1880s. But there are also newcomers, maybe 25 percent of the current population, who've moved here from "outside" because of the area's natural beauty.

The insiders and the outsiders sometimes do not get along, especially on issues concerning land use and resource management. The most dramatic rift opened up in 1996, when then-President Bill Clinton created the 1.9 million acre Grand Staircase-Escalante National Monument, covering a good part of the watershed. Outsiders welcomed it; insiders were, and many still are, furious. I have a theory about the conflict. I think it's because the two groups have entirely different cosmologies, or answers to the questions of where we come from, why we are here, and where we are going.

Mormons believe we are the offspring of a Heavenly Father who put us here, in this mortal existence on the planet Earth, in order to progress toward a higher, even god-like state of being. They believe they, the Saints of the Latter Days, are chosen by God to build His Kingdom on Earth and prepare for the return of His son, Jesus the Christ, and that God promised this land to them for just this purpose. The Mormons' belief system is based upon this faith. It's how they see themselves, as God's stewards of the land.

The cosmology of the outsiders, on the other hand, is not based in faith but in reason. They believe human beings evolved from ape-like ancestors, for example, and that humans are a part of nature, not separate from it. Their god *is* nature, and they use science to understand His work, or Her work, if they

believe in a god at all. They're environmentalists.

Both cultures are almost entirely white Americans. There are rich and poor on both sides. They speak the same language, but many of the words have different meanings. The word "cow," for instance, is a symbol of prosperity to the Mormons, but for environmentalists "cow" is a symbol of environmental destruction. And when it comes to talking about water and how to manage the watershed, the "simple logic" that Powell spoke of is something that's very difficult to achieve.

Sue Fearon works every day to try to bring people in Escalante and Boulder together around their common watershed issues. She grew up in Connecticut but has lived on Deer Creek, eight miles east of Boulder, for nearly 30 years — first in a small camper without plumbing or electricity, but now in a home carved out of the inside of an 80-foot-tall sandstone mound. She grows a lot of her own food, has a few beef and dairy cows, pigs, turkeys, some horses. She and her husband, Grant Johnson, want to be as self-sufficient as possible.

This morning, we are in Sue's pickup, driving from Boulder to Escalante across the Hogback, a narrow winding ridgeline that drops off on both sides for several hundred feet. Sue's rather petite and she's sitting up tall with both hands on the wheel, paying close attention to our course.

"I'm a farmer," she says, "so to me it's all about productivity." "What is?" I ask.

"The water," she says. "We can let it slide off the mountain and end up in Los Angeles. God knows they need it there. But I think we should use it here in ways that increase productivity, so we can be more self-sufficient as a community."

She's part of a group called the Escalante River Watershed Partnership, comprised of residents and representatives from government agencies and environmental groups who hope to figure out ways to restore the riparian areas in the Escalante watershed. Riparian areas slow down the water as it slides off the mountain. They have native plants and grasses, which helps the soil function as a sponge, absorbing and holding the water so that other plants and animals can use it. The partnership focuses on riparian zones because many of these areas in the Escalante watershed are in need of attention and effort.

It's complicated. Some riparian areas are on public property, some are on private property. On public property there are long lists of regulations and procedures, on private property the owner can do pretty much whatever he or she likes. Some riparian areas have been damaged by overgrazing, many have been invaded by Russian olives, and up high in the mountains the beaver have been largely wiped out. Beaver are very good at slowing water down, but some people don't like them because they clog irrigation pipes.

"I can't force anyone to do something they don't want to do, because none of this is going to work unless the landowners take a stake in it. If they don't want to go into it as partners, then it won't work."

—Sue Fearon,
Escalante River
Watershed Partnership

A Youth Corps volunteer stands near the river bottom of the Escalante River, where environmental groups and government agencies have been working to remove invasive Russian olive trees and restore the free-flowing river. CHRIS CRISMAN FOR THE NATURE CONSERVANCY

Summer in the Escalante Valley, where a traditional Mormon ranch culture includes the summer rodeo and parade. Far right, a sign of the newer valley residents: A cairn sits atop Sugarloaf Mountain in Boulder, Utah, surrounded by poems and other offerings and flying various flags — anything from the American flag that's there now to prayer flags to a gay pride flag to this Jolly Roger. ACE KVALE



Sue says the partnership, or ERWP (pronounced “er-whip”), has had some productive meetings and designed projects they’re carrying out, mainly controlling the invasive Russian olives, but there’s a big problem in that, for the most part, the insiders are not participating.

“They won’t come to our meetings,” she says. “When they hear about ERWP they think ‘environmentalists’ and ‘federal government,’ and they’re afraid we’re trying to take away their grazing rights. But we’re not. We’re not trying to get rid of cows. We’re just trying to restore the riparian areas, and we’re using science to guide our work. We’re trying to bring back the grass that cows can eat. But they don’t want to talk to us.”

One of Sue’s jobs with ERWP is to

eradicate Russian olives on private land. Russian olives were introduced into the Escalante watershed in the 1950s and have pretty much taken over in recent decades, clogging the shores along the streams in a way that turns the stream into something like a canal or pipeline, so that all the water runs away except for what the trees soak up. Sue has funding to pay crews to come in and get rid of them, at no cost to the landowner.

“I meet with the landowners and ask them what they want from their land,” she says. “I ask them what they see in their minds as a best-case scenario. ‘Do you want your stream beds choked with Russian olives so no cows or other animals can get down there? Do you want to not be able to ride a horse along the river?’ Some

people like Russian olives because wild turkeys live in them and they love wild turkeys. So I can’t help them, and that’s OK. I can’t force anyone to do something they don’t want to do, because none of this is going to work unless the landowners take a stake in it. If they don’t want to go into it as partners, then it won’t work.”

“And how’s it going?” I ask.

She says that while things improved over the last year, it hasn’t always gone well, at least with some of the locals.

“It’s hard to form partnerships here because I’m an outsider,” she says. “They don’t know who I am, and they’re not used to having someone knock on their door and say, ‘Let’s talk about those Russian olive trees down on your creek.’”

I tell her my theory of the two cul-



tures, the two cosmologies and how the two sides see everything differently and there's not much getting around it.

She's not impressed. She's not going to accept a theory that ends with no possibility of change.

"It's one river system that runs through this whole area," she says. "If we act collectively, we can end up with a productive and sustainable community. But if things stay the same, then everybody ends up working independently and the river is cut up in parts, where people act like what they do doesn't impact everybody else. But that's not possible, because we're all in the same watershed."

So I call Dell LeFevre, one of the few remaining local ranchers, bishop of the

Boulder LDS and ward, current county commissioner, a strong political force in the area. I've interviewed him before, but he doesn't remember me, says he gets interviewed too often.

He's on his cellphone, driving a semi with a load of hay from Panguitch back to his ranch in Boulder. He says he'll meet me at the Frosty Freeze in Escalante.

It's a calm autumn afternoon, the late sunlight on leaves just beginning to turn. We sit at a picnic table next to the sidewalk. Dell's 75 years old, currently in remission from stage-4 cancer, but still looks and talks a lot like actor Slim Pickens, who played Major "King" Kong, the bomber pilot, in *Dr. Strangelove*. He and his wife have adopted and raised 14 kids, all from developing countries. He

knows I'm the enemy, the liberal media, but he's the man, the go-to guy in this part of Garfield County, and he's going to tell it like it is.

"How can I help you?" he asks. "What is it you want to know?"

"So there's this new citizen's group, ERWP, that's trying to restore the watershed, but apparently the locals are not coming to their meetings. I'm wondering if it's true. When we met before, you said there was a war going on between 'the Hitlers and the Jews,' and you were the Jews and the government and the environmentalists were the Hitlers. Is the war still going on?"

"The truth is, we've lost," he says. "They're going to get us one way or another. They want to shut down the grazing on public land."

"But," I say, "ERWP's not trying to stop grazing. They're just trying to cut down Russian olives and bring back the grass."

Then, for some reason, LeFevre is telling me about his service during the Vietnam War, when he was stationed in the Aleutian Islands and spying on the Russians. Then he got injured and was sent to a hospital in San Francisco, where part of his recuperation involved "rolling hippies in the park." That was back when he liked to drink beer. He speaks of it fondly.

LeFevre's smart as a whip, funny and kind of charming. He tells me a story about a woman in his ward who came to him for church assistance, money to pay the bills, and he told her it would be no problem but he'd like her to sweep the church once a week, and she told him he wasn't a real bishop at all.

"I said, 'Ma'am, you know that and I know that, but apparently God does not.'"

"But what about the ERWP people?" I ask. "Why don't you go to their meetings?"

And he says, "They're the ones who shot our cows, cut our fences and burned our line cabins. You're talking to someone who's a bit bitter."

"When did that happen?"

"Back in the '90s," he says.

Actually, the cows, the fences and the line cabins belonged to Dell's father-in-law. The family later sold the grazing permit to the Grand Canyon Trust, an environmental organization interested in restoring the riparian areas along the Escalante River by removing the cattle. LeFevre, along with Garfield County and other ranchers, then sued the Trust, claiming it was illegal to buy a grazing permit and not use it for grazing. The Trust fended off this and other challenges by keeping a smaller number of cows on some of the grazing allotments it had purchased.

"My thing is," LeFevre says, "the group that's doing this, some of them are the ones that had the most say in getting us off the river."

I'm pretty sure this is just not true



ACE KVALE

"They're the ones who shot our cows, cut our fences and burned our line cabins. You're talking to someone who's a bit bitter."

—Dell LeFevre,
longtime Escalante
Valley rancher

"The ranchers and county governments are running the monument. The BLM is frightened and paralyzed."

—Mary O'Brien,
Grand Canyon Trust



A cowboy drives cattle along the Hole in the Rock Road on the Grand Staircase-Escalante National Monument, where grazing is permitted on 96 percent of the land. ACE KVALE

A monumental tug-of-war

Much of south-central Utah, from the Aquarius Plateau to the red-rock desert, has been grazed for more than a century by Mormon settlers and their descendants. But when President Clinton designated 1.9 million acres of the area's forests, canyons and mesas as Grand Staircase-Escalante National Monument in 1996, local ranchers feared that the Bureau of Land Management would start to cater just to recreationists and push their cattle out.

But that hasn't happened. Grazing

was grandfathered in, and more than 96 percent of the monument is still open to cattle, with 102 permittees on 82 allotments. The ranchers wield a lot of political power, which is one reason that the monument's top managers don't stick around long. (There have been six since 1996.) The BLM is only now devising its long-overdue grazing management plan. Even some monument staffers think that "the ranchers and county governments are running the monument," says Mary O'Brien of the nonprofit Grand Canyon Trust. "The BLM is frightened and paralyzed."

Environmental groups had hoped for large reductions in the number of cows roaming the monument's fragile desert soils and riparian areas, but have managed only a few small wins. In 1998, the Grand Canyon Trust began buying grazing permits from willing ranchers, eventually acquiring leases on about 344,000 acres of the monument. It relinquished some of the permits to the BLM, which closed some allotments to grazing, established some as grass banks, and reduced cattle numbers on others. Worth Brown, then-chairman of the Canyon County Ranchers Association, told a local newspaper in 2002, "The BLM is working with preservation groups to put us out of business."

However, a federal memorandum issued that same year has made it difficult for future buyouts, by forcing the BLM to first declare that lands within grazing districts are no longer "chiefly valuable for grazing" before allowing a permit to be retired.

And that's a declaration the BLM has been reluctant to make in the monument, even though studies in the early 2000s indicated that roughly 65 percent of its

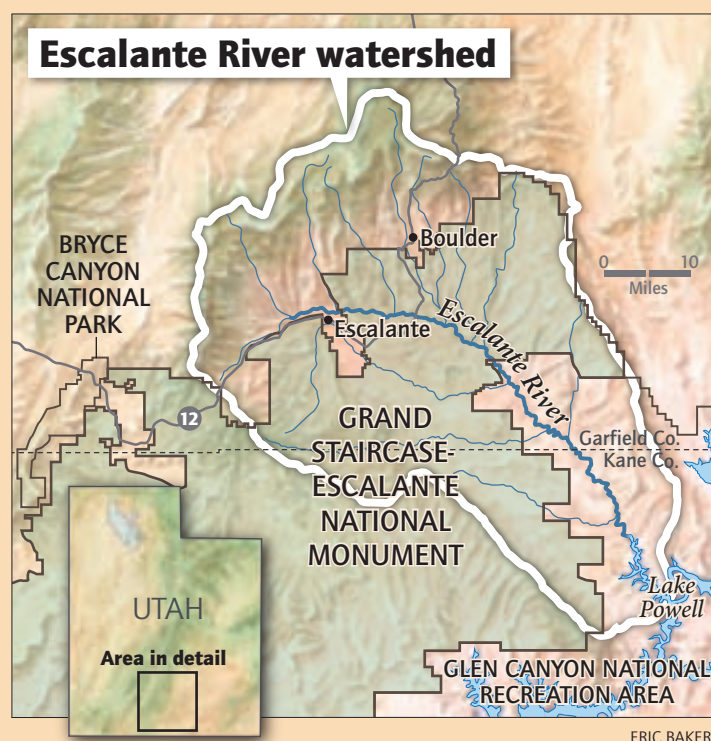
grazing allotments failed to meet "range-land health standards." Another assessment in 2008 — which conservationists denounced as a surrender to ranchers — found that about 20 percent of the allotments did not meet the standards.

Last month, the agency finally released a draft environmental impact statement for its grazing plan. The analysis includes five proposals for varying levels and amounts of grazing. The Grand Canyon Trust is trying to get the BLM to include a "Sustainable Grazing Alternative" among the options. That alternative would establish a process for allowing relinquished allotments to become permanently cow-free, allow public participation in decisions about grazing, and set a goal that livestock will not harm wildlife habitat.

Meanwhile, in mid-January, two Republican Utah senators, Orrin Hatch and Mike Lee, announced their Grand Staircase-Escalante National Monument Grazing Protection Act, which would "preserve the grazing rights that Utah families have used for generations," and prohibit the BLM from reducing grazing.

That protection might turn out to be a double-edged sword, though. "It's pretty ironic that, as climate change unfolds and these guys have no grass to graze," says Bill Hedden of the Grand Canyon Trust, which hasn't been able to buy out a Grand Staircase permit since 2002, "all we can say to desperate ranchers who approach us about a deal is, 'Good luck, guys, your political champions have protected you from the possibility of a voluntary buy-out.'"

—JODI PETERSON



ERIC BAKER

and he's saying it for effect, somewhat inflammatorily.

"Who do you think did it?" I ask.

"I think it was someone from the federal government," he says.

"Does it bother you they base everything in science?" I ask, trying to test my theory.

"I don't believe a lot of science," he says. "Like climate change. The earth may be getting warmer, but things change all the time. You have to go with it."

"And if it's getting warmer now it's because God wants it this way?"

"That's right," he says.

Over at the next picnic table splotches of sunlight through the trees are flickering on the faces of three blonde siblings, all under 5 years old, each holding ice cream cones like fish between their hands.

DENNIS BRAMBLE IS A BIOLOGIST, retired from the University of Utah. He used to study evolutionary morphology. Now he studies grass in the Upper Valley.

"I prefer to call it rangeland science," he says.

He lives in Escalante but owns 160 acres of what used to be rangeland for cattle in the Upper Valley. We're going there now in his pickup truck, 15 miles west of town.

"The riparian areas along the streams in this watershed used to be thick with grasses, more than 40 different species," he says. "But the land was severely overgrazed and the grass, in a lot of areas, is gone now. I've been experimenting on my land to see what it takes for the grass to come back."

Bramble has white hair and wears glasses that are a little crooked. He's a member of ERWP and he goes to the meetings. He's tall and thin and soft-spoken, quiet or listening most of the time. He hands me a book that's been riding on the seat between us. It's a master's thesis from 1954, hardbound in leather, a hand-typed carbon copy of the original: *The Impact of Man on the Vegetation and Soil of the Upper Valley Allotment, Garfield County, Utah*. It might be the only copy in existence; Bramble found it at the University of Utah library.

"I'll show you my land today, but I think you should read this book and then we'll come back and it will make a lot more sense."

The thesis is a scientific report written by an insider, Heber H. Hall from Boulder, Utah, now deceased. It presents a history of grazing on the very land that Bramble now owns and includes testimony from original pioneers who admit that they destroyed many of the grassland areas in the watershed by overgrazing.

According to the first-hand accounts, when the Mormon pioneers first came to the Escalante Valley in the early 1880s, the grass along the streams was so high that herds of sheep would disappear in it. The riparian areas were lush and diverse



Volunteers at the organic farm connected to the Hells Backbone Cafe, a favorite of travelers and newcomers to the valley. ACE KVALE



in species, like veins of living gold the pioneers mined with livestock. They brought in 60,000 sheep and 20,000 cows, and within two decades the grass was gone.

Grass helps the soil to function as a sponge in a variety of ways, especially by intercepting water that would otherwise run freely off the land and helping it to, instead, infiltrate the soil where it is then actually stored. If the grass dies, the sponge dries up. Then, if there's a flood, the water becomes a knife that cuts the sponge in half, leaving a gap, or arroyo, in between. Now the stream is suddenly five or 10 or 40 feet lower than it used to be. There's no more water on top, and the only plants that can grow in the arid soil are sagebrush and rabbitbush, neither of which are eaten by cows. This

is what happened to many streams in the Escalante watershed.

Hall writes:

"These pioneers, obsessed with mis-conceived ideas of unlimited abundance of forage for their livestock and water for their arable land, did not perceive that these lands and their products could be destroyed. Their main interest was to reap the harvest that Nature had planted for them without considering what effect the increasing number of sheep and cattle would eventually have upon this harvest. ... The initial floods, devastating and uncontrollable, descended upon their privately owned land, ripped open irrigation canals, destroyed dams, trenched and deposited debris on the cultivated fields, rendering them sterile. ... Such early de-



A creek, tributary to the Escalante, runs through private property that was cleared of Russian olives through one of the programs under the ERWP umbrella. ACE KVALE

struction to the land was believed, by these early settlers, to be acts of God, punishing them for moral sins committed."

By 1920, the number of cows and sheep in the watershed had dropped by half. By 1950, according to Hall, livestock productivity had dropped to 10 percent of what it was in the beginning, and nearly 20 percent of the people in Escalante were on government or church relief.

"Little comfort can be found in the fact that the same generation that brought such catastrophe to this once fertile valley lived to reap the poverty of their folly."

Hall's tone in his summation is a little caustic, and I wonder if maybe he had something of an ax to grind with his family and friends back in Boulder. Then I run into Dell LeFevre again and I show him the book and he explains what happened.

"Heber was my uncle, and I buried his brother today," he says as he paws the pages. "But he couldn't have written this because he couldn't spell any better than I do." He hands it back to me.

"In the acknowledgements," I say, "Hall thanks his wife for proofreading and typing the manuscript, so maybe she helped him with the spelling."

LeFevre tells me that Heber went away to the Second World War and never really came back. He wound up in Salt Lake City and went to the University of Utah to study science. He became an environmentalist.

"We lost him," LeFevre says.

I GO BACK TO THE UPPER VALLEY with Dennis Bramble and we sit in his truck on the 200-foot-long bridge over the arroyo that cuts through the bottom of the valley.

"According to Hall," Bramble says, "this valley used to be a flat, grassy meadow, and the bridge over the creek was only five feet wide. Now the stream is 30 feet below us. The water table has dropped to there and the banks of the stream are covered with sagebrush and rabbitbush. No grass, no willows or cottonwoods. This is the place Hall was describing in his book."

As an experiment, Bramble has built two exclosures on his land, just above the arroyo. An exclosure is a fenced-off area designed to keep cows out, not in. Deer and elk can easily get inside by jumping the fences, but Bramble says they rarely do. Small native grazers (rabbits and voles) have free access to the vegetation inside the exclosures.

We walk inside one of the exclosures and it's obvious that there's a lot more grass, and a lot more kinds of grasses, inside the fence.

"We only graze inside the fence in the fall," he says. "In September, maybe October. The idea was to see what will happen if we reduce grazing pressure and the season."

He's walking around, bending over, looking closely at the different kinds of grasses.

"Here's some thick spike wheat-grass. ... That one's blue gramma...some needle-and-thread here. That's Indian rice grass over there. These are native species, but they weren't here before we put up the fence and reduced the grazing pressure. They came back on their own. We've quadrupled the number of grass species without planting anything."

In between the patches of grass there are clumps of dead rabbitbush. The rabbitbush on the outside of the fence are do-

ing fine, very healthy. But the rabbitbush on the inside is dying.

"Are you killing the rabbitbush on purpose?" I ask.

"I'm not killing them," he says. "The voles are killing them."

"Voles?"

"They're relatives of lemmings, meadow mice. They eat the same things as cows and sheep. They like grassy, open, sunny places. They were living down by the creek where it's more moist, but when we changed the grazing to the fall, they moved up here. The problem with grazing in the early summer is the grasses don't get high enough or dense enough, the ground stays too hot and dry for voles. They're out-competed by cows. But if we keep the cows off until fall, the grass gets big and the ground stays moist and the voles come in, and then in the winter they eat the bark and roots of the rabbitbush, killing them, making more area for grass. I think voles are the major driver in restoring the meadows, and they do it by killing their competitors, the rabbitbush."

"Have you explained your results to the local ranchers?" I ask.

"I don't think they're going to listen to me," he says. "I'd be asking them to change their grazing practices, and there's just too much inertia in the present system. They seem fearful of change."

"Yes," I say, "that may be true, but mainly I think it's because you're a scientist, and you're not from around here." I'd been told as much by more than one insider — they admit scientists are smart, but they don't trust them.

Later, Bramble says that he disagrees with this characterization. Both Heber H. Hall and his mentor at the University of Utah, Walter P. Cottam, were members of the LDS Church, and both were conservationists.

"Cottam was a distinguished professor of botany," Brambles says, "the first person of prominence to openly call public attention to the severe problems created by the chronic overgrazing of Utah's public lands, and a co-founder of The Nature Conservancy. These individuals and others demonstrate that progressively oriented persons do occur in these communities, although they are uncommon. The factors that seem most influential in opening the minds of such individuals are exposure to the outside world and, especially, education."

He thinks my theory about the underlying problem of different cosmologies is both shallow and wrong, and worse still it tends to "further poison the well in ways that will make meaningful dialogue within the community even less likely.

"It's not the religion *per se*," he says, "but rather the long-term cultural, political and economic isolation of these communities that is most responsible for the standoffs between insiders and outsiders in places like Escalante."

LINK CHYNOWETH, bishop of Escalante's

Second Ward, is a third-generation farmer and rancher. We sit in his living room looking out the windows at the church property he manages, growing high-quality hay for horses. He's a calm man, thinks before he speaks.

"I feel they don't understand us," he says. "Like, I went to a Monument Advisory Committee meeting here in Escalante in the spring, and when they opened it up for public comment all the Great Old Broads for Wilderness spoke against cattle grazing on public land. When it was my turn, I said, 'You all speak like we're here to make a quick buck and rape the land, and I'm here to tell you that's not the way it is. Everybody agrees this area was overgrazed in the past. Where there were thousands of cows, now there are dozens. But I'm a conservationist, I'm not here to destroy the environment. My family's had the permit on Cottonwood Wash for three generations. We take care of it, and I want my grandkids to care of it, too.'"

I confess to him, the bishop, that I've been wondering if there's a way for the two sides to talk to each other, but I've failed to come up with anything.

"I don't think it can happen," he says. "So many people on my side, we don't want to sit down with them. We'd rather stay away from them. I don't think that's the right approach — we need to give input and there should be dialogue — but do I think there will be? No. There's

too much suspicion and distrust on both sides.

"My main focus," he says, "is to live a good life centered on my religious beliefs. For me, the way I see it, the earth and the environment are based in the biblical story of creation — God created the earth for man, and man is the steward over the land. But, for them, God *is* the earth, God *is* the environment."

"Yes, exactly," I say.

"So that means you can't do anything that threatens or damages the earth or the environment. What I don't understand is, just the fact that you live on the earth damages it. I mean, if you're going to take the cows off the monument then why not put up a sign that says 'No humans past this point'?"

"So you're not going to go to the ERWP meetings?" I ask.

"Well, they don't come to ours either," he says.

I go back to Sue Fearon and tell her what I've been hearing from the locals, not just Dell LeFevre and Link Chynoweth, but others who were even less diplomatic. I tell her it seems like there really is a cultural gap that has to do with different ways of answering the questions of who we are, where we came from, and where we're going. She says I don't know enough about the day-to-day interactions between people who live and work together down there. Fearon,

for example, is the clerk for the local soil conservation district, a decidedly "insider" organization. She hunts with insiders. She even shows up, uninvited, at what she calls "the Old Man's Club" — retired locals who meet for breakfast in a local restaurant.

"I used to see just the differences, but now I see a lot more common ground," she says. "The common parts are not rooted in religion, or the political stance of the politicians, or *us and them*. Those are the differences, the shit you have to scrape off to get the point: We're all in this watershed, it has meaning to us as individuals, and therein lies the common ground. The difference is not about truth, it's about perspective. I do this all the time with people in southern Utah — we agree to disagree and then move on and, generally, have productive and respectful relationships."

Sue's right. I don't live down here and perhaps it's wrong for me to impose my theory on a cultural environment in which I am really the "outsider." They're going to have to figure it out for themselves. The Escalante River Watershed Partnership is an attempt to work through the problems. They're trying to bring everybody together around the same table to find what John Wesley Powell called the "simple logic" of the community. I wish them the best of luck. □



Scott Carrier is a writer and documentarian based in Salt Lake City; his books include *Running After Antelope*, published in 2001, and his radio pieces have been aired on radio shows including *Hearing Voices*, *This American Life* and *All Things Considered*.

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

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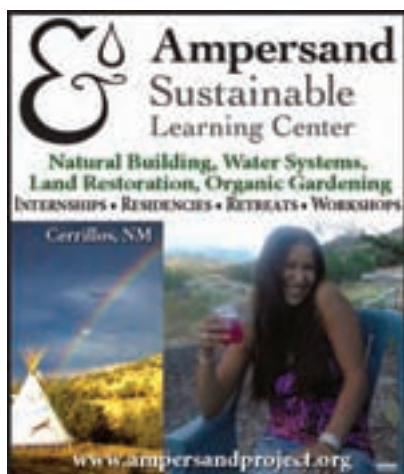
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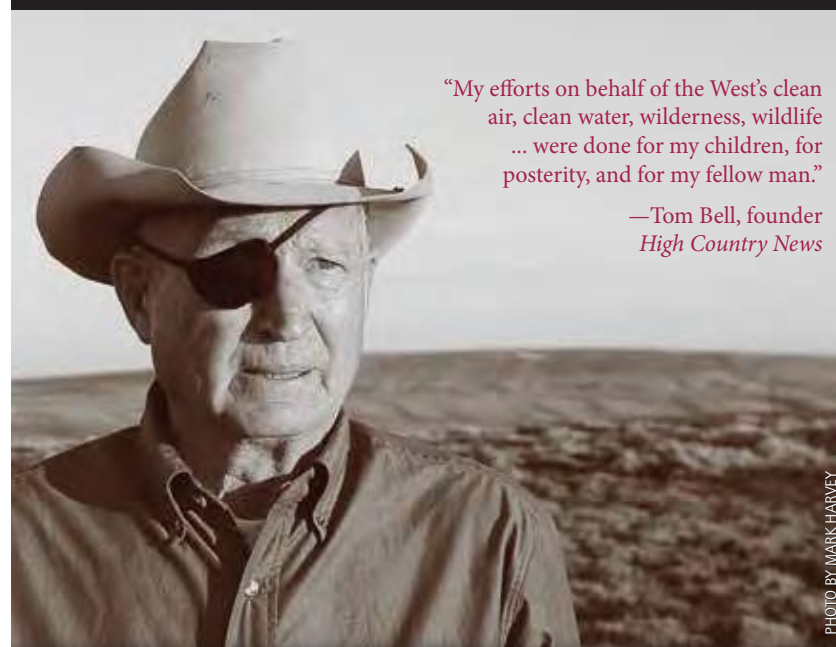
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Turtle Bay's McConnell Arboretum & Botanical Gardens

summiting to splashing in the water with the family. Redding's many kayak, stand up paddle board, bike, and boat rentals let you try

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Pale hope in a dreary place

Set in modern times, in a small “passing-over place” in northern Utah, Idaho author Braden Hepner’s debut novel follows Jack Selvedge, a 20-year-old dairy farmer working his grandfather’s land, struggling against his own indifference. Young Rebekah Rainsford shakes things up when she returns to town, fleeing her abusive father. She becomes Selvedge’s obsession, a symbol of hope. “She had brought with her an essence. ... It was a sullen thing she carried, in some ways frightening and in some ways appealing and in all ways maddening. It was something he needed but could never get in the remote and meager collection of houses. ...” As their relationship forms, her dark history forces him to confront the chasm between his ideals and reality, while two

major betrayals threaten everything. Hepner captures the nuances of the dramatic landscape of the Cache Valley, where cultivated fields give way to desert and mountains rise up against open skies. He employs a meditative language drawn from the land, delivering the richness of Selvedge’s inner life: “On the gentle hillside bones stood from the sand and yellow grass like ruins, the white architecture of death. How to describe what flowers grew from those bones in the springtime. Of deep purple and yellow, blue and red and white. Each one a marvel worth contemplation. How many times had he stopped to watch them tremble in the wind among the white bones.” *Pale Harvest* is a dark novel by a deft storyteller, a modern retelling of the

legend of Adam and Eve. It explores tensions between good and evil, ignorance and knowledge, and hope and belief. The occasional appearance of phrases like “primitive and beautiful squaw” does nothing to further the characters; Hepner does a superb job of making them full and authentic, and doesn’t need to resort to language of exoticism and conquest. *Pale Harvest* walks the reader into the liminal spaces between life and death, and shows how a human being can be made anew. “Hope was his faith, his religion. It was the consequential vestige of maturity, of knowledge, a remnant product of adult sin. In the end they had nothing more than a hope commensurate with their fear, and in this way they were purified and set free.”

BY SAMANTHA UPDEGRAVE



Pale Harvest
Braden Hepner
366 pages,
softcover: \$16.95.
Torrey House Press,
2014.



Dumptruck, from the author’s photo research for Pale Harvest. BRADEN HEPNER

Shooting life’s rapids

In Pete Fromm’s new novel, *If Not For This*, the newlywed narrator, Maddy — a river guide in the Rocky Mountains — wonders how to avoid the “wicked-ass snags” that so often upset marriages. What’s going to keep the union between her and her husband, fellow-guide Dalt, from running aground on “those long, gray, dry gravel bars”? Unfortunately, their marital raft capsize early on, when Maddy is diagnosed with multiple sclerosis soon after conceiving their first child. The unmistakable symptoms, increasing in frequency and severity, are rendered in spare but devastating prose. MS “turns the ground liquid, steals your memory, pulls words off your tongue before you can open your

mouth”; it ignominiously “swirls your balance into some kind of joke.” Maddy and Dalt’s fledgling outfitting business founders, and they are forced to give up their dream and move into town. Crippling disease — the curse of physical helplessness — seems to strike especially hard at those who wrest joy, meaning and livelihoods from their physical prowess, Fromm suggests. But buoyed by Maddy’s feistiness, the story never turns mawkish or melodramatic; throughout the decades of her decline she despises self-pity, finding strength in Dalt and their children. In passing, Fromm — a Montanan and former river ranger — spotlights some of adventure tourism’s shadow aspects: long days, lack of health

insurance, liability suits and homeless river guides “priced out of the valley we worked so hard bringing people into.” Yet the work beats “swinging a hammer just to live for the days off,” and there are fringe benefits, such as “getting to stare at the Tetons all day, watch the sun gold them every morning, turn them stark and flat through the day, leaving nothing but purpled cutouts against the evening.” Throughout, Fromm broaches what might be the whitewater professional’s chief existential dilemma, a thought that assails us all: “How could you ever make a move if you knew what was out there waiting for you?”

BY MICHAEL ENGELHARD



If Not For This
Pete Fromm
240 pages,
softcover: \$15.95.
Red Hen Press, 2014.

My kind of town: Livingston, Montana

When the preacher said doctrine wouldn't allow my sister to join the Girl Scouts, he learned something about my mother, who turned around, shut the door and just walked away. Every time I walk past that church, I remember why I so rarely tried to tell my mother what to do.

A busy supermarket stands just up the street. There used to be a root beer stand there, and the thought of it churns memories of my grandmother, generally a soft touch for a frosty mug.

Around the corner is the tiny house Mom rented when we first moved into town, after her divorce, right across the street from the school where they told her women teachers weren't worth as much as men. That policy turned her into a lifelong union member. Like I said, there wasn't much point in trying to tell her no.

On the other end of town, I often pass the house where I got my — astonishing — first real kiss. The taste of lips and the texture of tongue can sound pretty sour to the early adolescent mind, but Debby Sanders converted me.

When John Lennon died a few years later, I was sitting in a house on the corner of F and Geyser, watching TV with the sound off and the stereo turned up. It took a couple minutes for the reality to soak through the fog.

These are the kind of ghosts I find on my daily walks around Livingston, Montana, my hometown.

For a place with only about 7,000 people, Livingston is pretty well known. Celebrities hang around and the scenery astounds. Three mountain ranges bulk up here and millions of tourists pass through, usually on their way to Yellowstone Park, just up the road. The Yellowstone River shoulders by, mostly a delight and sometimes a menace but always a marvel, untamed in spite of us. We've got wildlife all over the place and we have our famous wind, with gusts that roll semi trailers and motor homes, and once even a train, out by the truck stop. Serious crime is rare, but we live in the world: In 2011, two sheriff's deputies killed a man who had shot and wounded a woman multiple times.

A Google dump could tell you most of this. But it can't tell you who we are. That's what the ghosts are for, if you

listen to them.

I've spent most of my life here, so I see these ghosts a lot. They don't pull at me, or make me particularly sad or happy. They just exist, like gravity, issuing reminders and providing weight.

It wasn't always like this. They used to scare the bejeebers out of me.

A generation ago, I returned to Livingston after a long stint of foreign adventures — the swarm of Asian cities, body-surfing in New Zealand, learning that a chicken's monetary value soars if you run it over with a motorcycle.

The concept of coming home started to percolate in Seoul, Korea, on a sunny afternoon when a little bird flitted over my head, and I hit the deck. There had been riots and I thought somebody was aiming a stone at me. Slogging through tear gas makes a vivid memory, but what really struck me, after I regained my feet, was the rarity of birds in that city.

It took a while to come home for good, partly because when I got here, the ghosts rattled me, made my feet itch to leave again. They were everywhere, peeking around corners, lifting a curtain

Back home, the
tables turned
and the stories
sought me,
popping up
everywhere.
I didn't know
that familiarity
could frighten
so.



to watch me pass, telling their stories. Mrs. Working was a crabby woman, impossible to satisfy, while her neighbor, Mr. Hokanson, could always spare a minute for a kid. A giant boy named Phillip sat next to me in second grade; he couldn't speak a word, but a shared crayon always made him smile. (He liked the red ones.) Leo Schaeffer had 11 kids of his own but loved engaging in apple fights with the neighborhood hooligans. Willie Moffett, handsome and impish, joined the Marine Corps, and I never saw him again. Perry Herbst disappeared, too. By the time Kenny Fleming died, he didn't add much weight at all to the first coffin I ever carried. I have no idea what happened to Debby Sanders, she of that first kiss.

I thought the best stories lay in unknown and exotic places, so that's where I sought them. Back home, the tables turned and the stories sought me, popping up everywhere. I didn't know that familiarity could frighten so.

It took a while, but I learned to appreciate the stories. They were part of me. Midge Taylor's good advice at her cluttered table still provides a flicker of warmth when I pass her house. Mickey Livermore's giant fist taught me to watch my mouth. The bowling alley where I played pinball is now a mental health center.

Don't get me wrong. I'm fully capable of ignoring these ghosts, especially if I'm in a hurry or preoccupied. Most people have similar memories, I suspect. But most people don't live in the town where they grew up, so their ghosts suffer the erosion of time and distance.

My ghosts don't seem to fade, especially since I've been walking more, trying to wrestle back the middle-aged flab. They've taught me to see their stories as a yardstick, a measurement of how things change.

On M Street, I remember how the kids ostracized Dolly McNeill, and I wonder if modern schools could have nipped

that in the bud. On Yellowstone Street, I recall the crush I had on Jill Glenn, the most beautiful girl I'd ever seen. Up by Winans School, I remember the satisfaction I felt when Benjie Schweniger knocked the snot out of the worst bully in junior high school. On Eighth Street, I remember the woman they called Dirty Mary, who raided garbage cans for food and suffered endless taunts. We didn't have a mental health center then, or a food bank either, though we probably needed both.

On some blocks, I can name somebody who lived in every house at some point in time. But I often can't name the people who live there now. I wonder: Do they know the stories of their homes?

A great scary, hairy man used to drink beer on his porch on the corner of Eighth and Clark streets, wearing a T-shirt and scowling at the summer hubbub. My friend Dave Eaton lives there now and laughs at that story. But what about the house on F Street where a man impregnated his wife's 12-year-old daughter, with his wife's full cooperation? Somebody else lives there now. The yard is neat, the dog is friendly, a tricycle is stowed on the porch and the walks are shoveled. I'm not about to go knock on that door and spill those particular beans.

But the ghosts know. They've watched things change. They've seen our cruelty and our kindness. They've watched us bicker and then come together when the river floods or a house burns or cancer strikes. They've watched schools close and new banks open. Livingston has more wealthy people now and fewer children, and I wonder if the ghosts realize there's something off-kilter there.

Most of the railroad jobs are gone, but there's a dozen art galleries. The neighborhood grocery stores closed up ages ago, but we have better food now. A bin of avocados or a jar of kimchi no longer puzzles people, and tuna doesn't have to come in a can. In many ways, I like my town better now. It's more open-minded and more generous, I think. We've certainly become more cosmopolitan, with creative people from all over the world passing through or planting roots, living out stories that will be somebody else's ghosts someday.

But I'm glad my own ghosts are still here, the old ones reminding me of people now gone, people who died or chased a dream or maybe just found a job somewhere else.

They're OK, these ghosts. I'm used to them now. They can walk with me any time.

Scott McMillion is the editor of Montana Quarterly, where a version of this essay originally appeared.

**Livingston, Montana
on the Fourth of July.**
JAKE LUTTINGER





HEARD AROUND THE WEST | BY JONATHAN THOMPSON

IN THE DEEP

Allisa and Mark Oliger, from Durango, Colorado, like to spend New Year's Day diving, often in the cold, murky waters of Lake Powell. Typically, they see a few fish, maybe find sunken treasures like golf balls or broken fishing poles. But this year, 30 feet underwater, they found a GoPro camera — the kind people attach to their bodies to record both the mundane and the insane. The camera, in a waterproof case, survived, as did its memory card, which held video clips and photos of young men on a road trip. Allisa scoured YouTube for similar videos and — surprisingly — found a match. Turns out the camera belonged to a guy named Dan Burkovskiy, who had made, and partially filmed, his cross-country moving trip from Massachusetts to California last June. During his group's stop at Lake Powell, their kayak flipped, sending the camera to a watery, albeit temporary, grave. Oliger found Burkovskiy on Facebook and returned his camera, attracting national media attention in the process. That's the good news. The bad news? When the camera was recovered, it was plastered with zebra mussels, a pesky invasive species.

BIRDLAND

Oh, if only Ron Jaecks had a GoPro that Tuesday morning in January. Jaecks was doing his usual run through Bush's Pasture Park in Salem, Oregon, when someone — or something — suddenly ripped the hat from his head, puncturing his scalp, according to the *Statesman Journal*. "It was like a huge electric shock ran through my body, but also like I got hit in the head with a two-by-four all at the same time," Jaecks told the *Journal*. "Or maybe a strike of lightning." Having no clue what was happening, Jaecks screamed and ran in circles. His now hatless pate was hit again, and this time he realized that it was a winged creature — a gigantic bat, he feared. But the friend he called, biology professor David Craig, theorized that it was an owl, which attack more often than you might think.



UTAH Checkmate. PATTY WHITLEY

In 2012, parts of some Washington state parks were closed after at least six such attacks, and in recent months, owls have dug their talons into folks in Florida and Missouri. They seem to be attracted to, or irritated by, long hair and ponytails. Memo to dawn and dusk park-goers: Wear a helmet.

CRAZYTOWN

Recent research suggests that living at high altitude can affect brain chemistry in such a way as to induce either euphoria or depression. Lack of oxygen to the brain, or hypoxia, might explain both your "Rocky Mountain High" and the Interior West's high rate of suicide.

Witness Silverton, Colorado, population 500 or so, elevation 9,318 feet. During the long winters, when the influx of tourists slows to a trickle, snow piles up in the streets and avalanche danger sometimes closes both routes out of town, tensions run high. Residents pack town, county and school board meetings, and engage in late-night, spittle-heavy debates, arguing endlessly over whether the county or town should pay for the ambulance or ATVs should be allowed on town streets. The latest fracas, simmering for months and now at a rolling boil,

might be the most heated in recent memory, seemingly drawing in every resident and then some. It's also one of the oddest. Tired of the long-running feud between the town administrator and the longtime public works director — who wields great power, since he's in charge of the snowplows — the town board forced the two to publicly pledge to be nice to one another. The public works director then broke the promise at a local watering hole, allegedly warning folks that "you're either with us, or against us." The town board launched an investigation, and both employees were ultimately fired.

That's when the hypoxia really kicked in: The public works director's supporters launched a campaign of nastiness, boycotting busi-

nesses owned by those who favored the firing, pelting *The Silverton Standard & the Miner* with vitriolic letters and trying to recall one town board member. In January, after the polarized town board failed to agree on a replacement for another member — who had left town for lower elevations and higher sanity — two infuriated residents started screaming at officials. Local law enforcement had to extricate them, and town hall was closed to the public so that those employees who hadn't quit, been fired or gone crazy could get some work done.

"It's easy to look at what's been going on in Silverton and see it as an implosion," San Juan County Sheriff Bruce Conrad told the *Durango Herald*. "But divisions like this are cyclic. We go through it, time to time, and we'll be out of it shortly." Some hope that the Feb. 10 recall election will end the fight. The less optimistic suspect it'll simply jumpstart the next wacky cycle. Stay tuned.

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

Tips and photos of Western oddities are appreciated and often shared in this column. Write betsym@hcn.org.



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“Lack of zoning is everyone’s problem. Why not discuss what we might tolerate before a neighbor opens up a confined animal operation of 1,000 chickens or imports 60 rusty automobiles or 180 pigs?”

Linda M. Hasselstrom, in her essay, “Let’s talk about the ‘Z’ word,” from *Writers on the Range*, www.hcn.org/wotr

Wilderness as therapist

A growing number of veterans and researchers are racing to understand nature's power to heal



Stacy Bare, above, climbs Whale's Tail in Eldorado Canyon State Park, Colorado. His first climbing experience on the Flatirons outside of Boulder, Colorado, in 2008, led the Iraq War veteran to become part of a movement to get other vets into the outdoors. A Veterans Expeditions group, far right, hikes Colorado's Mount Elbert on Veterans Day.

CHRIS KASSAR

One of the environmental movement's most legendary characters was also a traumatized war vet. You might remember George Washington Hayduke for his inventive, destructive antics, but he was also a man who measured road miles by the number of six-packs it took him to drink while driving and whose mind often wandered back to Vietnam. "What's more American," Hayduke wonders in Edward Abbey's novel *The Monkey Wrench Gang*, "than violence?"

The fictional Hayduke had a real-life model: a former Army medic named Doug Peacock. Peacock served in Vietnam during his 20s, and as he went through the violence of that war, the thing he carried was a map of the Northern Rockies. He brought it out during rare quiet moments and imagined himself in its contours, rolling over the sharp granite creases of the Wind River Mountains or the grassy meadows north of Yellowstone Lake. When he returned from the war, he returned to nature, studying grizzlies for several decades and fighting for their federal protection, as well as for that of other threatened species. These days, the 72-year-old activist and writer has become a new role

model, not just for greens, but for a new generation of veterans.

"What they need to do is go out and immerse (themselves) in the wild," he said recently. "Let it wrap around you. See what it does to you."

The idea of wilderness as therapy for veterans is nothing new. In recent years, a growing number of such programs are springing up around it. But in order for it to work on the scale that's needed, its supporters are going to have to get the military behind it. And that's where the difficulty lies.

There are some 21 million American veterans today, 4 million in the West alone, who have served in places from Vietnam to Iraq to Afghanistan. Half of Iraq and Afghanistan vets have received mental health diagnoses including post-traumatic stress, which can lead to high rates of alcohol or drug abuse, domestic violence and suicide. In 2010, an estimated 6,000 vets committed suicide — on average 16 a day, and 20 percent of the U.S. total. More soldiers have died from self-inflicted wounds than service members died in combat between 2002 and 2013.

The federal Department of Veterans Affairs is supposed to help, but the

agency seems overwhelmed. Treatment rates have improved in recent years, but 242,000 vets report not receiving treatment within four months of requesting it. The VA predicts it will treat 6.6 million vets in 2015.

A persistent lack of funding and increasingly common and hard-to-treat problems like traumatic brain injury have combined with bureaucratic red tape to breed distrust among veterans about the agency's effectiveness. A national scandal last year, when it was revealed that the VA had exaggerated how quickly it was treating people, made things even worse. A recent survey showed that almost a third of veterans with PTSD or traumatic brain injury now drop out of treatment, citing lack of progress, and the same number never bother to ask for help.

Meanwhile, a growing number of vets are finding ways to help themselves — particularly in the wild. A leading proponent of this approach is Stacy Bare, a 36-year-old Iraq War veteran and the director of Sierra Club Military Outdoors, a prominent wilderness program for veterans. At 6-foot-7, broad-boned and with an impossibly deep baritone voice, Bare is an imposing figure, one who is inspiring to many service members finding their way through trauma. A climber, skier and mountaineer, who likes to end his emails with the message "Stay stoked!" Bare is well aware of the benefits of nature.

"We know intuitively that outdoor recreation can provide a quantifiable mental health benefit," he says. "But for policy and for funders, we have to make sure that we have strong monitoring and evaluation behind it."

That's because, while there are a growing number of one-off partnerships between outdoor organizations and local VA hospitals, the VA as an entire agency is not fully on board with wilderness as therapy. And that's because Bare and others can't prove that it works. "Across the board, people haven't done a good job showing the results," he says. "We've done a lot of nice things for veterans, but what are the things that really work?"

Right now, there's a wide range of existing wilderness programs for vets: The VA partner Wasatch Adaptive Sports gets them skiing and camping outside Salt Lake; Project Healing Waters takes them fly-fishing around the country; Idaho-based Higher Ground hosts eight-week sports camps for vets and their families; the Army's own Warrior Adventure Quest

BY TAY WILES

teaches “alternatives to aberrant behavior,” such as paint ball, rock climbing and scuba diving. Outward Bound Veterans and Sierra Club Military Outdoors take hundreds of vets outdoors each year.

But just because these kinds of programs appear to be working doesn’t mean that researchers understand how. And until that happens, it will be hard to create a coherent, officially sanctioned program, especially through the VA writ large.

“I think there’s interest, but there is not necessarily a national acceptance of adventure-based experiences within the VA,” says psychologist David Scheinfeld, director of research for Project Rebirth, a nonprofit that develops healing programs for first responders and vets, who recently became a post-doctoral fellow for the VA in Austin, Texas. “The VA needs data showing it’s effective, safe, that it’s worth supporting.”

Scheinfeld is working to provide that data. Last fall, in partnership with Outward Bound, he studied the psychological impacts of outdoor experiences for veterans. Though not yet peer-reviewed, that study is one of the closest examinations of the value of nature in treating war trauma. Scheinfeld observed how anxiety, sense of purpose and other health indicators changed for 199 vets before, immediately after and one month following an outdoor experience, such as mountaineering or backpacking for a week. The majority of veterans showed improvements, including increased willingness to seek

professional help, lower rates of depression and enhanced feelings of social connection, though some of those changes tapered off after a month.

This kind of research could also help assuage critics who say outdoor companies and guides stand to profit from more widespread programs.

“The VA (is) very data-driven,” says Jennifer Romesser, a clinical psychologist at the Salt Lake VA, who helps run veterans outdoor programs. “That’s why this research is so important.”

Stacy Bare and a growing number of “stoked” vets know this, so they are working hard to get the VA the data it needs to act. Bare is now helping with a three-year pilot study, bringing together Sierra Club Military Outdoors, Outward Bound, Project Rebirth and Georgetown University.

The study will gather groups of nine to 12 veterans and integrate therapeutic outdoor experiences with more traditional mental health treatment, testing the effects while researching ways to partner with local VA centers. (The first group will spend a week in April rafting Cataract Canyon in Utah with Outward Bound.)

As part of the three-year study, 37-year-old Josh Brandon, who served three tours in the Iraq War, is establishing research hubs in Washington state. Like Bare, Brandon is sold on nature as therapist.

Brandon served as an infantry officer

in the Army in his first tour in Iraq — “like the guys on TV, who are dirty, have rifles and are getting into street fights.” As an advisor to Iraqi forces in 2006, he saw civil war and ethnic cleansing in Baghdad. By the beginning of his third tour in 2009, he was drinking pretty hard, but by the end of it, he told me, “I came home with ‘death eyes.’”

He tried the VA, but at the clinic in Lakewood, Washington, he saw soldiers with amputated limbs and gruesome scars, and “it scared the shit out of me,” he recalled. It also convinced him that other vets needed help even more than he did. He started getting together with Army buddies, doing crash courses with a local mountain guide, and then going out on expeditions, where teamwork and goals created a positive space for recovery. On his first attempt to summit Mount Rainier, he ran into 60 mph winds and rock falls. It was, he says, “awesome.” Somewhere along the way, the death eyes went away.

Brandon says his main goal remains getting vets the help they need. But he’s discovered an interesting fringe benefit: Not only can nature help vets, he says, but they can return the favor — by helping nature. And a recent survey showed that 75 percent of post-9/11 war vets who live in Western states favor federal protection of public lands. Much like Hayduke, Brandon has become a warrior for the wilderness. And he’s not the only veteran who feels that way, he says: “I call it defending our land a second time.” □



A 2-year-old pallid sturgeon.KATIE STEIGER-MEISTER/USFWS

THE LATEST

Backstory

In 1990, “the dinosaur of the Missouri River,” the pallid sturgeon, was declared endangered.

Scientists blamed dams on the Upper Missouri, but lacked proof. Meanwhile, they’ve released thousands of hatchery-raised sturgeon to bolster population numbers. In recent years, a few wild fish have been discovered, but live offspring appear to be lacking (“Can pallid sturgeon hang on in the overworked Missouri River?” *HCN*, 9/24/12).

Followup

In January, a study from the U.S. Geological Survey and University of Montana researchers proved that the dams cause reduced oxygen levels, decreasing sturgeon embryos’ odds of survival. Another discovery was more encouraging: **Genetic testing just confirmed that two fish larvae, found last June in the Missouri near St. Louis, were wild pallids.** It was the first time the species has turned up in that stretch at such early stages of development — a sign that, despite the dams, some natural reproduction is occurring.

SARAH TORY



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Unbuilt Ascaya lots and cul-de-sac looking northwest, Sun City MacDonald Ranch, Henderson, Nevada; 2012. COURTESY RADIUS BOOKS

LAKE LAS VEGAS/BLACK MOUNTAIN Michael Light
136 pages, hardcover: \$60. Radius Books, 2014.

San Francisco photographer Michael Light focuses on the Western landscape and its transformation by modern American culture. The third book in a multi-volume series of aerial photographs, *Some Dry Space: An Inhabited West, Lake Las Vegas/Black Mountain* is a beautiful yet harrowing look at urban sprawl and whittled-down desert outside Las Vegas, Nevada.

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'Monaco' Lake Las Vegas home and foreclosed neighbor, on guard-gated Grand Corniche Drive, Henderson, Nevada; 2010. COURTESY RADIUS BOOKS

Light, who is also a pilot, took to the skies in 2010 to study two developments that were temporarily stalled by the real estate decline. Taken during early morning and late afternoon to capture maximum "three-dimensionality," Light's photos make space appear vast and surreal. Captivating and vulgar, elegant and raw, these images remind us what it means to live in a constantly changing West.

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Welcome, new interns!

Our latest interns, **Kate Schimel** and **Kindra McQuillan**, have arrived for six months of rigorous reporting, writing and perhaps even a bit of fun. And **Sarah Tory**, a stellar intern from last session, is now our editorial fellow for the next year.

When **Kindra McQuillan** was a child, her outer world was often in flux — her family moved nearly every year — but she always made a space of her own for reading and writing, from Farr West, Utah, to tiny Ruch, Oregon. Her extensive reading led her to suspect that most so-called "villains" were nothing more than the products of stories, that maybe, in real life, there were no bad guys.

This thought followed Kindra even after she left for college, at the University of Montana in Missoula, where she studied Spanish and anthropology. It lingered as she became a substitute teacher, worked in public health education and travelled for a year through Spain. She started writing again, and in 2012, an acquaintance suggested that she might find a place in journalism.

So she returned to the University of Montana, to the journalism school this time, where she reported on science and politics and investigated mercury contamination. She graduated in December, just in time to start an internship at *HCN*, where she says she'd like to tell the stories that only the West provides. But her thinking on one point has changed: "As a journalist," she says, "I've learned there are villains."

One fall night in 2010, 20-year-old **Kate Schimel** left her grandmother's New York City apartment for what she thought would be a casual gathering of young writers. But the posh Central Park suite was filled with suit-clad documentarians engaged in a moderated discussion on the state of journalism, and Kate, in her baggy jeans and fraying sleeves, shrank into a couch and retreated behind her drink.

This was nothing like Boulder, Colorado, where she was raised. There, she spent winters skiing and summers on Rocky Mountain whitewater. When not outdoors, she wrote and painted, and at one point studied art at Portland's Reed College. Reading C.L. Rawlins' *Sky's Witness: A Year in the Wind River Range* sparked an epiphany, the idea that she could marry creativity with wildness, as a writer.

That night in New York, the founder of *Chalkbeat*, a start-up education blog, struck up a conversation with her and eventually offered her a reporting internship. This started Kate's journalism career, eventually leading her back to the West to finish a degree in biology at Reed before continuing with *Chalkbeat* as a reporter on rural schools in Colorado.

Just as she was wrapping up that job, Kate was accepted as an intern at *High Country News*. She's glad to be back out West, she says, where snow falls on mountains, not penthouses.

—*Kate Schimel and Kindra McQuillan*



Kate Schimel, left, and Kindra McQuillan, new interns, on the main street of Paonia. BROOKE WARREN

Chainsaw Diplomacy

In southern Utah's Escalante watershed, a river restoration group tries to cut through old cultural barriers

A watershed is "that area of land, a bounded hydrologic system, within which all living things are inextricably linked by their common water course and where, as humans settled, simple logic demanded that they become part of a community."

—John Wesley Powell

The Escalante River is like a tree with its trunk in the Colorado River at Lake Powell and its branches reaching up to the top of the Aquarius Plateau. There's an elevation gain of 7,000 vertical feet, and it's all sandstone, a waterslide.

There are two small towns in the watershed, with a combined population of less than 1,200 people. The villages, Escalante and Boulder, are extremely remote by U.S. standards. This area was the last part of the Lower 48 to be mapped by the federal government, in 1875. Today, the closest well-stocked grocery store is more than 100 miles away over winding mountain roads.

The people who live in the two towns are mainly Mormon — members of the Church of Jesus Christ of Latter-day Saints — descendants of the original pioneers who first arrived in the early 1880s. But there are also newcomers, maybe 25 percent of the current population, who've moved here from "outside" because of the area's natural beauty.

The insiders and the outsiders sometimes do not get along, especially on issues concerning land use and resource management. The most dramatic rift opened up in 1996, when then-President Bill Clinton created the 1.9 million acre Grand Staircase-Escalante National Monument, covering a good part of the watershed. Outsiders welcomed it; insiders were, and many still are, furious. I have a theory about the conflict. I think it's because the two groups have entirely different cosmologies, or answers to the questions of where we come from, why we are here, and where we are going.

Mormons believe we are the offspring of a Heavenly Father who put us here, in this mortal existence on the planet Earth, in order to progress toward a higher, even god-like state of being. They believe they, the Saints of the Latter Days, are chosen by God to build His Kingdom on Earth and prepare for the return of His son, Jesus the Christ, and that God promised this land to them for just this purpose. The Mormons' belief system is based upon this faith. It's how they see themselves, as God's stewards of the land.

The cosmology of the outsiders, on the other hand, is not based in faith but in reason. They believe human beings evolved from ape-like ancestors, for example, and that humans are a part of nature, not separate from it. Their god *is* nature, and they use science to understand His work, or Her work, if they

believe in a god at all. They're environmentalists.

Both cultures are almost entirely white Americans. There are rich and poor on both sides. They speak the same language, but many of the words have different meanings. The word "cow," for instance, is a symbol of prosperity to the Mormons, but for environmentalists "cow" is a symbol of environmental destruction. And when it comes to talking about water and how to manage the watershed, the "simple logic" that Powell spoke of is something that's very difficult to achieve.

Sue Fearon works every day to try to bring people in Escalante and Boulder together around their common watershed issues. She grew up in Connecticut but has lived on Deer Creek, eight miles east of Boulder, for nearly 30 years — first in a small camper without plumbing or electricity, but now in a home carved out of the inside of an 80-foot-tall sandstone mound. She grows a lot of her own food, has a few beef and dairy cows, pigs, turkeys, some horses. She and her husband, Grant Johnson, want to be as self-sufficient as possible.

This morning, we are in Sue's pickup, driving from Boulder to Escalante across the Hogback, a narrow winding ridgeline that drops off on both sides for several hundred feet. Sue's rather petite and she's sitting up tall with both hands on the wheel, paying close attention to our course.

"I'm a farmer," she says, "so to me it's all about productivity." "What is?" I ask.

"The water," she says. "We can let it slide off the mountain and end up in Los Angeles. God knows they need it there. But I think we should use it here in ways that increase productivity, so we can be more self-sufficient as a community."

She's part of a group called the Escalante River Watershed Partnership, comprised of residents and representatives from government agencies and environmental groups who hope to figure out ways to restore the riparian areas in the Escalante watershed. Riparian areas slow down the water as it slides off the mountain. They have native plants and grasses, which helps the soil function as a sponge, absorbing and holding the water so that other plants and animals can use it. The partnership focuses on riparian zones because many of these areas in the Escalante watershed are in need of attention and effort.

It's complicated. Some riparian areas are on public property, some are on private property. On public property there are long lists of regulations and procedures, on private property the owner can do pretty much whatever he or she likes. Some riparian areas have been damaged by overgrazing, many have been invaded by Russian olives, and up high in the mountains the beaver have been largely wiped out. Beaver are very good at slowing water down, but some people don't like them because they clog irrigation pipes.

"I can't force anyone to do something they don't want to do, because none of this is going to work unless the landowners take a stake in it. If they don't want to go into it as partners, then it won't work."

—Sue Fearon,
Escalante River
Watershed Partnership

A Youth Corps volunteer stands near the river bottom of the Escalante River, where environmental groups and government agencies have been working to remove invasive Russian olive trees and restore the free-flowing river. CHRIS CRISMAN FOR THE NATURE CONSERVANCY

Summer in the Escalante Valley, where a traditional Mormon ranch culture includes the summer rodeo and parade. Far right, a sign of the newer valley residents: A cairn sits atop Sugarloaf Mountain in Boulder, Utah, surrounded by poems and other offerings and flying various flags — anything from the American flag that's there now to prayer flags to a gay pride flag to this Jolly Roger. ACE KVALE



Sue says the partnership, or ERWP (pronounced “er-whip”), has had some productive meetings and designed projects they’re carrying out, mainly controlling the invasive Russian olives, but there’s a big problem in that, for the most part, the insiders are not participating.

“They won’t come to our meetings,” she says. “When they hear about ERWP they think ‘environmentalists’ and ‘federal government,’ and they’re afraid we’re trying to take away their grazing rights. But we’re not. We’re not trying to get rid of cows. We’re just trying to restore the riparian areas, and we’re using science to guide our work. We’re trying to bring back the grass that cows can eat. But they don’t want to talk to us.”

One of Sue’s jobs with ERWP is to

eradicate Russian olives on private land. Russian olives were introduced into the Escalante watershed in the 1950s and have pretty much taken over in recent decades, clogging the shores along the streams in a way that turns the stream into something like a canal or pipeline, so that all the water runs away except for what the trees soak up. Sue has funding to pay crews to come in and get rid of them, at no cost to the landowner.

“I meet with the landowners and ask them what they want from their land,” she says. “I ask them what they see in their minds as a best-case scenario. ‘Do you want your stream beds choked with Russian olives so no cows or other animals can get down there? Do you want to not be able to ride a horse along the river?’ Some

people like Russian olives because wild turkeys live in them and they love wild turkeys. So I can’t help them, and that’s OK. I can’t force anyone to do something they don’t want to do, because none of this is going to work unless the landowners take a stake in it. If they don’t want to go into it as partners, then it won’t work.”

“And how’s it going?” I ask.

She says that while things improved over the last year, it hasn’t always gone well, at least with some of the locals.

“It’s hard to form partnerships here because I’m an outsider,” she says. “They don’t know who I am, and they’re not used to having someone knock on their door and say, ‘Let’s talk about those Russian olive trees down on your creek.’”

I tell her my theory of the two cul-



tures, the two cosmologies and how the two sides see everything differently and there's not much getting around it.

She's not impressed. She's not going to accept a theory that ends with no possibility of change.

"It's one river system that runs through this whole area," she says. "If we act collectively, we can end up with a productive and sustainable community. But if things stay the same, then everybody ends up working independently and the river is cut up in parts, where people act like what they do doesn't impact everybody else. But that's not possible, because we're all in the same watershed."

So I call Dell LeFevre, one of the few remaining local ranchers, bishop of the

Boulder LDS and ward, current county commissioner, a strong political force in the area. I've interviewed him before, but he doesn't remember me, says he gets interviewed too often.

He's on his cellphone, driving a semi with a load of hay from Panguitch back to his ranch in Boulder. He says he'll meet me at the Frosty Freeze in Escalante.

It's a calm autumn afternoon, the late sunlight on leaves just beginning to turn. We sit at a picnic table next to the sidewalk. Dell's 75 years old, currently in remission from stage-4 cancer, but still looks and talks a lot like actor Slim Pickens, who played Major "King" Kong, the bomber pilot, in *Dr. Strangelove*. He and his wife have adopted and raised 14 kids, all from developing countries. He

knows I'm the enemy, the liberal media, but he's the man, the go-to guy in this part of Garfield County, and he's going to tell it like it is.

"How can I help you?" he asks. "What is it you want to know?"

"So there's this new citizen's group, ERWP, that's trying to restore the watershed, but apparently the locals are not coming to their meetings. I'm wondering if it's true. When we met before, you said there was a war going on between 'the Hitlers and the Jews,' and you were the Jews and the government and the environmentalists were the Hitlers. Is the war still going on?"

"The truth is, we've lost," he says. "They're going to get us one way or another. They want to shut down the grazing on public land."

"But," I say, "ERWP's not trying to stop grazing. They're just trying to cut down Russian olives and bring back the grass."

Then, for some reason, LeFevre is telling me about his service during the Vietnam War, when he was stationed in the Aleutian Islands and spying on the Russians. Then he got injured and was sent to a hospital in San Francisco, where part of his recuperation involved "rolling hippies in the park." That was back when he liked to drink beer. He speaks of it fondly.

LeFevre's smart as a whip, funny and kind of charming. He tells me a story about a woman in his ward who came to him for church assistance, money to pay the bills, and he told her it would be no problem but he'd like her to sweep the church once a week, and she told him he wasn't a real bishop at all.

"I said, 'Ma'am, you know that and I know that, but apparently God does not.'"

"But what about the ERWP people?" I ask. "Why don't you go to their meetings?"

And he says, "They're the ones who shot our cows, cut our fences and burned our line cabins. You're talking to someone who's a bit bitter."

"When did that happen?"

"Back in the '90s," he says.

Actually, the cows, the fences and the line cabins belonged to Dell's father-in-law. The family later sold the grazing permit to the Grand Canyon Trust, an environmental organization interested in restoring the riparian areas along the Escalante River by removing the cattle. LeFevre, along with Garfield County and other ranchers, then sued the Trust, claiming it was illegal to buy a grazing permit and not use it for grazing. The Trust fended off this and other challenges by keeping a smaller number of cows on some of the grazing allotments it had purchased.

"My thing is," LeFevre says, "the group that's doing this, some of them are the ones that had the most say in getting us off the river."

I'm pretty sure this is just not true



ACE KVALE

"They're the ones who shot our cows, cut our fences and burned our line cabins. You're talking to someone who's a bit bitter."

—Dell LeFevre,
longtime Escalante
Valley rancher

"The ranchers and county governments are running the monument. The BLM is frightened and paralyzed."

—Mary O'Brien,
Grand Canyon Trust



A cowboy drives cattle along the Hole in the Rock Road on the Grand Staircase-Escalante National Monument, where grazing is permitted on 96 percent of the land. ACE KVALE

A monumental tug-of-war

Much of south-central Utah, from the Aquarius Plateau to the red-rock desert, has been grazed for more than a century by Mormon settlers and their descendants. But when President Clinton designated 1.9 million acres of the area's forests, canyons and mesas as Grand Staircase-Escalante National Monument in 1996, local ranchers feared that the Bureau of Land Management would start to cater just to recreationists and push their cattle out.

But that hasn't happened. Grazing

was grandfathered in, and more than 96 percent of the monument is still open to cattle, with 102 permittees on 82 allotments. The ranchers wield a lot of political power, which is one reason that the monument's top managers don't stick around long. (There have been six since 1996.) The BLM is only now devising its long-overdue grazing management plan. Even some monument staffers think that "the ranchers and county governments are running the monument," says Mary O'Brien of the nonprofit Grand Canyon Trust. "The BLM is frightened and paralyzed."

Environmental groups had hoped for large reductions in the number of cows roaming the monument's fragile desert soils and riparian areas, but have managed only a few small wins. In 1998, the Grand Canyon Trust began buying grazing permits from willing ranchers, eventually acquiring leases on about 344,000 acres of the monument. It relinquished some of the permits to the BLM, which closed some allotments to grazing, established some as grass banks, and reduced cattle numbers on others. Worth Brown, then-chairman of the Canyon County Ranchers Association, told a local newspaper in 2002, "The BLM is working with preservation groups to put us out of business."

However, a federal memorandum issued that same year has made it difficult for future buyouts, by forcing the BLM to first declare that lands within grazing districts are no longer "chiefly valuable for grazing" before allowing a permit to be retired.

And that's a declaration the BLM has been reluctant to make in the monument, even though studies in the early 2000s indicated that roughly 65 percent of its

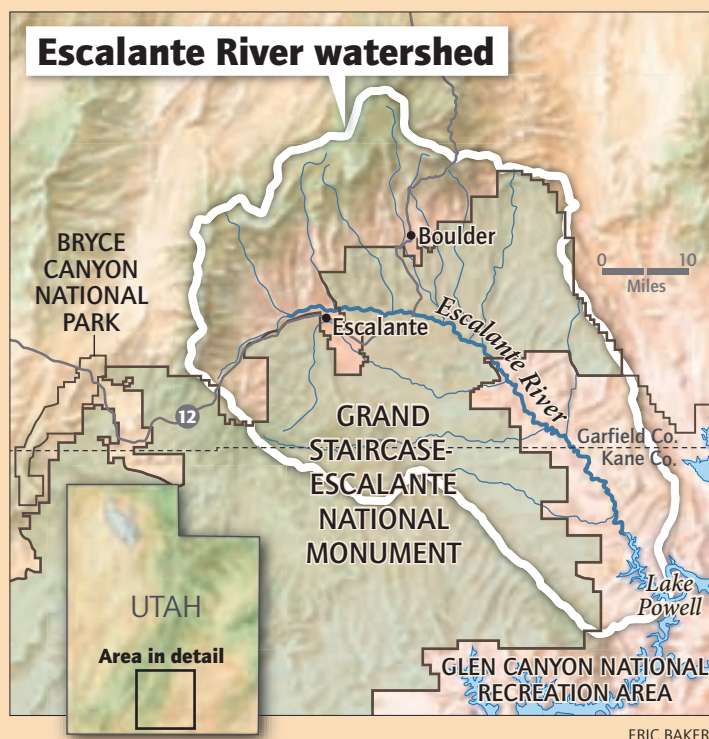
grazing allotments failed to meet "range-land health standards." Another assessment in 2008 — which conservationists denounced as a surrender to ranchers — found that about 20 percent of the allotments did not meet the standards.

Last month, the agency finally released a draft environmental impact statement for its grazing plan. The analysis includes five proposals for varying levels and amounts of grazing. The Grand Canyon Trust is trying to get the BLM to include a "Sustainable Grazing Alternative" among the options. That alternative would establish a process for allowing relinquished allotments to become permanently cow-free, allow public participation in decisions about grazing, and set a goal that livestock will not harm wildlife habitat.

Meanwhile, in mid-January, two Republican Utah senators, Orrin Hatch and Mike Lee, announced their Grand Staircase-Escalante National Monument Grazing Protection Act, which would "preserve the grazing rights that Utah families have used for generations," and prohibit the BLM from reducing grazing.

That protection might turn out to be a double-edged sword, though. "It's pretty ironic that, as climate change unfolds and these guys have no grass to graze," says Bill Hedden of the Grand Canyon Trust, which hasn't been able to buy out a Grand Staircase permit since 2002, "all we can say to desperate ranchers who approach us about a deal is, 'Good luck, guys, your political champions have protected you from the possibility of a voluntary buy-out.'"

—JODI PETERSON



ERIC BAKER

and he's saying it for effect, somewhat inflammatorily.

"Who do you think did it?" I ask.

"I think it was someone from the federal government," he says.

"Does it bother you they base everything in science?" I ask, trying to test my theory.

"I don't believe a lot of science," he says. "Like climate change. The earth may be getting warmer, but things change all the time. You have to go with it."

"And if it's getting warmer now it's because God wants it this way?"

"That's right," he says.

Over at the next picnic table splotches of sunlight through the trees are flickering on the faces of three blonde siblings, all under 5 years old, each holding ice cream cones like fish between their hands.

DENNIS BRAMBLE IS A BIOLOGIST, retired from the University of Utah. He used to study evolutionary morphology. Now he studies grass in the Upper Valley.

"I prefer to call it rangeland science," he says.

He lives in Escalante but owns 160 acres of what used to be rangeland for cattle in the Upper Valley. We're going there now in his pickup truck, 15 miles west of town.

"The riparian areas along the streams in this watershed used to be thick with grasses, more than 40 different species," he says. "But the land was severely overgrazed and the grass, in a lot of areas, is gone now. I've been experimenting on my land to see what it takes for the grass to come back."

Bramble has white hair and wears glasses that are a little crooked. He's a member of ERWP and he goes to the meetings. He's tall and thin and soft-spoken, quiet or listening most of the time. He hands me a book that's been riding on the seat between us. It's a master's thesis from 1954, hardbound in leather, a hand-typed carbon copy of the original: *The Impact of Man on the Vegetation and Soil of the Upper Valley Allotment, Garfield County, Utah*. It might be the only copy in existence; Bramble found it at the University of Utah library.

"I'll show you my land today, but I think you should read this book and then we'll come back and it will make a lot more sense."

The thesis is a scientific report written by an insider, Heber H. Hall from Boulder, Utah, now deceased. It presents a history of grazing on the very land that Bramble now owns and includes testimony from original pioneers who admit that they destroyed many of the grassland areas in the watershed by overgrazing.

According to the first-hand accounts, when the Mormon pioneers first came to the Escalante Valley in the early 1880s, the grass along the streams was so high that herds of sheep would disappear in it. The riparian areas were lush and diverse



Volunteers at the organic farm connected to the Hells Backbone Cafe, a favorite of travelers and newcomers to the valley. ACE KVALE



in species, like veins of living gold the pioneers mined with livestock. They brought in 60,000 sheep and 20,000 cows, and within two decades the grass was gone.

Grass helps the soil to function as a sponge in a variety of ways, especially by intercepting water that would otherwise run freely off the land and helping it to, instead, infiltrate the soil where it is then actually stored. If the grass dies, the sponge dries up. Then, if there's a flood, the water becomes a knife that cuts the sponge in half, leaving a gap, or arroyo, in between. Now the stream is suddenly five or 10 or 40 feet lower than it used to be. There's no more water on top, and the only plants that can grow in the arid soil are sagebrush and rabbitbush, neither of which are eaten by cows. This

is what happened to many streams in the Escalante watershed.

Hall writes:

"These pioneers, obsessed with mis-conceived ideas of unlimited abundance of forage for their livestock and water for their arable land, did not perceive that these lands and their products could be destroyed. Their main interest was to reap the harvest that Nature had planted for them without considering what effect the increasing number of sheep and cattle would eventually have upon this harvest. ... The initial floods, devastating and uncontrollable, descended upon their privately owned land, ripped open irrigation canals, destroyed dams, trenched and deposited debris on the cultivated fields, rendering them sterile. ... Such early de-



A creek, tributary to the Escalante, runs through private property that was cleared of Russian olives through one of the programs under the ERWP umbrella. ACE KVALE

struction to the land was believed, by these early settlers, to be acts of God, punishing them for moral sins committed."

By 1920, the number of cows and sheep in the watershed had dropped by half. By 1950, according to Hall, livestock productivity had dropped to 10 percent of what it was in the beginning, and nearly 20 percent of the people in Escalante were on government or church relief.

"Little comfort can be found in the fact that the same generation that brought such catastrophe to this once fertile valley lived to reap the poverty of their folly."

Hall's tone in his summation is a little caustic, and I wonder if maybe he had something of an ax to grind with his family and friends back in Boulder. Then I run into Dell LeFevre again and I show him the book and he explains what happened.

"Heber was my uncle, and I buried his brother today," he says as he paws the pages. "But he couldn't have written this because he couldn't spell any better than I do." He hands it back to me.

"In the acknowledgements," I say, "Hall thanks his wife for proofreading and typing the manuscript, so maybe she helped him with the spelling."

LeFevre tells me that Heber went away to the Second World War and never really came back. He wound up in Salt Lake City and went to the University of Utah to study science. He became an environmentalist.

"We lost him," LeFevre says.

I GO BACK TO THE UPPER VALLEY with Dennis Bramble and we sit in his truck on the 200-foot-long bridge over the arroyo that cuts through the bottom of the valley.

"According to Hall," Bramble says, "this valley used to be a flat, grassy meadow, and the bridge over the creek was only five feet wide. Now the stream is 30 feet below us. The water table has dropped to there and the banks of the stream are covered with sagebrush and rabbitbush. No grass, no willows or cottonwoods. This is the place Hall was describing in his book."

As an experiment, Bramble has built two exclosures on his land, just above the arroyo. An exclosure is a fenced-off area designed to keep cows out, not in. Deer and elk can easily get inside by jumping the fences, but Bramble says they rarely do. Small native grazers (rabbits and voles) have free access to the vegetation inside the exclosures.

We walk inside one of the exclosures and it's obvious that there's a lot more grass, and a lot more kinds of grasses, inside the fence.

"We only graze inside the fence in the fall," he says. "In September, maybe October. The idea was to see what will happen if we reduce grazing pressure and the season."

He's walking around, bending over, looking closely at the different kinds of grasses.

"Here's some thick spike wheat-grass. ... That one's blue gramma...some needle-and-thread here. That's Indian rice grass over there. These are native species, but they weren't here before we put up the fence and reduced the grazing pressure. They came back on their own. We've quadrupled the number of grass species without planting anything."

In between the patches of grass there are clumps of dead rabbitbush. The rabbitbush on the outside of the fence are do-

ing fine, very healthy. But the rabbitbush on the inside is dying.

"Are you killing the rabbitbush on purpose?" I ask.

"I'm not killing them," he says. "The voles are killing them."

"Voles?"

"They're relatives of lemmings, meadow mice. They eat the same things as cows and sheep. They like grassy, open, sunny places. They were living down by the creek where it's more moist, but when we changed the grazing to the fall, they moved up here. The problem with grazing in the early summer is the grasses don't get high enough or dense enough, the ground stays too hot and dry for voles. They're out-competed by cows. But if we keep the cows off until fall, the grass gets big and the ground stays moist and the voles come in, and then in the winter they eat the bark and roots of the rabbitbush, killing them, making more area for grass. I think voles are the major driver in restoring the meadows, and they do it by killing their competitors, the rabbitbush."

"Have you explained your results to the local ranchers?" I ask.

"I don't think they're going to listen to me," he says. "I'd be asking them to change their grazing practices, and there's just too much inertia in the present system. They seem fearful of change."

"Yes," I say, "that may be true, but mainly I think it's because you're a scientist, and you're not from around here." I'd been told as much by more than one insider — they admit scientists are smart, but they don't trust them.

Later, Bramble says that he disagrees with this characterization. Both Heber H. Hall and his mentor at the University of Utah, Walter P. Cottam, were members of the LDS Church, and both were conservationists.

"Cottam was a distinguished professor of botany," Brambles says, "the first person of prominence to openly call public attention to the severe problems created by the chronic overgrazing of Utah's public lands, and a co-founder of The Nature Conservancy. These individuals and others demonstrate that progressively oriented persons do occur in these communities, although they are uncommon. The factors that seem most influential in opening the minds of such individuals are exposure to the outside world and, especially, education."

He thinks my theory about the underlying problem of different cosmologies is both shallow and wrong, and worse still it tends to "further poison the well in ways that will make meaningful dialogue within the community even less likely.

"It's not the religion *per se*," he says, "but rather the long-term cultural, political and economic isolation of these communities that is most responsible for the standoffs between insiders and outsiders in places like Escalante."

LINK CHYNOWETH, bishop of Escalante's

Second Ward, is a third-generation farmer and rancher. We sit in his living room looking out the windows at the church property he manages, growing high-quality hay for horses. He's a calm man, thinks before he speaks.

"I feel they don't understand us," he says. "Like, I went to a Monument Advisory Committee meeting here in Escalante in the spring, and when they opened it up for public comment all the Great Old Broads for Wilderness spoke against cattle grazing on public land. When it was my turn, I said, 'You all speak like we're here to make a quick buck and rape the land, and I'm here to tell you that's not the way it is. Everybody agrees this area was overgrazed in the past. Where there were thousands of cows, now there are dozens. But I'm a conservationist, I'm not here to destroy the environment. My family's had the permit on Cottonwood Wash for three generations. We take care of it, and I want my grandkids to care of it, too.'"

I confess to him, the bishop, that I've been wondering if there's a way for the two sides to talk to each other, but I've failed to come up with anything.

"I don't think it can happen," he says. "So many people on my side, we don't want to sit down with them. We'd rather stay away from them. I don't think that's the right approach — we need to give input and there should be dialogue — but do I think there will be? No. There's

too much suspicion and distrust on both sides.

"My main focus," he says, "is to live a good life centered on my religious beliefs. For me, the way I see it, the earth and the environment are based in the biblical story of creation — God created the earth for man, and man is the steward over the land. But, for them, God *is* the earth, God *is* the environment."

"Yes, exactly," I say.

"So that means you can't do anything that threatens or damages the earth or the environment. What I don't understand is, just the fact that you live on the earth damages it. I mean, if you're going to take the cows off the monument then why not put up a sign that says 'No humans past this point'?"

"So you're not going to go to the ERWP meetings?" I ask.

"Well, they don't come to ours either," he says.

I go back to Sue Fearon and tell her what I've been hearing from the locals, not just Dell LeFevre and Link Chynoweth, but others who were even less diplomatic. I tell her it seems like there really is a cultural gap that has to do with different ways of answering the questions of who we are, where we came from, and where we're going. She says I don't know enough about the day-to-day interactions between people who live and work together down there. Fearon,

for example, is the clerk for the local soil conservation district, a decidedly "insider" organization. She hunts with insiders. She even shows up, uninvited, at what she calls "the Old Man's Club" — retired locals who meet for breakfast in a local restaurant.

"I used to see just the differences, but now I see a lot more common ground," she says. "The common parts are not rooted in religion, or the political stance of the politicians, or *us and them*. Those are the differences, the shit you have to scrape off to get the point: We're all in this watershed, it has meaning to us as individuals, and therein lies the common ground. The difference is not about truth, it's about perspective. I do this all the time with people in southern Utah — we agree to disagree and then move on and, generally, have productive and respectful relationships."

Sue's right. I don't live down here and perhaps it's wrong for me to impose my theory on a cultural environment in which I am really the "outsider." They're going to have to figure it out for themselves. The Escalante River Watershed Partnership is an attempt to work through the problems. They're trying to bring everybody together around the same table to find what John Wesley Powell called the "simple logic" of the community. I wish them the best of luck. □



Scott Carrier is a writer and documentarian based in Salt Lake City; his books include *Running After Antelope*, published in 2001, and his radio pieces have been aired on radio shows including *Hearing Voices*, *This American Life* and *All Things Considered*.

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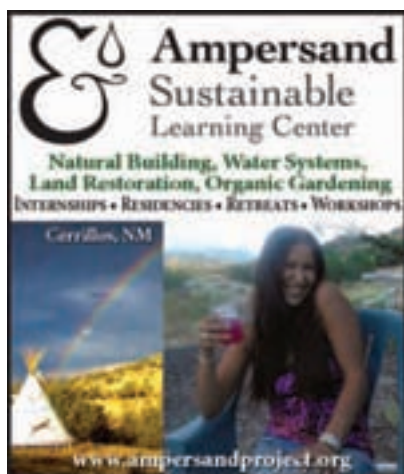
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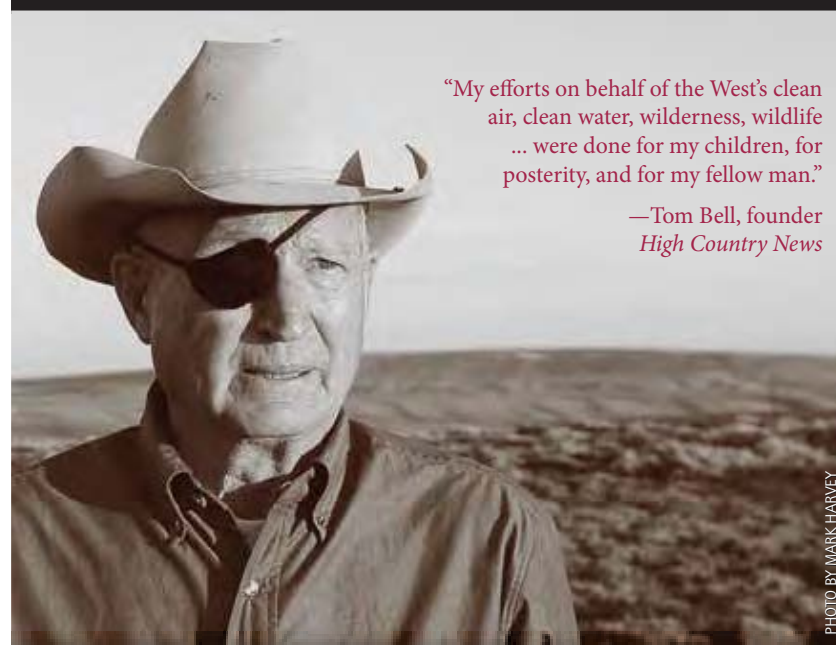
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Turtle Bay's McConnell Arboretum & Botanical Gardens

summiting to splashing in the water with the family. Redding's many kayak, stand up paddle board, bike, and boat rentals let you try

something new or leave your gear at home. As a basecamp for adventures around Shasta Lake, Lassen Volcanic National Park, and Whiskeytown National Recreation Area, Redding is a favorite for all types of explorers who appreciate the work it takes to keep nature wild and free. Pair your trip to Whiskeytown Falls with some help around the park—volunteers assist park rangers with special projects including historic orchard restoration, native plant gardening, research, and GPS projects.

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Pale hope in a dreary place

Set in modern times, in a small “passing-over place” in northern Utah, Idaho author Braden Hepner’s debut novel follows Jack Selvedge, a 20-year-old dairy farmer working his grandfather’s land, struggling against his own indifference. Young Rebekah Rainsford shakes things up when she returns to town, fleeing her abusive father. She becomes Selvedge’s obsession, a symbol of hope. “She had brought with her an essence. ... It was a sullen thing she carried, in some ways frightening and in some ways appealing and in all ways maddening. It was something he needed but could never get in the remote and meager collection of houses. ...” As their relationship forms, her dark history forces him to confront the chasm between his ideals and reality, while two

major betrayals threaten everything.

Hepner captures the nuances of the dramatic landscape of the Cache Valley, where cultivated fields give way to desert and mountains rise up against open skies. He employs a meditative language drawn from the land, delivering the richness of Selvedge’s inner life: “On the gentle hillside bones stood from the sand and yellow grass like ruins, the white architecture of death. How to describe what flowers grew from those bones in the springtime. Of deep purple and yellow, blue and red and white. Each one a marvel worth contemplation. How many times had he stopped to watch them tremble in the wind among the white bones.”

Pale Harvest is a dark novel by a deft storyteller, a modern retelling of the

legend of Adam and Eve. It explores tensions between good and evil, ignorance and knowledge, and hope and belief. The occasional appearance of phrases like “primitive and beautiful squaw” does nothing to further the characters; Hepner does a superb job of making them full and authentic, and doesn’t need to resort to language of exoticism and conquest. *Pale Harvest* walks the reader into the liminal spaces between life and death, and shows how a human being can be made anew. “Hope was his faith, his religion. It was the consequential vestige of maturity, of knowledge, a remnant product of adult sin. In the end they had nothing more than a hope commensurate with their fear, and in this way they were purified and set free.”

BY SAMANTHA UPDEGRAVE



Pale Harvest
Braden Hepner
366 pages,
softcover: \$16.95.
Torrey House Press,
2014.



Dumptruck, from the author’s photo research for Pale Harvest. BRADEN HEPNER

Shooting life’s rapids

In Pete Fromm’s new novel, *If Not For This*, the newlywed narrator, Maddy — a river guide in the Rocky Mountains — wonders how to avoid the “wicked-ass snags” that so often upset marriages. What’s going to keep the union between her and her husband, fellow-guide Dalt, from running aground on “those long, gray, dry gravel bars”?

Unfortunately, their marital raft capsize early on, when Maddy is diagnosed with multiple sclerosis soon after conceiving their first child. The unmistakable symptoms, increasing in frequency and severity, are rendered in spare but devastating prose. MS “turns the ground liquid, steals your memory, pulls words off your tongue before you can open your

mouth”; it ignominiously “swirls your balance into some kind of joke.” Maddy and Dalt’s fledgling outfitting business founders, and they are forced to give up their dream and move into town. Crippling disease — the curse of physical helplessness — seems to strike especially hard at those who wrest joy, meaning and livelihoods from their physical prowess, Fromm suggests. But buoyed by Maddy’s feistiness, the story never turns mawkish or melodramatic; throughout the decades of her decline she despises self-pity, finding strength in Dalt and their children.

In passing, Fromm — a Montanan and former river ranger — spotlights some of adventure tourism’s shadow aspects: long days, lack of health

insurance, liability suits and homeless river guides “priced out of the valley we worked so hard bringing people into.” Yet the work beats “swinging a hammer just to live for the days off,” and there are fringe benefits, such as “getting to stare at the Tetons all day, watch the sun gold them every morning, turn them stark and flat through the day, leaving nothing but purpled cutouts against the evening.”

Throughout, Fromm broaches what might be the whitewater professional’s chief existential dilemma, a thought that assails us all: “How could you ever make a move if you knew what was out there waiting for you?”

BY MICHAEL ENGELHARD



If Not For This
Pete Fromm
240 pages,
softcover: \$15.95.
Red Hen Press, 2014.

My kind of town: Livingston, Montana

When the preacher said doctrine wouldn't allow my sister to join the Girl Scouts, he learned something about my mother, who turned around, shut the door and just walked away. Every time I walk past that church, I remember why I so rarely tried to tell my mother what to do.

A busy supermarket stands just up the street. There used to be a root beer stand there, and the thought of it churns memories of my grandmother, generally a soft touch for a frosty mug.

Around the corner is the tiny house Mom rented when we first moved into town, after her divorce, right across the street from the school where they told her women teachers weren't worth as much as men. That policy turned her into a lifelong union member. Like I said, there wasn't much point in trying to tell her no.

On the other end of town, I often pass the house where I got my — astonishing — first real kiss. The taste of lips and the texture of tongue can sound pretty sour to the early adolescent mind, but Debby Sanders converted me.

When John Lennon died a few years later, I was sitting in a house on the corner of F and Geyser, watching TV with the sound off and the stereo turned up. It took a couple minutes for the reality to soak through the fog.

These are the kind of ghosts I find on my daily walks around Livingston, Montana, my hometown.

For a place with only about 7,000 people, Livingston is pretty well known. Celebrities hang around and the scenery astounds. Three mountain ranges bulk up here and millions of tourists pass through, usually on their way to Yellowstone Park, just up the road. The Yellowstone River shoulders by, mostly a delight and sometimes a menace but always a marvel, untamed in spite of us. We've got wildlife all over the place and we have our famous wind, with gusts that roll semi trailers and motor homes, and once even a train, out by the truck stop. Serious crime is rare, but we live in the world: In 2011, two sheriff's deputies killed a man who had shot and wounded a woman multiple times.

A Google dump could tell you most of this. But it can't tell you who we are. That's what the ghosts are for, if you

listen to them.

I've spent most of my life here, so I see these ghosts a lot. They don't pull at me, or make me particularly sad or happy. They just exist, like gravity, issuing reminders and providing weight.

It wasn't always like this. They used to scare the bejeebers out of me.

A generation ago, I returned to Livingston after a long stint of foreign adventures — the swarm of Asian cities, body-surfing in New Zealand, learning that a chicken's monetary value soars if you run it over with a motorcycle.

The concept of coming home started to percolate in Seoul, Korea, on a sunny afternoon when a little bird flitted over my head, and I hit the deck. There had been riots and I thought somebody was aiming a stone at me. Slogging through tear gas makes a vivid memory, but what really struck me, after I regained my feet, was the rarity of birds in that city.

It took a while to come home for good, partly because when I got here, the ghosts rattled me, made my feet itch to leave again. They were everywhere, peeking around corners, lifting a curtain

Back home, the
tables turned
and the stories
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I didn't know
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so.



to watch me pass, telling their stories. Mrs. Working was a crabby woman, impossible to satisfy, while her neighbor, Mr. Hokanson, could always spare a minute for a kid. A giant boy named Phillip sat next to me in second grade; he couldn't speak a word, but a shared crayon always made him smile. (He liked the red ones.) Leo Schaeffer had 11 kids of his own but loved engaging in apple fights with the neighborhood hooligans. Willie Moffett, handsome and impish, joined the Marine Corps, and I never saw him again. Perry Herbst disappeared, too. By the time Kenny Fleming died, he didn't add much weight at all to the first coffin I ever carried. I have no idea what happened to Debby Sanders, she of that first kiss.

I thought the best stories lay in unknown and exotic places, so that's where I sought them. Back home, the tables turned and the stories sought me, popping up everywhere. I didn't know that familiarity could frighten so.

It took a while, but I learned to appreciate the stories. They were part of me. Midge Taylor's good advice at her cluttered table still provides a flicker of warmth when I pass her house. Mickey Livermore's giant fist taught me to watch my mouth. The bowling alley where I played pinball is now a mental health center.

Don't get me wrong. I'm fully capable of ignoring these ghosts, especially if I'm in a hurry or preoccupied. Most people have similar memories, I suspect. But most people don't live in the town where they grew up, so their ghosts suffer the erosion of time and distance.

My ghosts don't seem to fade, especially since I've been walking more, trying to wrestle back the middle-aged flab. They've taught me to see their stories as a yardstick, a measurement of how things change.

On M Street, I remember how the kids ostracized Dolly McNeill, and I wonder if modern schools could have nipped

that in the bud. On Yellowstone Street, I recall the crush I had on Jill Glenn, the most beautiful girl I'd ever seen. Up by Winans School, I remember the satisfaction I felt when Benjie Schweniger knocked the snot out of the worst bully in junior high school. On Eighth Street, I remember the woman they called Dirty Mary, who raided garbage cans for food and suffered endless taunts. We didn't have a mental health center then, or a food bank either, though we probably needed both.

On some blocks, I can name somebody who lived in every house at some point in time. But I often can't name the people who live there now. I wonder: Do they know the stories of their homes?

A great scary, hairy man used to drink beer on his porch on the corner of Eighth and Clark streets, wearing a T-shirt and scowling at the summer hubbub. My friend Dave Eaton lives there now and laughs at that story. But what about the house on F Street where a man impregnated his wife's 12-year-old daughter, with his wife's full cooperation? Somebody else lives there now. The yard is neat, the dog is friendly, a tricycle is stowed on the porch and the walks are shoveled. I'm not about to go knock on that door and spill those particular beans.

But the ghosts know. They've watched things change. They've seen our cruelty and our kindness. They've watched us bicker and then come together when the river floods or a house burns or cancer strikes. They've watched schools close and new banks open. Livingston has more wealthy people now and fewer children, and I wonder if the ghosts realize there's something off-kilter there.

Most of the railroad jobs are gone, but there's a dozen art galleries. The neighborhood grocery stores closed up ages ago, but we have better food now. A bin of avocados or a jar of kimchi no longer puzzles people, and tuna doesn't have to come in a can. In many ways, I like my town better now. It's more open-minded and more generous, I think. We've certainly become more cosmopolitan, with creative people from all over the world passing through or planting roots, living out stories that will be somebody else's ghosts someday.

But I'm glad my own ghosts are still here, the old ones reminding me of people now gone, people who died or chased a dream or maybe just found a job somewhere else.

They're OK, these ghosts. I'm used to them now. They can walk with me any time.

Scott McMillion is the editor of Montana Quarterly, where a version of this essay originally appeared.

**Livingston, Montana
on the Fourth of July.**
JAKE LUTTINGER





HEARD AROUND THE WEST | BY JONATHAN THOMPSON

IN THE DEEP

Allisa and Mark Oliger, from Durango, Colorado, like to spend New Year's Day diving, often in the cold, murky waters of Lake Powell. Typically, they see a few fish, maybe find sunken treasures like golf balls or broken fishing poles. But this year, 30 feet underwater, they found a GoPro camera — the kind people attach to their bodies to record both the mundane and the insane. The camera, in a waterproof case, survived, as did its memory card, which held video clips and photos of young men on a road trip. Allisa scoured YouTube for similar videos and — surprisingly — found a match. Turns out the camera belonged to a guy named Dan Burkovskiy, who had made, and partially filmed, his cross-country moving trip from Massachusetts to California last June. During his group's stop at Lake Powell, their kayak flipped, sending the camera to a watery, albeit temporary, grave. Oliger found Burkovskiy on Facebook and returned his camera, attracting national media attention in the process. That's the good news. The bad news? When the camera was recovered, it was plastered with zebra mussels, a pesky invasive species.

BIRDLAND

Oh, if only Ron Jaecks had a GoPro that Tuesday morning in January. Jaecks was doing his usual run through Bush's Pasture Park in Salem, Oregon, when someone — or something — suddenly ripped the hat from his head, puncturing his scalp, according to the *Statesman Journal*. "It was like a huge electric shock ran through my body, but also like I got hit in the head with a two-by-four all at the same time," Jaecks told the *Journal*. "Or maybe a strike of lightning." Having no clue what was happening, Jaecks screamed and ran in circles. His now hatless pate was hit again, and this time he realized that it was a winged creature — a gigantic bat, he feared. But the friend he called, biology professor David Craig, theorized that it was an owl, which attack more often than you might think.



UTAH Checkmate. PATTY WHITLEY

In 2012, parts of some Washington state parks were closed after at least six such attacks, and in recent months, owls have dug their talons into folks in Florida and Missouri. They seem to be attracted to, or irritated by, long hair and ponytails. Memo to dawn and dusk park-goers: Wear a helmet.

CRAZYTOWN

Recent research suggests that living at high altitude can affect brain chemistry in such a way as to induce either euphoria or depression. Lack of oxygen to the brain, or hypoxia, might explain both your "Rocky Mountain High" and the Interior West's high rate of suicide.

Witness Silverton, Colorado, population 500 or so, elevation 9,318 feet. During the long winters, when the influx of tourists slows to a trickle, snow piles up in the streets and avalanche danger sometimes closes both routes out of town, tensions run high. Residents pack town, county and school board meetings, and engage in late-night, spittle-heavy debates, arguing endlessly over whether the county or town should pay for the ambulance or ATVs should be allowed on town streets. The latest fracas, simmering for months and now at a rolling boil,

might be the most heated in recent memory, seemingly drawing in every resident and then some. It's also one of the oddest. Tired of the long-running feud between the town administrator and the longtime public works director — who wields great power, since he's in charge of the snowplows — the town board forced the two to publicly pledge to be nice to one another. The public works director then broke the promise at a local watering hole, allegedly warning folks that "you're either with us, or against us." The town board launched an investigation, and both employees were ultimately fired.

That's when the hypoxia really kicked in: The public works director's supporters launched a campaign of nastiness, boycotting busi-

nesses owned by those who favored the firing, pelting *The Silverton Standard & the Miner* with vitriolic letters and trying to recall one town board member. In January, after the polarized town board failed to agree on a replacement for another member — who had left town for lower elevations and higher sanity — two infuriated residents started screaming at officials. Local law enforcement had to extricate them, and town hall was closed to the public so that those employees who hadn't quit, been fired or gone crazy could get some work done.

"It's easy to look at what's been going on in Silverton and see it as an implosion," San Juan County Sheriff Bruce Conrad told the *Durango Herald*. "But divisions like this are cyclic. We go through it, time to time, and we'll be out of it shortly." Some hope that the Feb. 10 recall election will end the fight. The less optimistic suspect it'll simply jumpstart the next wacky cycle. Stay tuned.

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

Tips and photos of Western oddities are appreciated and often shared in this column. Write betsym@hcn.org.



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“Lack of zoning is everyone’s problem. Why not discuss what we might tolerate before a neighbor opens up a confined animal operation of 1,000 chickens or imports 60 rusty automobiles or 180 pigs?”

Linda M. Hasselstrom, in her essay, “Let’s talk about the ‘Z’ word,” from *Writers on the Range*, www.hcn.org/wotr