

Science

FINDINGS

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"Science affects the way we think together."

Lewis Thomas

From Top-Down to Grassroots: Chronicling the Search for Common Ground in Conservation in the West



Susan Charnley

A roadside sign in Grant County, Oregon, sums up how sustainable working landscapes are critical to conserving both biodiversity and the cultures of rural ranching and forestry that depend on them.

*"The Universe is made of stories,
not of atoms."*

— Muriel Rukeyser, poet

The enduring stereotype of the American West today is a place of unfettered, mostly wide-open public spaces. However, the reality is that the West is a hodgepodge of public, private and tribal ownerships. This intermix of jurisdictions makes it difficult to work through conflicts, let alone take any sort of landscape-scale approach to conservation and resource

management. But it's not impossible, at least according to Susan Charnley, an environmental anthropologist with the U.S. Forest Service Pacific Northwest Research Station.

Charnley is co-editor—along with Tom Sheridan and Gary Nabhan, both at the University of Arizona in Tucson—of the well-received 2014 book, *Stitching the West Back Together*. The book, written by ranchers, foresters, community group leaders, and academics, tells stories of recent efforts to find common ground around conserving working landscapes, part of a "second revolution" in conservation.

IN SUMMARY

Sustainable working landscapes are critical to the conservation of biodiversity in the American West and its cultures of rural ranching and forestry. Given the West's patchwork of public, private, and tribal lands, perhaps the best way to conserve biodiversity and ecosystem function on a large scale is through a process of collaborative conservation. These are the two central arguments of the 2014 book *Stitching the West Back Together*, co-edited by Susan Charnley, an environmental anthropologist with the U.S. Forest Service Pacific Northwest Research Station.

The book is written by ranchers, foresters, and community group leaders, along with agency and university researchers. It tells of the long struggle and more recent success in finding common ground around conservation issues in the West. Central to the book are stories of conservation entrepreneurs who, according to the introduction, are "pushing the boundaries of regulatory and policy frameworks and social norms that often operate as constraints to innovation."

There are no easy answers, and Charnley and her co-editors eschew prescriptive solutions in favor of examples reflecting the trial-and-error realities of collaborative conservation—examples they hope will provide inspiration to others working to conserve their own corner of the West.

Working landscapes are places where people make their living by using renewable natural resources and transforming them into products such as wool, meat, and lumber. Two important themes underpin this effort. The first theme is that sustainable working landscapes are critical to conserving both biodiversity and the cultures of rural ranching and forestry that depend on these lands. The second is that collaborative conservation is the best way to protect biodiversity and ecosystem function on a large landscape scale.

The picture that emerges is a welcome antidote to another stereotype—that land use and management in the West always involves insurmountable conflict. Years spent talking and building trust are paying off in collaborations across fence lines to get things done on the ground. “And on the ground is, after all, where conservation truly matters,” Charnley and her co-editors write in the book’s introduction.

The book starts by highlighting the central importance of working landscapes, which include both public and private lands that support natural-resource-based livelihoods, still critical to the economy of the West and indeed the nation. Western forests supply about half the nation’s softwood lumber even though the timber harvest has been halved since 1990. And while permitted livestock use on federal



KEY FINDINGS



- Public, private, and tribal lands are ecologically and economically interdependent: species move across ownerships; ranchers depend on private and public rangelands; and mills rely on wood products from public, private, and tribal forest lands. Investments, policies, and tools are needed to ensure working landscape conservation across ownerships.
- Conservation happens through trial and error; there is no cookie-cutter approach. Successful working landscape conservation efforts include individuals who have long-term vision and a commitment to process and place; and who innovate, experiment, and are persistent despite setbacks.
- Working landscape conservation must work financially. Common strategies for obtaining needed resources include combining multiple funding sources from different partners, generating diverse products and services, using multiple conservation tools and strategies, and building strategic alliances from the local to the national level.
- Long-term, dynamic public-private partnerships are key to achieving meaningful and lasting conservation outcomes. This calls for a culture of collaboration around public lands management.

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Location of case studies and stories featured in Stitching the West Back Together. "There is no cookie-cutter approach," says Susan Charnley. "Rather than saying, 'Here's the formula,' it was better to just say, 'Here are the stories.'"

lands is also decreasing, western rangelands continue to support about one-fifth of the cattle and half the sheep in the United States.

For various reasons—from shifting public values and environmental lawsuits to exurban sprawl around big population centers—in recent decades, it has become increasingly difficult for

rural ranchers and small timber producers to make a living. Despite the rise of biodiversity conservation and ecological restoration activities on federal lands, development trends on private lands work against these goals, particularly given a tumultuous history that has produced mixed or even distinctive checkerboard

ownership patterns across watersheds. The authors note how working to stitch the West back together is the primary means of “maintaining and restoring the integrity of working forests and rangelands, as well as the biodiversity and rural communities they support.”

COLLABORATION AS A WAY OF DOING BUSINESS

Charnley’s tenure with the Forest Service began in 1999 when she was hired to help build a social science program to study the human dimensions of ecosystem management in the National Forest System. The agency was shifting its focus from timber production to ecosystem management, forest health, restoration, and conservation of biodiversity. The agency’s approach to management was changing, too, embracing collaboration with stakeholder groups as a way of doing business—an approach that’s only accelerated. The agency has increasingly recognized that social values are at the heart of resource management decisionmaking, which is good news for Charnley.

“Now people want to include a social scientist on their research teams,” she says. “The social part of the issue is often more challenging than the ecological part.”

The challenge stems partly from the fact that many of the current problems plaguing the West, from a disrupted fire regime to encroaching invasive species, cut willy nilly across public and private boundaries. This is why collaboration is increasingly important—and why within the agency there are more discussions about working “across the green line,” referring to the imperative to go beyond the edges of Forest Service lands and take an “all-lands approach.”

In their book, Charnley and her co-editors outline the demographic trends that make such collaboration essential. Between 1990 and 2010, the population of western states grew from 51.1 million to 69.9 million, an increase of 37 percent. (Nationally, the population increased 24 percent.) Population growth is one explanation for the steady conversion of



Susan Charnley

A group of managers, scientists, collaborative group members and local stakeholders on a field trip to the Umatilla National Forest in Oregon's Blue Mountains discuss restoration of moist mixed-conifer forests.

private forests and rangelands to various forms of development, including low-density rural homes.

Development brings a host of risks to these landscapes, such as habitat fragmentation and loss, threats to biodiversity, changes to ecosystem processes, and higher likelihood of invasion by exotic species. The bad news, which is mostly dispensed early in the book, is that even the most sustainable, science-informed management of western lands in federal ownership won’t be enough when it

comes to achieving many conservation goals; private and tribal land management is also key.

But there’s lots of good news, too, as told through many of the case studies in later chapters. These stories are the main reason the book has earned positive reviews in the academic literature and elsewhere. “This book should be a great resource to inspire and equip the next generation of conservation leaders,” wrote Matthew McKinney, director of the center for Natural Resources & Environmental Policy at the University of Montana, in a November 2015 review in the journal *Ecology*.

STEWARDSHIP CONTRACTING

Federal lands form an important component of the West’s working forests and rangelands, where wood products are grown and livestock are grazed. Stewardship contracting is one innovative tool for fostering conservation of working forests on and around federal lands.

Stewardship contracting allows the Forest Service and the Bureau of Land Management

(BLM) to engage communities in restoration and fuels reduction projects through collaboration and local job creation. An essential feature of such contracts is the “retention of receipts” provision, which allows funds from timber sales to be retained by the local unit for other appropriate restoration work in the same location. The funds can also pay for restoration on private lands (using a separate authority) that has tangible benefits to public lands.

Johnny Sundstrom, founder and director of the nonprofit Siuslaw Institute in Deadwood, Oregon, co-wrote a chapter in the book with his son Shiloh detailing the success of stewardship contracting on the 630,000-acre Siuslaw National Forest in the Oregon Coast Range. From 1960 to 1990, the Forest Service produced more than 2 billion board feet of timber from the local Mapleton Ranger District. That’s enough to build a 1-ft-wide

boardwalk to the moon, Sundstrom points out. Harvesting slowed dramatically in the 1980s and 1990s because of litigation and the listing of several bird and salmon species under the Endangered Species Act. While many of his neighbors moved away, Sundstrom stayed, getting by with an assortment of jobs from managing restoration projects to coaching track to writing novels. He also stayed involved in a host of collaborative conservation efforts.

One such effort was to protect and restore the Siuslaw basin, supported in part by retained receipts from stewardship contracting. Some of the restoration work involved hiring a local contractor to drag logs and large branches into local streams to help create deep pools where young salmon can shelter in the summer and returning adults can rest on their way to their spawning grounds. Ironically, the same contractor had been hired years earlier during the era of clearcutting forests to remove debris from streams to make it easier to float logs to sawmills. The contractor, initially cynical about restoration, wound up bragging at the local bar about an award the project received. The point, Sundstrom says, is that cultural change can happen and the public can embrace restoration, which does create some niche jobs, albeit not nearly as many as existed during the heyday of the timber industry.



Susan Charnley

A thinning project under a stewardship contract in the Eldorado National Forest in California. Sales of these merchantable logs will be used to pay for other fuel reduction and restoration treatments.

Today Sundstrom evinces obvious pride when he says “we’re the timber-growing, money-making, litigation-free national forest.” He describes his main responsibility of the past quarter-century as the one that doesn’t appear in his official bio—the many long hours spent

acting as a translator and go-between for the agency and the local community. “Over time we’ve evolved a mentality here in this community that kind of transcends political conflict,” says Sundstrom, echoing a theme that appears throughout the book.

REINTRODUCING FIRE IN THE SOUTHWEST

Given recent media accounts, one might think that it’s increasingly unpleasant if not downright dangerous to be a federal employee working on any sort of land use issue in the West. But Charnley, who for more than a decade has traveled throughout the region going to community meetings and interviewing individual timberland owners and ranchers, says that such conflicts are far and away the exception rather than the norm.

“People may be critical of federal land management agencies, but they’re also understanding of the constraints managers face,” says Charnley, who is starting a research project on public-lands grazing in the Blue Mountains in northeastern Oregon. “I’ve certainly never run into anybody advocating tearing up grazing leases, completely disregarding all regulations.”

Public-land grazing is a topic dear to her co-editor, Tom Sheridan, a professor of anthropology at the University of Arizona. In the early 1980s, after doing dissertation research in Sonora, Mexico, Sheridan and his wife moved to the rural Altar Valley about 25 miles southwest of Tucson. Most of his neighbors were involved in ranching and were often at

odds with environmentalists during the 1980s and early 1990s.

Sheridan was eventually sucked in, joining the Altar Valley Conservation Alliance, a collaborative conservation organization made up mostly of ranchers and farmers committed to

conserving healthy working landscapes in the area. It’s a big task, both because of the size of the valley—600,000 acres—and the history of nasty battles in the courts.

More recently, the Altar Valley Conservation Alliance has been fostering change outside the



Altar Valley Conservation Alliance

Sierra Vista Ranch, a vineyard agricultural operation in Altar Valley, Arizona, worked with the neighboring Buenos Aires National Wildlife Refuge and the U.S. Fish and Wildlife Service Partners Program to enhance rangeland health via prescribed fire, like this 2012 burn.

courtroom. The partnership has rallied around the issue of fire, the long suppression of which has led to an invasion of woody shrubs that crowd out native grasses on public and private lands. Urbanization and sprawl may get most of the blame for rangeland degradation, but focusing on these trends leaves out an important part of the story, a gap perhaps best filled by ecologist Robert Humphrey, who Sheridan quotes in chapter 4: “Had fires continued to sweep the grasslands down through the years to the present with their original frequency, the desert grassland would probably occupy about the same area today as it did prior to the white settlement of the Southwest.”

After years of discussion with its partners, including the Forest Service, the Alliance was able to wrangle agreement for a master plan to reintroduce fire to the entire 45-mile long valley. This is a huge accomplishment given the long list of stakeholders, partners, and landowners, including several other state and federal agencies.

WRITING A NEW STORY

Although it’s still evolving, perhaps one of the best stories of the sort of broad, landscape-spanning collaborations described by the book is that of the greater sage grouse. Last fall the U.S. Fish and Wildlife Service announced that the bird, known for its flamboyant mating strut that’s made it a modest YouTube celebrity, would not be added to the endangered species list. In lieu of regulation, federal and state officials, energy companies, and ranchers worked on a plan to protect the bird’s habitat. The plan includes everything from mapping nesting sites and migration corridors to use of directional drilling by oil and gas companies to avoid sensitive areas.

“The Sage Grouse Initiative may be the single biggest, most ambitious example of the sort of collaborative conservation we write about,” Sheridan says of the plan that stretches across millions of acres of private, state, and federal land in 11 western states.

FOR FURTHER READING

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LAND MANAGEMENT IMPLICATIONS



- Collaborative conservation is often driven by individuals, many of whom are rural producers whose livelihoods depend in part on access to federal and state lands. Agency personnel can support such individuals by encouraging flexibility and experimentation, rather than acting as bureaucratic gatekeepers.
- Policies, programs, funding sources, and outreach efforts that encourage “all-lands” approaches to forest and range management at the landscape scale across ownerships are needed to ensure working landscape conservation on private, tribal, and public-lands.
- Agencies and nongovernmental organizations committed to collaboration can be better partners by offering incentives that encourage employees to remain in place, or mentoring programs that pair employees who are leaving with their replacements to ease transitions and provide consistency to collaborative conservation efforts.

“They all realized it’s to everyone’s benefit if you have a healthy, unfragmented ecosystem,” says Sheridan. “It benefits wildlife, and

it benefits the agencies that are charged with managing these different jurisdictions.”

Charnley and Sheridan are hopeful that many more examples will emerge in the years ahead. Their optimism, and indeed the template of their book, brings to mind Danish philosopher Søren Kierkegaard, who once observed that “life can only be understood backwards; but it must be lived forwards.” Kierkegaard was born in 1813 in a country about the size of two large Oregon counties. That was just a decade after the Louisiana Purchase, the moment in history that kicks off Charnley’s book.

Faint tremors from that transaction, one of the largest land deals in history, can still be felt. The westward migration that it triggered in earnest continues, along with ongoing tension about whether land should be conserved or used for economic activities. Charnley’s book and her ongoing work suggest that it may have been wrong to ever frame this as an either-or choice.

“You have to develop locally specific approaches to working landscape conservation that are appropriate to the social and ecological context,” says Charnley, adding that this fact explains the way the book is put together. “There is no cookie-cutter approach. Rather than saying, ‘Here’s the formula,’ it was better to just say, ‘Here are the stories.’”

The authors hope that these stories will inspire others to work toward stitching back together their own corners of the West to promote the ecological and economic health of working landscapes.

“Whenever you’re in conflict with someone, there is one factor that can make the difference between damaging your relationship and deepening it. That factor is attitude.”

—William James, philosopher

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Editor’s note: Charnley has a limited supply of the book, which she will mail free of charge to any interested readers. Send your name and mailing information to scharnley@fs.fed.us.

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Geoff Koch is a dad, science writer, and poet in Portland, Oregon, where he is usually frustrated in some capacity by all three roles.



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