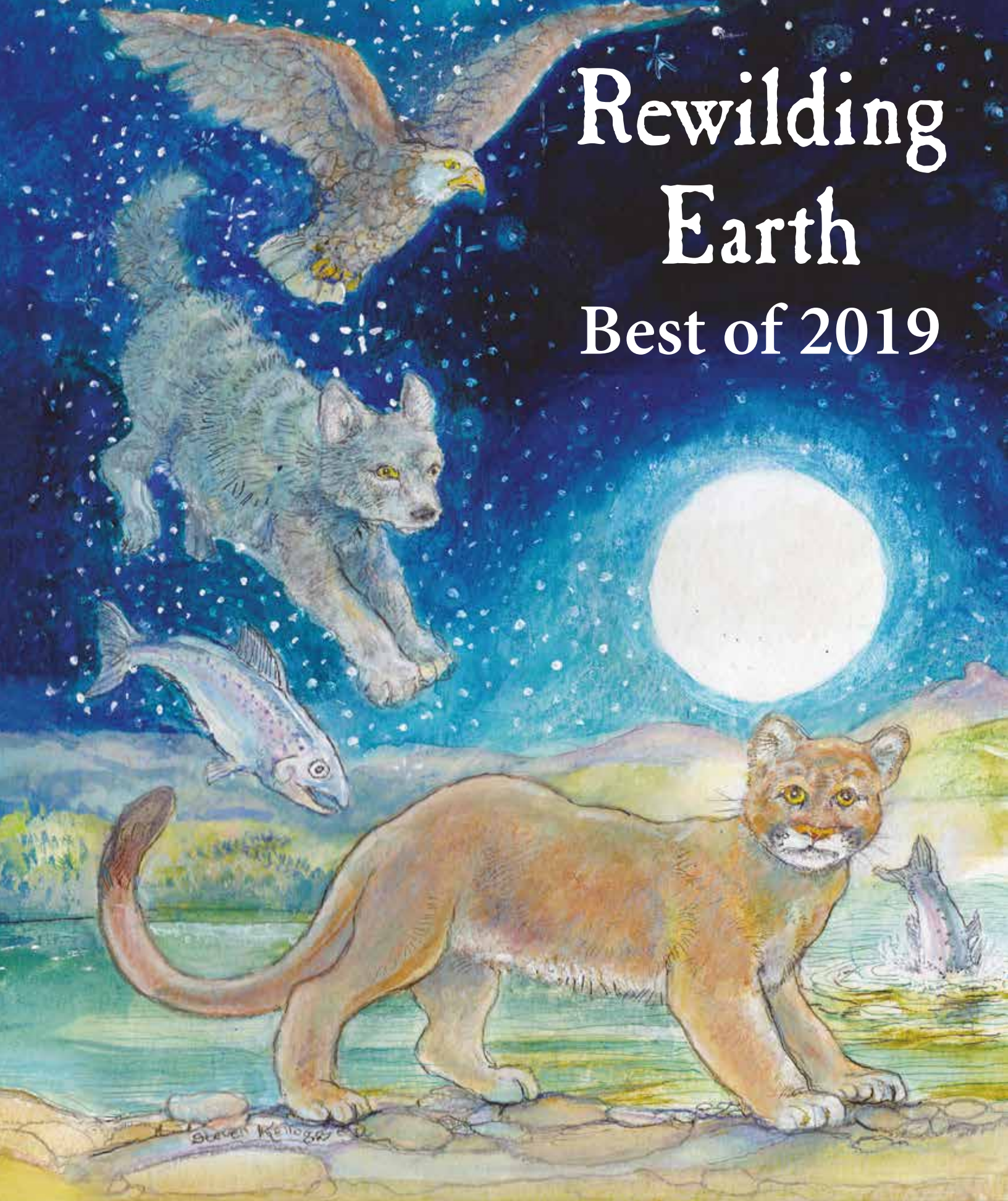


Rewilding Earth Best of 2019



Edited by John Davis & Susan Morgan

Rewilding Earth

Best of 2019

*Edited by
John Davis & Susan Morgan*



Essex Editions

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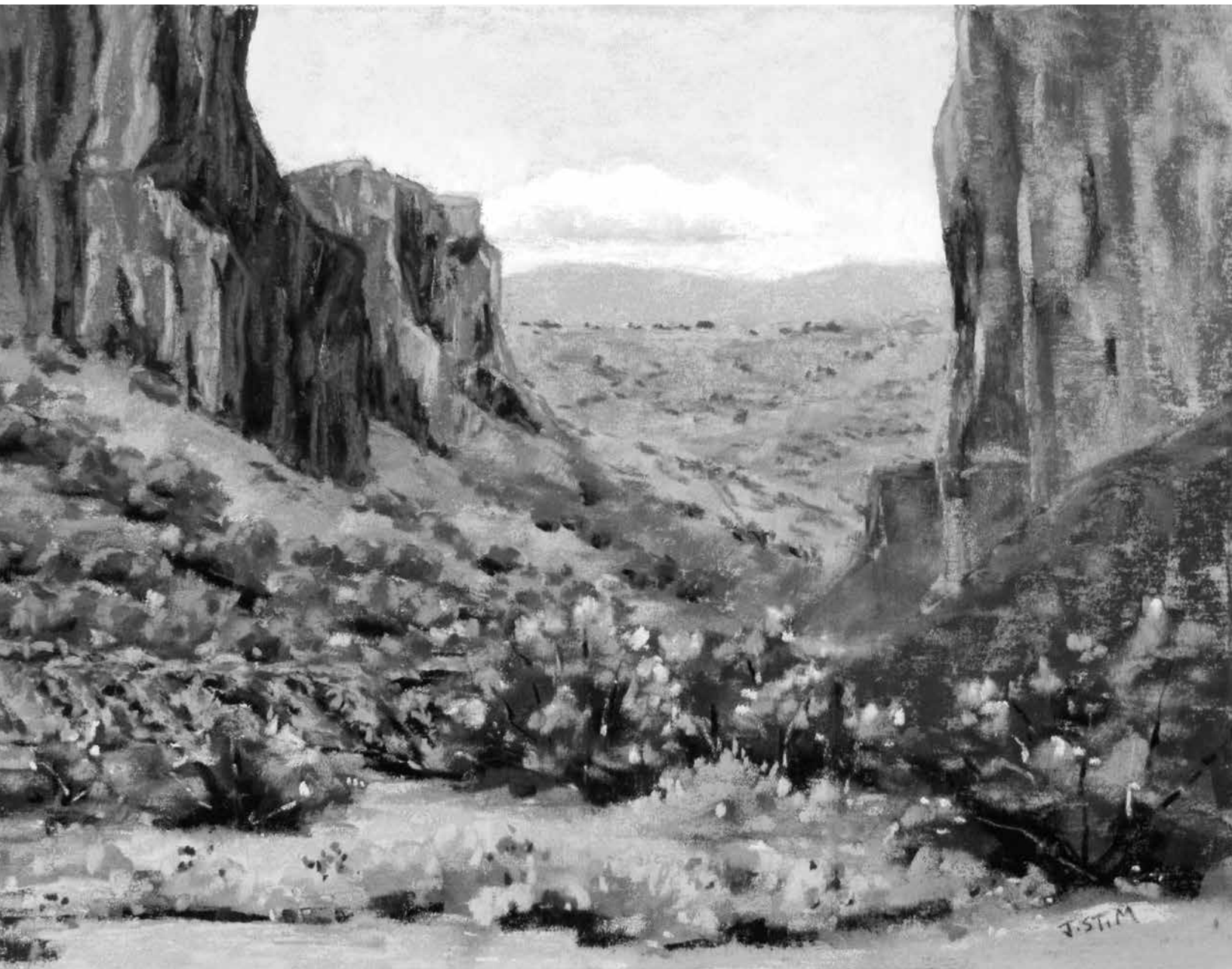
Dedication

We dedicate this book to our friends and close colleagues Dave Foreman and Nancy Morton. If the concept of rewilding has parents, they are Dave and Nancy.

Dave Foreman is rightly and widely celebrated for his half-century of leadership on wilderness and wildlife issues (please see the bio we wrote for him in Appendix). Nancy (arguably, the real head of their household—with the only ones who'd challenge that claim being their two cats!) gets less recognition but has been a powerful conservation leader for nearly as long, most recently as president of the New Mexico Wilderness Alliance.

Whole books will be written about the lasting influence of and wild places saved by this daring duo of wilderness champions. For now, just let it be known, these pages honor all who speak out for wild places and creatures, but especially Nancy Morton and her husband Dave Foreman, spiritual leaders of our little band of rewilding advocates. May this work help realize their vision of vast wildways stretching across North America and beyond, teeming with life, including those ultimate wildeors, Pumas and Wolves.

—*Rewilding Earth* editors, spring 2020



INTRODUCTION

Diablo Canyon © Janice St. Marie

By John Miles and Susan Morgan of The Rewilding Institute

Despite these anxious times about the fate of the wild and all life on Earth, we believe despair is not an option. It's true, there are too many humans who want too much stuff, cause too much destruction, and believe with too little humility

that economic growth and technology will solve all their problems, and they do pose serious existential threats. Now that we are facing a world-wide pandemic with no rational national leadership, we must be even more alert to short- and long-range effects to our natural world. Public lands

continue to be targeted while much of the public is isolated and distracted. We will have to change our strategy and tactics to address this toxic combination of threats, and in this collection from *Rewilding Earth* (rewilding.org) you will read about projects to defend wild nature that offer cause for hope and inspiration.

Here we present some of the finest articles we collected during 2019 that feature good thinking and diligent work being done to restore and rewild parts of the natural world.

The Rewilding Institute promotes the idea of rewilding as “giving the land back to wildlife and wildlife back to the land,” and is dedicated to defining what rewilding should be at various scales and in many contexts.

Rewilding Earth: Best of 2019 presents promising work in North America and Europe; accounts of courageous

actions by adven-

turers and wilderness

advocates in Alaska;

persistent advocacy

around the country,

such as Wyoming’s

Upper Green River

and New Mexico’s

Rio Mora National

Wildlife Refuge;

encouraging legislation

for New Mexico’s wildlife

corridors; and scouting

locations for wildlife

crossings in the Adirondacks. We

are featuring an update on Adirondack

Wildways, two thoughtful overpopulation

articles, a book review about *Citizen Science*, a profile of

the impressive *Northern Forest Atlas Project*, and stimu-

lating overviews of rewilding projects in Germany and

Scotland. We are calling attention to challenges such as

the threats of deep-sea mining, the devastating fires in

Brazil, the cow-bombing of aspen clones, and the need

for state wildlife funding reform. We are heralding the

successes of Eagle Mountain in New York’s Adirondack

Park and Box Creek Wilderness in the Southern Appala-

chians. We present wild ideas of wildness in the Anthro-

pocene, an overview of how conservation has evolved to

rewilding, and two brief eloquent pleas for wild things

from our founder Dave Foreman—all complimented by

beautiful poetry and art.

“Cumulative effects” is a phrase often used to

describe how small insults to nature add up to big

impacts. A positive cumulative effect envisioned by The

Rewilding Institute is the recovery produced by hundreds

and thousands of rewilding projects adding incremen-

tally to major gains for the natural world in general and

its wild denizens in particular. The goal of *Rewilding*

Earth and this anthology is to highlight the good

work being done and to inspire a growing

movement to launch rewilding projects all

across North America and around the world,

offering examples and ideas from which to

draw inspiration.

Eminent scientist

E.O. Wilson argues that

“only by committing

half of the planet’s

surface to nature can

we hope to save the

immensity of life

forms that compose

it.” He adds that “it is

past time to broaden the

discussion of the human

future and connect it to the

rest of life.” His prescription

seems large and daunting,

but people climb Mount

Everest one step at a time.

The action Wilson calls for

can be similarly achieved,

Petroglyph © Karen Boeger

one project at a time, and herein are presented some steps

toward that goal. Wilson also alludes to a core truth in his

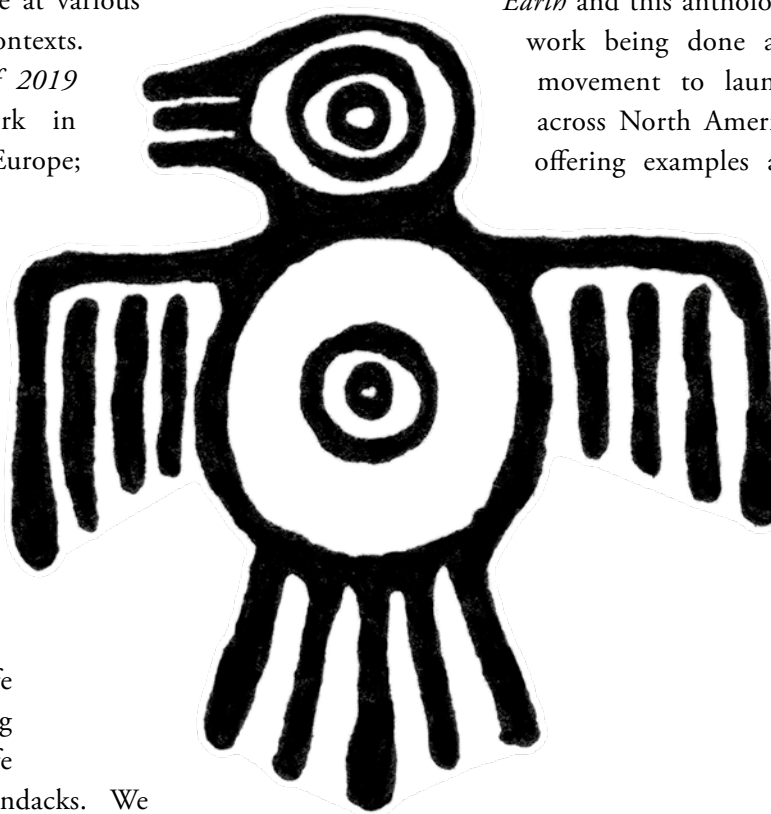
call to connect the human future to the rest of life—the

flourishing of human life depends on the flourishing of the

rest of life. *Rewilding Earth 2019* offers examples of how to

reject denial of this truth and build a future in which all life

can flourish.



A TALE OF THREE WEASELS

By Paula Mackay



Marten © David Moskowitz, Cascades Wolverine Project. Martens once roamed the Olympic Peninsula. Today, researchers are trying to determine whether a viable population still exists there.

Wildlife sightings in the North Cascades are a gift from nature. You can roam the backcountry for a week and return home with little to report beyond gray jays and ground squirrels, or maybe a mule deer and her fawn grazing a mountain meadow. There are countless other rewards, of course—the craggy summits, the solitude, the tranquility of the trail—but when it comes to actually seeing a storied carnivore, you’re better off visiting Yellowstone.

So I was as surprised as anyone when the stars aligned one July afternoon in 2014 while I was taking a lunch break with my two companions—my husband and field partner, Robert, and a friend—next to a sublime alpine lake near North Cascades National Park. We had been out there alone for days deploying wildlife cameras; there was still too much snow in the shadows for most summer-loving campers.

As I contemplated the snowfield across the lake, I uttered something aloud that I’d thought to myself a hundred times before: “I always hope I’m going to see a wolverine in a setting like this.” Just then, and I mean *just* then, I turned around to face a steep avalanche chute behind me. And there it was, not 200 yards away: a large animal loping low to the ground, its formidable form a masterpiece of wildness on a pure white canvas. The wolverine was gone within seconds, disappearing into the chute-side rocks and vegetation before our friend could zero in on its location. Fortunately, Robert saw it, too, or he would have thought I was dreaming. In the not-too-distant past, he probably would have been right.

Wolverines and their smaller cousins, Pacific fishers and Pacific martens, were decimated by Northwest trappers in the late 1800s and early 1900s—the latter two killed for

their fur, the former mostly persecuted as trap-raiders. With habitat loss and widespread poisons for predator control dealing additional blows to already severely diminished populations, wolverines and fishers were eliminated from the Washington Cascades, and fishers were also extinguished from the Olympic Peninsula (where wolverines never occurred). Martens suffered a more complicated fate, having been left intact in the Cascades but perhaps on the brink of extinction in the Olympics.

Regional scientists are now using innovative technologies, diverse partnerships, and hiking boots on the ground to study these little-known mustelids (members of the weasel family) and try to assist them in their recovery. “Each suffered similar fates historically, but each has a very different status currently, resulting from divergent conservation stories,” says Keith Aubry, emeritus scientist at the US Forest Service’s (USFS) Pacific Northwest Research Station and global expert in mustelids.

Aubry is passionate about connecting the dots between the past and the present for rare mustelid populations so that we can better understand their needs moving forward. “You can’t know where you want to get to if you don’t know where you’ve been with these species.”

WOLVERINES WERE GENERALLY ABSENT from Washington for much of the twentieth century. There was a small rash of confirmed accounts in the 1960s—possibly wolverines who went on walkabout from Canada when their prey cycled high—but the species didn’t take root again until the mid-1990s. Then, Aubry and colleagues began to see a significant rise in verifiable records from the North Cascades, and in 1997, a female wolverine was struck and killed by a vehicle. The road-killed juvenile was wandering well west of the Cascade crest and outside of predicted wolverine habitat. Wolverines were definitely on the move, but where were they coming from, and were they finally here to stay?

Intrigued by the wolverine’s resurgence, Aubry and fellow USFS wildlife biologist Cathy Raley launched a collaborative wolverine telemetry study in 2005. “At that time, we didn’t know if there was a resident population—didn’t even know if there were more than occasional sightings,” Raley says. Over the next decade, Aubry and Raley worked closely with other agency biologists to trap and collar 14 wolverines in the North Cascades, allowing them to track these animals’ cross-country travels via satellite technology.

One snapshot of data collected from a collared male named Special K shows he walked 11 straight-line miles through rugged Cascades terrain in a six-hour period; over a stretch of nine months, his wanderings covered a remarkable 1,000 square miles. I got to meet this tenacious solo climber once, while visiting a live-capture site in 2015. I’ll never forget his lion-like roar as he exited the log trap, or the massive, claw-clad paws that enable him to float across the frozen landscape and dig into its depths for a refrigerated meal.

Satellite data indicates that it might also have been Special K we’d seen at the lake in 2014 when we were out testing methods to monitor Washington’s wolverine population. Some researchers study wolverines by hanging a tantalizing piece of bait above a small wooden platform positioned opposite a motion-triggered camera. When the animal climbs onto the platform and looks up at the bait, it exposes its uniquely identifiable chest pattern to the camera. The problem is, two-legged access to Cascadian wolverine habitat in winter can be difficult, dangerous, or downright impossible at the scale necessary to replenish baits scattered throughout the wilderness. And during summer, wolverines apparently have better places to be than at survey stations—or better things to eat than a rotting beef bone. We needed a way to attract wolverines to our camera sites during the winter without having to get to them ourselves.

Imagine an IV-type bag that drips stinky liquid instead of medication. Now imagine this bag, a miniature pump, and its electronic controller stored in a bear-proof metal box secured to a tree 15 feet from the ground—high enough to remain above snow line even when it snows *a lot*.

In his role as a senior scientist with Seattle’s Woodland Park Zoo, Robert partnered with engineers at Microsoft and a state biologist from Idaho to create an automated scent dispenser for wolverines. The dispenser is programmed to release a tiny amount of lure (think: *eau de skunk* blended with anise) daily, eliminating the requirement to rebait camera sites in winter. This new technology has already been a game-changer for detecting wolverines in the North Cascades, increasing our detection rate more than tenfold during our pilot study in the winter of 2016-17. The dispenser was also used effectively in a multi-state wolverine survey conducted across Montana, Idaho, Wyoming, and Washington.

As Robert and his co-developers continue to tweak the scent dispenser’s design and Woodland Park Zoo strategizes



Winter Sentinels © Evan Cantor

to make this tool more widely available to researchers, wolverines are further expanding their range in Washington. Given genetic data and other available information, Aubry thinks these newcomers likely dispersed from the Coast Mountains of British Columbia. At least a few wolverines have even ventured south of Interstate 90 (I-90), the major east-west highway that bisects the Cascades near the center of the state. In early 2018, cameras deployed by biologist Jocelyn Akins photographed two kits near Mount Rainier National Park at the third reproductive den to be documented statewide (the first two were found in the North Cascades in 2012). Sadly, only a few months later, a 37-pound male wolverine met his demise trying to cross the same interstate, serving as a tragic reminder that people are still a threat to wolverines, even if over-trapping is a thing of the past.

Indeed, wolverines face a new suite of hazards from human activities, some of them presented by people who

love wilderness. A recent study in the Rocky Mountains found that wolverines avoided areas of motorized activity (e.g. snowmobiles) *and* non-motorized winter recreation, such as skiing. Lead researcher Kim Heinemeyer and her co-authors speculate that “the potential for backcountry winter recreation to affect wolverines may increase under climate change if reduced snow pack concentrates winter recreationists and wolverines in the remaining areas of persistent snow cover.” I’ve heard Raley express similar concerns for the North Cascades, where a growing number of people want to live and play in the remote places wolverines need to survive.

Researchers have also predicted that climate change will reduce the spring snowpack that wolverine females in the Cascades and elsewhere rely upon for their reproductive dens. In 2010, this prediction and its dire implications compelled the US Fish and Wildlife Service to propose listing wolverines in the lower 48 states as threatened under the Endangered Species Act. The decision is still being battled about in the courts.

In the short-term, wolverines represent a best-case scenario for carnivore restoration, as they were able to return to Washington on their own and they’re finding what they need to thrive there. Fingers crossed, conservation efforts to promote habitat connectivity in the Cascades, including wildlife crossing structures on I-90, will enhance the wolverine’s chances of long-term recovery. Pacific fishers, on the other hand, needed a little more help.

“THIS NEVER GETS OLD.” It’s a damp December morning in 2018, and Jeff Lewis, a wildlife biologist with Washington Department of Fish and Wildlife (WDFW), is clearly elated as he welcomes the more than 100 people who have traveled to North Cascades National Park to witness the first-ever release of fishers into the surrounding forest. Lewis has worked on behalf of fishers for much of his career, having spent years studying them in California and Oregon prior to co-authoring Washington’s status report for this species in 1998. Today’s release marks the launch of the third and final phase of the fisher recovery effort he’s helped bring to fruition, with reintroductions having already been carried out in the Olympics and the southern Washington Cascades. Lewis sums up the project’s mission with heartfelt humility: “All you’ve got to do is bring them back, because the habitat is there.”

The solution sounds simple enough, but the task of ecological redemption is a long and windy road. WDFW's recovery plan for fishers, also co-authored by Lewis, was published in 2006, eight years after the state listed the species as endangered. Like wolverines, fishers were thought to be gone from Washington. Unlike wolverines, however, the semi-arboreal fisher lives only in forests, and there wasn't a source population close enough to naturally recolonize forested habitats in the Cascades or the Olympics. The fisher's distribution in other Pacific states had been reduced to small, disjunct populations, and its range in southern British Columbia was contracted as well. The recovery plan's conclusion? "A self-sustaining fisher population is not likely to become re-established in the state without human intervention."

To advance fisher recovery, Lewis and others created a core team of project partners consisting of WDFW, the National Park Service, and Conservation Northwest (CNW), a regional conservation group that had initiated and helped fund the feasibility assessment for a reintroduction. Dave Werntz, CNW's Science and Conservation Director, felt the timing was right for the fisher's return. "We had worked really hard for years to protect old-growth forest habitat, and we prevailed in that," he says. "As we were looking toward now rewilding these habitats—bringing back species that were once here but had been extirpated for various reasons—we wanted to start with fishers, to get familiar with the process we needed to go through."

Ironically, as part of this process, the fisher's historical foe would become one of its saviors. With operational support provided by CNW, the project recruited Canadian trappers to help them source live fishers for translocation to Washington. Between 2008 and 2010, 90 fishers were moved from central British Columbia to Olympic National Park. The translocated animals hit the ground running, with at least three females giving birth in 2009. Fishers in search of new territory turned up in a variety of terrains, from mountainous forest to coastal plains. One motivated male, released in 2008, meandered all the way to the northwest tip of the Olympic Peninsula, traversing some 55 miles across a mix of federal, state, and private lands before arriving on the Makah Reservation at Washington's Neah Bay.

*Ironically, as part of this process,
the fisher's historical foe would
become one of its saviors.*

The Makah Tribe agreed to help track the collared male with radio telemetry and later became engaged in more extensive fisher monitoring on tribal lands and neighboring forests. "We've always been supportive of fishers and the whole reintroduction," says Shannon Murphie, Wildlife Division Manager for the tribe. "We were just curious to know what was really out there." Partnering with Olympic National Park and the US Geological Survey, the Makah Tribe created the Makah Fisher Density Estimate Project in 2017. Tribal staff and volunteers set out 86 stations consisting of cameras and hair-snagging cubbies (for DNA), detecting seven individuals over a two-year period.

"The tribes were integral partners," says Patti Happe, Wildlife Branch Chief at Olympic National Park. Based on data collected by federal, tribal, and state field biologists, she's cautiously optimistic about the population's future, although she's careful to say that fishers are not yet fully recovered. Happe is concerned about the fishers' genetic diversity and wants to be sure that not just a few females are doing all the breeding—in which case, biologists would potentially need to bring in more animals to avoid inbreeding depression (a reduction in survival and fertility rates resulting from mating between close relatives). "We just need to get over this genetic hurdle, if there is one. Or, just give them time," she says.

Meanwhile, the success of the fisher reintroduction on the Olympic Peninsula precipitated similar efforts in the Cascades. With a broad host of partners from the US and Canada, the core team released 73 fishers between 2015 and 2018 into central Washington's Mount Rainier National Park and the Gifford Pinchot National Forest. Then, in late 2018, the project progressed to the North Cascades, where Lewis and his collaborators ushered their audience from the national park's auditorium to the nearby release site. There, the team freed six fishers one by one from wooden crates, allowing them to re-enter a wild scene they'd been written out of almost a century before. Those animals have now been joined by 20 more. Ultimately, the researchers plan to reintroduce a total of 80 fishers into this portion of the recovery area.

Lewis says it's too soon to say how the fishers will fare in the Cascades, although preliminary results are positive.

“We’ll know a lot more once we complete our long-term monitoring effort in three to five years.” By then, he hopes the hand-picked pioneers and their offspring will have begun to fill a niche that has been vacant for far too long.

NORMALLY, BETSY HOWELL WOULD BE THRILLED to see a Pacific fisher captured on one of her motion-triggered cameras. A veteran USFS wildlife biologist in the Olympic National Forest, Howell knows these animals are very rare, and she is well-versed in the important role they have to play in forested ecosystems—by preying on small mammals, for example, and distributing berry seeds after consuming the fruit. But Howell’s disappointment is palpable as we scroll through our photos after a six-hour hike into the Mount Skokomish Wilderness. Coyote. Gray jay. Black-tailed deer. The camera’s memory card reveals the usual suspects. Then, “fisher!” I exclaim, as a brown, elongated animal—almost half bushy tail—pops up on our viewing screen. “Always good to see a healthy fisher,” Howell replies, her good-natured tone reflecting a glass half-full. Yes, fishers are an exciting find, but our quarry is the Pacific marten, much rarer on the Olympic Peninsula than the reintroduced fisher. If wolverines look a bit like bear cubs and fishers can be compared to a hefty housecat, martens might be thought of as the fisher’s cute, feisty kitten. Weighing in at only 1 to 3 pounds, these compact carnivores are nonetheless capable of taking care of themselves in the forest. In his classic 1949 monograph, *Mammals of the Olympic National Park and Vicinity*, Victor B. Scheffer tells of a regional trapper who found feathers, rabbits, mice, squirrels, and spotted skunks in the stomachs of martens.

Historically, Scheffer writes, martens occurred throughout the coniferous forests of the Olympic Peninsula, “from salt water to timberline.” Recent genetic research conducted by Keith Aubry and colleagues suggests that martens in the Olympics originated from the Cascades thousands of years ago and then became isolated by geographical barriers. Although martens in the Cascades occupied mostly the high country, where they presumably enjoyed some protection from trappers, their ancestors in the Olympics inhabited a broader range of elevations. Those living down low disappeared with the fishers; Aubry thinks they were probably gone by the end of the Great Depression. “Once populations were impacted by over-trapping and habitat loss, it makes sense that they would retreat to

their primary habitat in high-elevation forests where deep snowpacks form,” says Aubry.

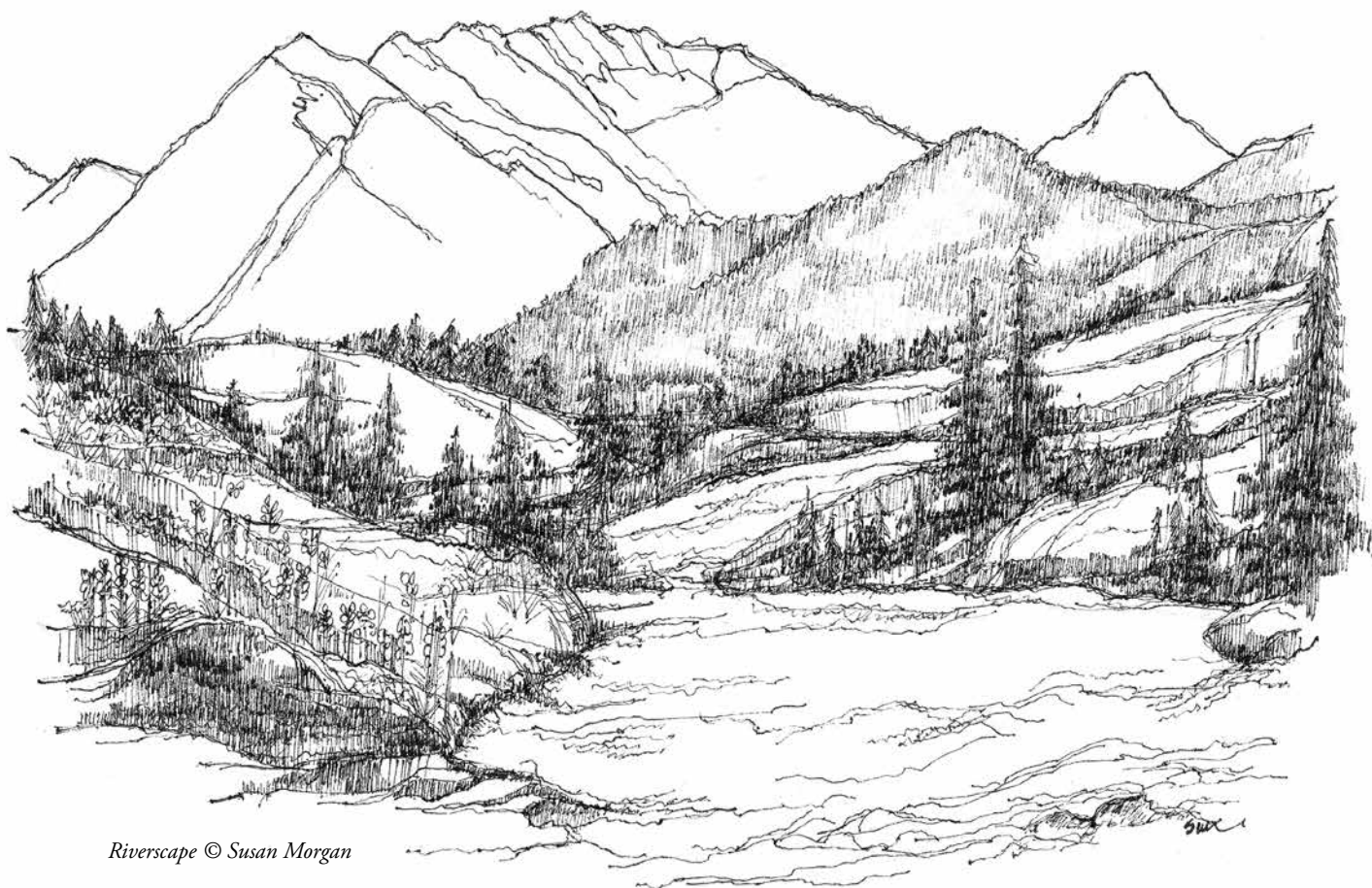
Fast forward almost a century, and those high-elevation retreats may be all the martens have left. Since the late 1960s, there have been only 11 reliable marten detections on the Olympic Peninsula—all but the first two were above 2,000 feet—including a juvenile female found dead in 2008 on Mount Rose, in the southeastern corner of the peninsula. Aubry points out that this discovery was particularly important because it showed that martens were reproducing in the area a decade ago. Genetic analyses confirmed that the Mount Rose female was a remnant of the original population.

In 2017, Robert and I began a collaboration with Howell, Happe, and other agency biologists to help determine if a viable marten population still exists in the Olympics. As part of this research, we paired motion-triggered cameras with the scent dispenser initially designed for wolverines in hopes that we could detect rare and reclusive martens over the winter. Thus far, the project has photographed two martens in the upper Hoh River drainage, deep within Olympic National Park. This is the only place on the entire peninsula where previous camera surveys yielded detections as well, one in 2015, another in 2016.

Each photographic image is a glimmer of hope, but many questions remain about the status of martens in the Olympics. “I’m really concerned about how many are left and if there is enough genetic diversity for a healthy population,” says Happe, who acknowledges that a targeted augmentation (adding new individuals to a sparse population) may eventually be required to maintain martens on the peninsula. But for now, we will keep on trying to gather more information. As Aubry put it, we can’t know where we want to get to if we don’t know where we’ve been.

Nor can we achieve our conservation goals without opening our hearts and minds to the animals themselves. Martens, fishers, wolverines—in their own unique ways, these animals are telling us that to rewild broken landscapes with our scientific prowess, we must also internalize the life lessons we learn along the way. About teamwork. About resilience. About paying careful attention to the past.s article:

[This article was originally published in Earth Island Journal, Summer 2019. —Rewilding Earth editors]



Riverscape © Susan Morgan

The River I

By Tim McNulty

Along the south bank of the McKinley,
close to dark:
the fresh tracks of what look to be

A young caribou,
And following, over them,
The larger track of the wolf.

Clouds deepen the mountain night;
a hawk owl circles the stones.

I build a cairn to mark our crossing.
It stands
like a man who has waited too long for something.

By morning
only the river is left singing.

The River II

By Tim McNulty

Who live here speak footfall and wind.
Caribou, belly-deep in willow,
lifts his antlers and drifts away.
Ptarmigan flutter tails in fright.

Grizzly has led her children up a ravine:
she rests now, almost sleeping.
The tips of her fur shine with icelight.

Downriver, Raven draws circles
around a story his uncle left unfinished.
Already the small hoofed feet are dancing
far over the tundra.

[Poems originally appeared in In Blue Mountain Dusk, Pleasure Boat Studio, 1992. —Rewilding Earth editors]

Appendix

ABOUT THE COVER ARTIST

Steven Kellogg is one of the Champlain-Adirondack Biosphere Reserve's most cherished friends, artists, and advocates. A wildly successful illustrator and author of scores of children's books, Steven is also an extraordinarily generous supporter of conservation groups, animal shelters, and civic organizations.

Steven grew up in Connecticut, visiting the Adirondack Coast each summer and hoping he could become a wildlife illustrator for *National Geographic*. Fortuitously, he did even better. After graduating from the Rhode Island School of Design, Steven began illustrating children's books (often with editor David Reuther, another *Rewilding Earth* supporter), and he quickly won widespread acclaim. He married esteemed art historian Helen Hill (who passed away last year, sadly), and they eventually made a home in Essex, New York, eastern edge of Adirondack Park. Steven has passed on his love of wildlife to his whole family. His grandson Zack Porter is now Lake Champlain Keeper for the Conservation Law Foundation.

Steven has told stories and shown children how to draw wild creatures in hundreds of classrooms across the country. Books he has illustrated and/or written include *Frogs Jump: A Counting Book*, *Is Your Mama a Llama?*, *Engelbert the Elephant*, *The Invisible Moose*, *Best Friends*, and *The Mysterious Tadpole*, and most recently *The Word PIRATES*. Steven has served on many charitable boards of directors, including the National Children's Book and Literacy Alliance. He is a co-founder of Champlain Area Trails (CATS), a key partner in Split Rock Wildway (one of The Rewilding Institute's focal projects).

Steven's cheering style sets him above daily tribulations. As cognizant as anyone of the extinction and climate crises, Steven still finds the will to paint wild hope and happiness, as with this *Rewilding Earth* cover illustration. Steven adapted this painting from a book he illustrated fifteen years ago, *If You Decide to Go to the Moon*, keeping the general uplifting, natural feel but adding the Puma, Wolf, and Landlocked Atlantic Salmon, to suggest the successful return of our missing wild neighbors.

The scene here is a future rewilded view from the west shore of Lake Champlain in New York's great Adirondack Park looking across to Vermont's Green Mountains, including the most distinct in profile, Camel's Hump. The creatures depicted either are or were gravely diminished from the region. Bald Eagle and Black Bear have enjoyed remarkable recoveries—are rewilding success stories. The fish shown survive in reduced numbers, but need removal of more dams on tributaries of Lake Champlain to regain healthy numbers. Puma and Wolf, the Northeast's top carnivores, are still missing, and we are overdue to welcome them home.

Artists and storytellers like Steven Kellogg are critical to building the public support needed to knit back together an Atlantic/Appalachian/Adirondack Wildway and restore its missing species—our wild neighbors. The whole *Rewilding Earth* team thanks Steven warmly for his many decades of helping kids keep their sense of wonder about other life forms, and we look forward to sharing more of his inspiring art with our followers.

ABOUT THE CONTRIBUTORS

Bill Amadon, Stewardship Coordinator, Champlain Area Trails, has a BA degree in Fine Arts and is an accomplished artist and photographer, and past-president of the Adirondack Art Association. He was born and raised in New York's Adirondack Park and knows the local landscape and the people who live here and has great knowledge of natural science and environmental issues. He is a founding member of Champlain Area Trails and has served as a board member. For many years prior to being hired as a staff member in 2015, Bill worked as a CATS volunteer, creating and maintaining trails.

Sheri Amsel has written and illustrated more than 25 children's books and field guides. In 2009, she was awarded the Elizabeth Abernathy Hull Award for *Outstanding Contributions to the Environmental Education of Youths* by the Garden Club of America. Her work has moved online with exploringnature.org, a comprehensive illustrated science resource website for students, educators, and homeschool families. Sheri works out of her home studio in the Adirondacks.

Mark Anderson is director of conservation science for The Nature Conservancy's Eastern U.S. Region. He provides science leadership, ecological analysis, and landscape assessments for conservation efforts across twenty-two eastern states. He holds a doctorate in ecology from University of New Hampshire and has published widely on climate change resilience, large landscape conservation, biodiversity, and forest dynamics. In 2016, Mark won The Nature Conservancy's Conservation Achievement award. Mark also serves on the board of directors of Northeast Wilderness Trust.

Karen Boeger is a retired schoolteacher, Nevada "Desert Rat," and has been a conservation activist for over 40 years. She loves to hike, ski, canoe, and forage. Karen feels fortunate to have grown up at a time when much of the West was still wild and the dominant recreational uses were

traditional human-powered ones. Within her generation, those opportunities have vastly diminished. She works to ensure that future generations will continue to have the same wilderness opportunities and traditional outback experiences that she has been fortunate to enjoy.

Evan Cantor is a long-time Colorado wilderness artist. His works are impressionistic windows into the wilderness places he loves and hopes to protect, images that capture the sacredness of the earth through landscape. These images are informed not only by his own experiences back-of-beyond, but by transcendental philosophies ranging from Thoreau and Whitman to Aldo Leopold and Edward Abbey. Conservationists may recall Evan's scratchboard drawings in *Wild Earth* and *Wildflower* magazines. His images have also appeared in several of John Fielder's books, and works of several University presses, the Rocky Mountain Land Library, Southern Rockies Wildlands Network, and the Northwest Earth Institute. He is a member of the Temagami 22, an invitational group of North American artists concerned with environmental preservation, and was the Rocky Mountain Land Library's 2005 artist-in-residence. In 2006 he was honored with an award from the Southern Rockies Conservation Alliance for his "outstanding contribution" of both art and music to the wilderness preservation effort in Colorado. He took up oil painting at Ghost Ranch in October 2016 and has been going strong ever since. Evan is also the lead singer of the classic-rock outfit The CBDs, playing the guitar and blues harp.

David Crews is author of *Wander-Thrush: Lyric Essays of the Adirondacks* (Ra Press, 2018) and *High Peaks* (Ra Press, 2015)—a poetry collection that catalogs his hiking of the "Adirondack 46ers" in northern New York. He holds an MFA from Drew University where he studied with poets Ross Gay, Aracelis Girmay, Ira Sadoff, and Judith Vollmer. Crews serves as artist-in-residence with ARTS By The People, where he edits poetry and lyrical prose for *Platform Review* and the *Platform Chapbook Series*, and contributes

as writing coordinator for *Moving Words*—a project that makes possible international collaboration among artists of prose, poetry, voice acting, and animation. His poem “Ecotone” will be featured this year in the ABTP project *Intonation*—a collaboration between American poets and composers from the Jerusalem Academy of Music and Dance.

Eileen Crist received her Bachelor’s from Haverford College in sociology in 1982 and her doctoral degree from Boston University in 1994, also in sociology, with a specialization in life sciences and society. Between 1989 and 1991 she lived in Amherst, MA where she studied environmental evolution (Gaia theory) with Lynn Margulis. Following two post docs after graduation from Boston University (at University of California San Diego and Cornell), she accepted a position at Virginia Tech in the Department of Science and Technology in Society where she has been teaching since 1997. She is author of *Images of Animals: Anthropomorphism and Animal Mind* and *Abundant Earth: Toward an Ecological Civilization*. She is also coeditor of a number of books, including *Gaia in Turmoil: Climate Change, Biodepletion, and Earth Ethics in an Age of Crisis*; *Life on the Brink: Environmentalists Confront Overpopulation*; and *Keeping the Wild: Against the Domestication of Earth*. Eileen was a contributor to the late journal *Wild Earth*, and now serves on the Rewilding Leadership Council. She lives in Blacksburg, Virginia, with her husband Rob Patzig where they also teach yoga together.

John Davis is executive director of The Rewilding Institute and editor of *Rewilding Earth*. He rounds out his living with conservation field work, particularly within New York’s Adirondack Park, where he lives. John serves on boards of RESTORE: The North Woods, Eddy Foundation, Champlain Area Trails, Cougar Rewilding Foundation, and Algonquin to Adirondack (A2A) Conservation Collaborative. In 2011, John completed TrekEast, a 7600-mile muscle-powered exploration of wilder parts of the eastern United States and southeastern Canada—sponsored by Wildlands Network and following lines suggested in Dave Foreman’s book *Rewilding North America*—to promote restoration and protection of an Eastern Wildway. His book about that adventure, *Big, Wild, and Connected:*

Scouting an Eastern Wildway from Florida to Quebec, was published by Island Press. In 2013, John trekked from Sonora, Mexico, north along the Spine of the Continent as far as southern British Columbia, Canada, again ground-truthing *Rewilding North America* and promoting habitat connections, big wild cores, and apex predators. This second continental wildways trek is the subject of the film *Born to Rewild*.

Michael Dax is the New Mexico Representative for Defenders of Wildlife, based in Santa Fe. Before moving to New Mexico, Michael worked in Grand Canyon and Yellowstone National Parks as a trail groomer and tour guide. Michael earned a master’s degree in environmental history from the University of Montana where he began work on his book, *Grizzly West*, which focuses on the attempt to reintroduce grizzly bears to the Selway-Bitterroot Wilderness in Montana and Idaho.

Kenyon Fields, former western strategic director of Wildlands Network, now co-manages Mountain Island Ranch with his wife Mary Conover. Kenyon and Mary both serve on the board of directors of Western Landowners Alliance, which they co-founded (and where they met!).

Mark Fisher is the author of *Self-willed Land*, an advocacy website for wild land and nature (self-willed-land.org.uk). He is an honorary member of the Wildland Research Institute at the University of Leeds, the aim of which is to determine the requirements, strategies, and policies for a transition to a greater presence of wild land in Britain and Europe. Mark recently became a member of the IUCN Commission for Ecosystem Management. Along with his critique of the nature development interpretation of rewilding included in this book, Mark has written a carefully researched history of rewilding thought and work, which is available on his website: *NATURAL SCIENCE AND SPATIAL APPROACH OF REWILDING –evolution in meaning of rewilding in Wild Earth and The Wildlands Project*. Mark also is in our Rewilding Earth podcast series, episode number 17.

Dave Foreman is a legendary conservation leader and wilderness strategist. His half-century career in conservation

has changed, and bettered, the course of the wilderness movement.

Dave's professional work in conservation has included serving as Southwest regional representative for The Wilderness Society (1973-1980), co-founder of Earth First! (1980), publisher of *Wild Earth* magazine (1990-2005), co-founder of The Wildlands Project (1991), co-founder of the New Mexico Wilderness Alliance (1997), and founder of The Rewilding Institute (2003). In these capacities, Dave has coined the phrases and articulated the concepts behind Earth First!, No Compromise in Defense of Mother Earth, Rewilding, and Born to Rewild. He has officiated the marriage between wildlands advocacy and conservation biology. He has empowered the conservation community to think BIG, to strive to protect and restore the whole biotic community, not settle for preserving a few remaining scraps.

Among Dave Foreman's many outstanding conservation accomplishments are getting big additions to the Gila and other Wilderness Areas, blocking numerous timber sales in National Forests, blockading logging roads into various old-growth forests, forcing the Forest Service to re-do its inadequate Roadless Area Review and Evaluation, serving as lead author on several wildlands network designs, co-founding *Wild Earth* magazine, and getting rewilding adopted as a fundamental goal in conservation. Dave received the 1996 Paul Petzoldt Award for Excellence in Wilderness Education and was recognized by Audubon Magazine in 1998 as one of the 20th century's most important conservation leaders.

Dave has shared his visionary ideas on big connected wild places complete with top carnivores through hellfire & brimstone public sermons and through his books. Dave's books include such landmarks as *The Big Outside* (the first roadless areas inventory since Bob Marshall's a half century earlier), *Confessions of an Eco-Warrior*, *Rewilding North America*, *Man Swarm*, and *The Great Conservation Divide* (all available through rewilding.org).

Dr. Richard Grossman has been concerned about human overpopulation growth since 1960, and practiced OB-GYN in Durango, CO, for 40 years. Dr. Grossman writes a monthly column "Population Matters!", which long ran in the *Durango Herald* and is now often run in

Rewilding Earth. If you would like to receive these regularly, you can contact him at: subscribe@population-matters.org (the hyphen is obligatory!).

Randy Hayes has been described in the *Wall Street Journal* as "an environmental pit bull." He is Executive Director of Foundation Earth, an organization fostering the big rethink from the ground up to help protect the planet's life support systems. Hayes, a former filmmaker, then founder of Rainforest Action Network, is a veteran of many high-visibility corporate accountability campaigns and has advocated for biocentric worldviews and Indigenous peoples throughout the world.

Jerry Jenkins is a biologist, writer, and photographer who directs the Northern Forest Atlas Project. He is a former staff scientist with the Wildlife Conservation Society Adirondack Program. He was trained in physics and philosophy, and has fifty years of field experience as a botanist and ecologist in the Northern Forest. He is the author of *The Adirondack Atlas*, *Acid Rain in the Adirondacks*, *Protecting Biodiversity on Conservation Easements*, and *Climate Change in the Adirondacks*. He has received, among others, the Harold K. Hochschild award from the Adirondack Museum and the W.S. Cooper award from the Ecological Society of America.

Roger Kaye came to Alaska in the mid-1970s, where he spent the summer working at Camp Denali, a wilderness, eco-tourism lodge located 90 miles inside Denali National Park. He went on to attend the University of Alaska Fairbanks, and he eventually earned a Ph.D. there in 2009. Roger has spent more than 30 years serving the public lands in Alaska. He spent a year with the Alaska Department of Fish and Game, following that with work at the US Fish and Wildlife Service as a Wilderness Specialist and pilot. Currently, he is a Wilderness Specialist and pilot for the Arctic National Wildlife Refuge, stationed in Fairbanks, Alaska. Roger played a significant role in shaping the Wilderness Stewardship Policy of the USFWS, has contributed to countless management plans, and is the author of *Last Great Wilderness: The Campaign to Establish the Arctic National Wildlife Refuge*. Roger also has taught wilderness management and environmental psychology

at the University of Alaska Fairbanks, and conducted numerous oral history interviews that are housed with the US Fish and Wildlife Service and at the Alaska and Polar Regions Collections and Archives at Elmer E. Rasmuson Library, University of Alaska Fairbanks.

Steven Kellogg (See “About the Cover Artist”)

Andy Kerr is the Czar of The Larch Company and consults on environmental and conservation issues. The Larch Company is a for-profit non-membership conservation organization that represents the interests of humans yet born and species that cannot talk. He is best known for his two decades with Oregon Wild (then Oregon Natural Resources Council), the organization that brought you the northern spotted owl. Kerr began his conservation career during the Ford Administration. At last count, Kerr had been closely involved in with the establishment or expansion of 46 Wilderness Areas and 47 Wild and Scenic Rivers, 13 congressionally legislated special management areas, 15 Oregon Scenic Waterways, and one proclaimed national monument (later expanded). He has testified multiple times before congressional committees.

Gary Lawless is a poet, bioregional advocate, and co-founder of Gulf of Maine Books, in Brunswick, Maine. He and his wife Beth Leonard care-take the old farm of Henry Beston & Elizabeth Coatsworth (both acclaimed authors of the mid-20th century), near Damariscotta Lake. Gary's score of poetry collections includes *Poems for the Wild Earth* and *Caribou Planet*. His new book of poems is *How the Stones Came to Venice*, and his poetry blog is mygrations.blogspot.com. Gary was one of the poetry editors for the late great journal *Wild Earth*.

Jon Leibowitz is Executive Director of Northeast Wilderness Trust—the only land trust in the northeastern United States focused exclusively on protecting forever-wild landscapes. He has worked in the private land conservation field since graduating from Vermont Law School in 2011 with a Juris Doctor and Masters in Environmental Law and Policy. Before joining Northeast Wilderness Trust, Jon was the Executive Director of Montezuma Land Conservancy, where he worked to conserve farms, ranches,

and landscapes of pinion and juniper, ponderosa, and sage right on the edge of the Colorado Plateau, in Cortez, Colorado. Jon serves on the Board of Vermont Parks Forever in addition to being part of the Rewilding Leadership Counsel. He lives on the outskirts of Montpelier, Vermont, with his family.

Rob Leverett, son of the East's preeminent old-growth sleuth Bob Leverett, carries on the family tradition of finding and protecting big old trees. Rob is rooted in Native American traditions, and he teaches flint-napping as well as exploring and sketching old-growth forests. Rob lives and rambles in New York's Adirondack Park, where old-growth forest still comprises much of the landscape.

Paula MacKay is a freelance writer, researcher, and field biologist who has studied wild predators for the past two decades. Paula served as managing editor for *Noninvasive Survey Methods for Carnivores* (Island Press, 2008) and earned an MFA in creative writing from Pacific Lutheran University in 2015. She has written for numerous conservation groups, books, and magazines. Paula was on the editorial team of the predecessor to *Rewilding Earth*, *Wild Earth* magazine. She lives with her biologist husband Robert Long and their dog Alder on Bainbridge Island, Washington. Visit Paula's website at paulamackay.com.

Angela Manno has been a professional artist for the past 40 years. Her virtuosity in a number of painstaking art forms both east and west, ancient and contemporary, put her in a class by herself. Her media include encaustic, batik, plein air pastel landscapes and traditional and contemporary icons in egg tempera and gold leaf on wood. Her mixed media work including photography, fiber and acrylic, is a synthesis of diverse cultural sensibilities symbolizing unity in diversity—an urgent message for our time. Angela Manno's art has been featured in 20 solo and over 80 group exhibitions in distinguished venues in North America and Europe. In 1988, Manno was commissioned by NASA to commemorate the U.S. return to space flight with the launch of *Discovery*, the first after the *Challenger* accident. In 2000, her one-woman traveling art exhibition *Conscious Evolution: The World At One* became part of the permanent fine art collection of the Smithsonian

Institution's National Air & Space Museum. Manno has taught and lectured widely on her work through university and museum programs including Parsons School of Design in New York. Her artwork has been noted in numerous publications.

Larry Master is a conservation biologist, a zoologist, and, in his retirement, a conservation photographer. He has been photographing wildlife and natural history subjects for more than 60 years. After doctoral and post-doctoral studies at the University of Michigan, Larry spent 20 years with The Nature Conservancy (TNC) and 6 years with NatureServe, most of that time as their Chief Zoologist. NatureServe is an offshoot of the Conservancy and is the umbrella organization for the network of natural heritage programs and conservation data centers in every U.S. state and Canadian province as well as in many Latin American countries. Larry started several of these programs (e.g., MI, NH, VT) and also oversaw the development of TNC's and NatureServe's central zoological databases and revisions to the Network's Conservation Status Assessment methodology. Larry co-authored *Rivers of Life: Critical Watersheds for Protecting Freshwater Biodiversity*. He has also authored numerous other publications and chapters in several books (e.g., *Precious Heritage, Our Living Resources*). In his retirement he serves on boards of the Adirondack Explorer, the Ausable River Association, and the Northern Forest Atlas Foundation, as well as on the Center for Ecostudies Science Advisory Council, The Biodiversity Conservancy's Advisory Board, NatureServe's Strategic Advisors Council, and the American Society of Mammalogists' Mammal Images Library. Larry resides in Keene, NY and West Cornwall, CT.

Tim McNulty is a poet, essayist, and nature writer based on Washington's Olympic Peninsula. He is the author of ten poetry books and eleven books of natural history. Tim has received the Washington State Book Award and the National Outdoor Book Award, among other honors.

Tim's newest book of poems, *Ascendance*, is published by Pleasure Boat Studio. His natural history books include *Olympic National Park: A Natural History*, and *Washington's Mount Rainier National Park*. His work has been translated into German, Chinese, and Japanese. Tim lives with his wife in the foothills of the Olympic Mountains.

Brad Meiklejohn served until his recent semi-retirement as Alaska State Director for The Conservation Fund, where he has worked since 1994. Brad has directed conservation projects protecting over 300,000 acres of wild land in Alaska, New Hampshire, and Nevada. Brad is also a co-founder of the American Packrafting Association, with over 2,000 members in 30 countries. Brad is a conservationist, birder, and wilderness explorer and has completed packraft expeditions on 6 continents. Brad served as Associate Director for the Utah Avalanche Center during the 1980s, and later as President of the Patagonia Land Trust. Brad is a past board director of The Murie Center and the Alaska Avalanche School.

Patty Meriam grew up in Nyack, NY and received a BA from Boston College in Art History/PreMed where she concentrated on Dutch 17th Century art and studied composition, style, theory, and cultural influence. She received an MS in Historic Preservation from Columbia University's College of Architecture, Planning, and Preservation with a concentration in materials conservation. Patty has been accepted into such artist societies as the Allied Artists of America, Oil Painters of America, Northern Vermont Artist Association, and the Catherine Lorillard Wolfe Art Club in Manhattan, The Vermont Academy of Arts and Science, Bryan Memorial Gallery, The National Art League, and the National Association of Women Artists. She now lives in Barre, Vermont, where she is board chairperson of the Vermont Granite Museum and Stone Arts School and past chair of the Barre Opera House. Patty's medium is oil paint and her website is PLMeriam.com, "Celebrating the strength of art to bring attention to nature's beauty and fragility."

John Miles grew up in New Hampshire and graduated from Dartmouth College with a degree in anthropology. He earned an MA at the University of Oregon in Recreation and Park Management and a PhD in Environmental Studies and Education at the Union Institute. While at Dartmouth, John attended a talk by David Brower, then Executive Director of the Sierra Club, who spoke about the threat of dams to Grand Canyon National Park. Inspired by Brower's talk and books, such as Stewart Udall's *The Quiet Crisis*, John was hooked.

After grad school he landed in Bellingham, Washington, where he became involved in his first conservation issue, the establishment of North Cascades National Park. At Western Washington University, John was in on the founding of Huxley College of Environmental Studies, where he taught environmental education, history, ethics, and literature, and ultimately served as dean of the College. He taught at Huxley for 44 years, climbing and hiking all over the West, especially in the North Cascades, for research and recreation. Author and editor of several books, including *Guardians of the Parks*, *Koma Kulshan*, and *Wilderness in National Parks*, John served on the board of the National Parks Conservation Association and the Washington Forest Practices Board, and he helped found and build the North Cascades Institute.

Retired now and living with his wife Susan near Taos, New Mexico, he continues to work on national parks, wilderness, and rewilding the earth, and he hikes, bikes, and skis whenever possible. He contributes to the national-parkstraveler.org, as well as *Rewilding Earth*, and is writing a history of the North Cascades Institute.

Anabella Miller is a twenty-one year-old student in ecology at New Mexico Highlands University. She is studying conservation with an interest in herps, particularly boreal toads. She runs cross-country, indoor distance, and outdoor steeplechase at NMHU.

Brian J. Miller received a PhD from the University of Wyoming in behavioral ecology and conservation of black-footed ferrets and was then awarded a Smithsonian Institution Fellowship at their Conservation and Research Center. Brian worked on black-footed ferret conservation for a decade, then lived in Mexico for five years beginning an ongoing research project on jaguars and pumas in the dry tropical forest of Jalisco, Mexico. After seven years as a Coordinator of Conservation and Research at the Denver Zoological Foundation, Brian accepted a position to develop conservation and education programs at the Wind River Foundation. His main research interest concerns the role of highly interactive species (keystones) in regulating ecosystem processes and how to improve protection for those species when designing reserves. He has published 100 scientific articles, seven books, and has

been on the board of five conservation organizations. He has helped start two protected areas, one of which is Rio Mora NWR. In 2009 he was given the Denver Zoo's Annual Conservation Award.

Susan Morgan studied Southwest archaeology and holds degrees in English and environmental studies. In 1967 she began as Director of Education for The Wilderness Society where she worked for over ten years and has subsequently worked in education and outreach positions with wilderness, wildlands, and public lands conservation organizations. She is currently president of The Rewilding Institute and senior editor of *Rewilding Earth*.

David Moskowitz works as a biologist, photographer, and outdoor educator. He is the author of two books, *Wildlife of the Pacific Northwest* and *Wolves in the Land of Salmon*. He has contributed to a wide variety of wildlife studies in western North America, focusing on using tracking and other non-invasive methods to study wildlife ecology and promote conservation. David's extensive experience includes training mountaineering instructors for Outward Bound, leading wilderness expeditions throughout the western United States and in Alaska, teaching natural history seminars, and as the lead instructor for wildlife programs at Wilderness Awareness School. He lives in Winthrop, Washington.

Susie O'Keeffe lives at the headwaters of the Sheepscot River in Montville, Maine. She is an independent writer and teacher and a Research Associate at the College of the Atlantic. Susie holds a Master's of Science with distinction in Environmental Management from Oxford University, England. Her writing has appeared in *Spring: A Journal of Archetype and Culture*, *Biological Conservation*, *Phylogeny*, the *Spoon River Poetry Review*, and *The Maine Review*. In addition to writing poetry and teaching, Susie is an organic gardener, and a member of our Rewilding Leadership Counsel. She is on the board of the Northeast Wilderness Trust and Upstream Watch.

David R. Parsons, MS, received his Bachelor of Science degree in Fisheries and Wildlife Biology from Iowa State University and his Master of Science degree in Wildlife

Ecology from Oregon State University. Dave is retired from the U.S. Fish and Wildlife Service where from 1990-1999 he led the USFWS's effort to reintroduce the endangered Mexican gray wolf to the American Southwest.

Dave's interests include the ecology and conservation of large carnivores, protection and conservation of biodiversity, and wildlands conservation at scales that fully support ecological and evolutionary processes. He is the Carnivore Conservation Biologist for The Rewilding Institute, a member of the Science Advisory Board of Project Coyote, a former member and chairman of the Board of Directors of the New Mexico Wilderness Alliance, and a former graduate advisor in the Environmental Studies master's degree program at Prescott College. Dave serves as a science and policy advisor for organizations and coalitions advocating for wolf recovery and landscape-scale conservation in the Southwest.

In 2001, Dave received the New Mexico Chapter of The Wildlife Society's annual "Professional Award." In 2007 at the North American Wolf Conference, Dave received the "Alpha Award" for his "outstanding professional achievement and leadership toward the recovery of Mexican wolves." In 2008 Dave received the "Outstanding Conservation Leadership Award" from the Wilburforce Foundation and the "Mike Seidman Memorial Award" from the Sky Island Alliance for his conservation achievements.

Dave enjoys wildlife viewing, wilderness adventures, and dancing. He lives in Albuquerque, NM, with his wife, Noralyn.

Shelby Perry, Stewardship Director for Northeast Wilderness Trust, received her master's degree from the University of Vermont's field naturalist program, and holds a bachelors in environmental engineering from Rensselaer Polytechnic Institute. A Vermont native, she has also lived in the Adirondacks, California, the Caribbean, Wyoming, and West Africa, where she served a term in the US Peace Corps. In her free time Shelby enjoys hiking far away from trails, swimming in mountain streams, and identifying mysterious plants, fungi, and slime molds.

Stuart Pimm holds the Doris Duke Chair of Conservation at the Nicholas School of the Environment, Duke University. He is also the President of Saving Nature, a

non-profit that raises money for partners in biodiverse-rich countries to reforest degraded habitats and restore connections between isolated forest fragments.

Robert Michael Pyle is a lepidopterist and a professional writer who has published twelve books and hundreds of papers, essays, stories and poems. His acclaimed 1987 book *Wintergreen* describing the devastation caused by unrestrained logging in Washington's Willapa Hills near his adopted home was the winner of the 1987 John Burroughs Medal for Distinguished Nature Writing. His recent books include *Where Bigfoot Walks: Crossing the Dark Divide*, *Wintergreen: Rambles in a Ravaged Land*, and *Sky Time in Gray's River: Living for Keeps in a Forgotten Place*. He won the 2007 National Outdoor Book Award. In 2011, he won the Washington State Book Award in the biography/memoir category for his most recent work *The Mariposa Road: The First Butterfly Big Year*.

David T. Schwartz is the Mary Frances Williams Professor of Humanities, and Professor of Philosophy, at Randolph College in Lynchburg, VA. His scholarly research is in the field of "public philosophy," which applies philosophical methods to the understanding of significant public issues. Before focusing on rewilding, Schwartz wrote books on the ethics of consumer choice (*Consuming Choices: Ethics in a Global Consumer Age*) and government support for the arts (*Art, Education, and the Democratic Commitment*). At Randolph College, his courses include Ethics and Public Life, Bioethics, Environmental Philosophy, and Philosophy of Art. In 2017, Schwartz held the Garrey Carruthers Endowed Chair in Honors at the University of New Mexico, where he taught a course on rewilding.

Chris Spatz, inspired by Dave Foreman announcing the birth of Earth First! on *The Today Show* in the early '80s, procured a copy of *Eco Defense* and began his peripatetic pursuits as an eco-gadfly. Yanking surveying stakes, canvassing for Greenpeace in Boston, performing with Trenton, NJ's Klark Kent eco-street theater troupe, directing the Gunks' Climbers Coalition, and advocating for puma recovery as president of the Cougar Rewilding Foundation were some of his ventures. He lives and writes from the Shawangunks in southern New York State.

Janice St. Marie paints and draws representational landscapes. She is based in Santa Fe, New Mexico and in addition to being an acclaimed artist, has a successful career in graphic design. She lives in the woods with her husband, Joe, Bella the dog, and Chica the cat.

“The drama of sky and earth, light and shadow entrances me. Living in New Mexico has provided me with an abundance of beautiful destinations for landscape painting. Returning to the same location allows me to explore the many variations of form and rhythms that the scene has to offer. I combine my love of travel with my love of art and have been fortunate to paint in Spain, Italy, Ireland, and Sri Lanka, among other places. I paint *en plein air* as well as in the studio, with pen and ink, watercolor, pencil, and acrylic, but I have always loved pastels and they are my primary medium.”

Janice is a member of the Pastel Society of America, the Plein Air Painters of New Mexico, and a Signature Member of the Pastel Society of New Mexico. She is represented in the Abiquiu Inn, Abiquiu, and Cerrillos Station, Cerrillos, New Mexico.

Andrew Thoms grew up in rural upstate New York State. After studying Environmental Sciences at SUNY Plattsburgh, he worked for ten years in Latin America as an environmental specialist in international development projects. Most of his projects focused on the interface between the sustainable use of natural resources and the conservation of tropical biodiversity. One of his favorite jobs was developing and integrating new techniques for cultivating coffee in an environmentally sustainable way on a Guatemalan coffee farm that he managed for a few years. Andrew received a Master's degree in Conservation Biology and Sustainable Development at the University of Wisconsin where he concentrated his studies on conservation and economics. Andrew enjoys being outdoors hunting, birdwatching, fishing, and exploring.

Katie Tozier, of KIT West Designs, grew up north of Yosemite National Park in California, where her parents taught her to canoe, camp, and explore the outdoors. Throughout her youth, Katie's family visited National Parks in the Western US and Canada,

motivating her to pursue her Bachelor's of Science in Environmental Science and Management from UC Davis. During her summers home from college, Katie worked for the US Forest Service on the Stanislaus National Forest. Afterward, she went on to earn her Master's in Education focused on Environmental Education from Western Washington University and the North Cascades Institute. Her time in the northwest taught her to slow down and appreciate our intricate and personal connections to the natural world. Katie has fond memories of working seasonally in North Cascades and Mesa Verde National Parks as an Interpreter. Since 2013 she has enjoyed working in Grand Teton National Park as an Educator, Interpreter, and now Secretary to the Superintendent's Office. Despite the overwhelming challenges posed by global climate change, Katie finds hope in the power of environmental education and intends to help foster positive environmental stewardship and responsible resource use in the years to come. Currently, Katie enjoys watercoloring, watching good movies, and living in Wilson, WY with her partner, Colby.

Sophi Veltrop is the Outreach Coordinator for the Northeast Wilderness Trust. She comes to NWT with a background in land conservation, communications, and outdoor and environmental education. She received her B.S. in Environmental Science in 2013, and has since worked at the Vermont Land Trust, Yestermorrow Design/Build School, and Earthwalk Vermont, where she now serves on the Board of Directors. Sophi is committed to helping create a world where all species have the chance to survive, thrive, and evolve. Outside of the work week, she can be found roaming forests and rivers, tending an ever-expanding garden, and cultivating community and creative practice.

Kevin Webb is currently pursuing a master's degree in Sustainability Science at Columbia University in New York City. A recent transplant, Kevin grew up in the San Francisco Bay Area, where he worked as an early-stage software investor for the better part of a decade. Kevin's interests include natural history, biology, comedy, making things, and spending as much time as possible with his dog Chewie.

Saul Weisberg is executive director and co-founder of North Cascades Institute. Saul is an ecologist, naturalist, and writer who has explored the mountains and rivers of the Pacific Northwest for more than 30 years. Saul worked throughout the Northwest as a field biologist, fire lookout, commercial fisherman and National Park Service climbing ranger before starting the Institute in 1986. He authored *From the Mountains to the Sea, North Cascades: The Story behind the Scenery*, *Teaching for Wilderness*, and *Living with Mountains*. Saul serves on the boards of directors of the Association of Nature Center Administrators, the Natural History Network, and the Environmental Education Association of Washington. He is adjunct faculty at Huxley College of the Environment at Western Washington University. Saul and his family live near the shores of the Salish Sea in Bellingham, Washington.

Christopher R. Wilson is a conservation scientist, wildlife ecologist, and president of Conservation Ecology LLC. Since the late 1990s, Chris has led biological inventories and conservation planning efforts for private and corporate landowners, land conservancies, and philanthropists around the country, and has participated in hundreds of conservation easement land protection projects. Before founding Conservation Ecology LLC, Chris served as the first Conservation Biologist for North American Land Trust, Director of Stewardship and Science for Sweet Water Trust (a wildlands grant-making philanthropy working in northern New England), Director of Conservation Science for the Santa Lucia Conservancy (Carmel, CA), and Director of Conservation Science for wildlands philanthropist Tim Sweeney. Chris holds a

B.A.&Sc in Conservation Biology and Wildlife Ecology from Evergreen State College and an M.Sc in Biology from Appalachian State University. He is author of the book *Documenting and Protecting Biodiversity on Land Trust Projects: an introduction and practical guide*, published by the Land Trust Alliance.

Brendan Wiltse is a conservation and nature photographer based in New York's Adirondack Park. His work focuses on connecting people to wild places with the intention of building enthusiasm for supporting wildlands conservation. Brendan is also the Vice President of The Waterman Fund which is dedicated to preserving the spirit of wildness in the Northeast. He holds a Ph.D. in biology from Queen's University and is the Science & Stewardship Director for the Ausable River Association. Brendan's academic focus is on understanding the effects of road salt and climate change on Adirondack lakes and conserving wild brook trout populations.

George Wuerthner is an ecologist, former river ranger for the Alaska BLM and backcountry ranger in the Gates of the Arctic NP in Alaska. He has visited more than 400 designated Wilderness Areas and approximately 200 National Park units. A prolific author, he has published 38 books including such titles as *California Wilderness Areas*, *Alaska Mountain Ranges*, *Nevada Mountain Ranges*, *Montana's Magnificent Wilderness*, *Forever Wild: The Adirondacks*, *Welfare Ranching-the subsidized destruction of the American West*, *Yellowstone: A Visitor's Companion*, *Protecting the Wild: Parks and Wilderness—Foundation for Conservation*, and *Wildfire: A Century of Failed Forest Policy*.

ABOUT THE REWILDING INSTITUTE AND *REWILDING EARTH*

The Rewilding Institute (TRI) is a wild bunch of fiercely dedicated conservation activists and scientists who promote and employ strategies to protect, restore, and reconnect wild places and creatures at all scales, across North America and beyond. *Rewilding Earth* is our online publication, and our annual print anthology is comprised of many of its best articles and art.

Rewilding Earth is quickly growing into the publication of record for rewilding projects far and wide, and will soon include a Rewilding Directory, briefly describing and giving contact information for hundreds of projects around the world. We are volunteer-led and reader-supported, so cannot pay for articles or art, but we welcome contributions, literary, artistic, and financial. We especially want to share species recovery and wildways protection success stories and lessons therefrom.

Along with our publications, The Rewilding Institute has several focal on-ground campaigns. These initiatives we help lead (as outlined in parts of this book), even while lending our expertise—soon largely through our nascent Rewilding Leadership Council—to Continental Wildways and species recovery efforts farther afield.

Lobo Recovery – Our Carnivore Conservation Biologist Dave Parsons oversaw the original reintroduction of Mexican wolves into the wilds of southern New Mexico and Arizona as a biologist with the US Fish & Wildlife Service. Dave now leads TRI's advocacy and education work on behalf of Mexican wolves, in partnership with other members of the Mexican Wolf Coalition. Dave Parsons also serves as advisor to Project Coyote; and we assist that small but mighty group in its efforts to end persecution of predators and ban wildlife-killing contests. We also join efforts with Western Wildlife Conservancy and other good groups to reform state wildlife governance.

Mogollon Wildway – Critical to the long-term prosperity of Lobos and other wide-ranging animals of the Southwest is better protection of the wildlife corridor linking the Gila wildlands complex in southwest New Mexico with the Grand Canyon wildlands complex in northern Arizona. We advocate for the Mogollon Wildway in part by scouting and working with conservation and trail partners to chart a Lobo National Scenic Trail, to popularize the wildlife corridor. Together with groups like New Mexico Wilderness Coalition, Wildlands Network, and Wild Arizona, we push for stronger protections of National Forests and other public lands in Mogollon Wildway.

Puma Recovery for Eastern Wildways – Using ecological, ethical, health, and aesthetic arguments, we promote restoration of the missing top carnivores of the East, including puma and gray and red wolves. Currently, we focus on the puma, or cougar, in concert with Cougar Rewilding Foundation and other carnivore advocacy groups, because its absence means unnaturally high deer numbers and widespread over-browsing of eastern deciduous forests and its reintroduction ought to be achievable in the near term. Many relatively wild parts of the Southeast Coastal Plain, Appalachians, and Adirondacks have good habitat and abundant prey for pumas, but many biologists think it unlikely that pumas will recolonize the East in functional numbers any time soon and that active reintroduction needs to be considered. As with wolves in the West, puma recovery in the East will depend upon building strong public support and reforming state wildlife governance.

Adirondack Wildways – TRI is part of the Eastern Wildway Network formed by Wildlands Network (and informed by Dave Foreman's book *Rewilding North America* and John Davis's book *Big, Wild, and Connected: Scouting an Eastern Wildway from Florida to Quebec*). We

pay extra attention to areas we've explored extensively, particularly within New York's great Adirondack Park and habitat connections to surrounding wildlands. Most especially, we work with Northeast Wilderness Trust, Champlain Area Trails, Adirondack Land Trust, Eddy Foundation, and other partners to protect Split Rock Wildway, linking Lake Champlain and its valley with the Adirondack High Peaks. In Split Rock Wildway, we will soon explore with The American Chestnut Foundation the potential for planting disease-resistant American Chestnuts in old fields, as well as native oaks and hickories and other food-rich species that may thrive in a warming climate and may help keep forests resilient in a century of climate chaos. We also work for the Algonquin Park (Ontario) to Adirondack Park wildway, with the A2A collaborative. For the larger Eastern Wildways effort, part of our contribution will be promoting efforts to restore American eel and other diadromous fish populations.

Population – Society cannot avert the overarching crisis of our time—extinction—or the related climate crisis without addressing the fundamental driver of biodiversity loss and greenhouse gas accumulation: too many people

consuming too many resources. TRI acknowledges that we humans are billions too many already; and we support compassionate, fair, and effective means of achieving population reduction to ecologically sustainable numbers. We believe that supporting small families, education and empowerment of girls and women, and providing universal access to safe family planning methods, ought to be high priorities for all conservation, environmental, social justice, and peace groups.

Needless to say, we welcome your support for this work of restoring a wild Earth.

Donations can be made online (www.rewilding.org) or checks mailed to:

The Rewilding Institute
P.O. Box 13768
Albuquerque, NM 87192

If you'd like to write an article, please contact John Davis at hemlockrockconservation@gmail.com or Susan Morgan at susancoyote@icloud.com. If you'd like to do a podcast with us, please contact Jack Humphrey at jdh358@gmail.com.

SPONSORS

The generous support of *Rewilding Earth's* donor foundations, corporations, and individuals underpins our growing success in running a vibrant online publication (rewilding.org), and we are again showcasing some of our most notable articles and art in this anthology. We would like to thank this wild bunch of conservation leaders and to briefly single out for praise several sponsors helping to

make possible this second print edition of *Rewilding Earth*. We encourage you to support these truly green businesses. Please contact us about becoming a *Rewilding Earth* sponsor via our website or you can send mail to:

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Increasingly we find ourselves living in an artificial world. A world where ecosystem processes are compromised, and biodiversity is marginalized and commodified. Biohabitats believes that nature, in its wildest form, provides the blueprint for conserving, restoring, and regenerating the full expression of biological diversity and ecosystem functions necessary for survival.

Biohabitats applies the science of ecology to restore ecosystems, conserve habitat, and regenerate the natural systems that sustain all life on Earth. They do this through assessment, research, planning, design, engineering, and construction. Since the firm's early days improving the ecosystems and watershed of the Chesapeake Bay,

Biohabitats has grown to serve communities all over the world, helping them to protect wildlife, conserve water, enhance biodiversity, link the natural world with the built environment, and plan for the future in ways that enhance ecology and resilience. Behind their work is the intention to respect Earth's ecological limit, heal ecological processes, and catalyze mutually beneficial relationships among the land and all forms of life.

A purpose-driven company that believes in the power of business to be a force for the greater good, Biohabitats is a certified B Corporation®, member of 1% for the Planet, and recipient of the JUST™ label. Learn more at biohabitats.com and find them on **@Biohabitats** on LinkedIn, Twitter, Facebook, and Instagram.



ESSEX EDITIONS

Essex Editions is an independent press located on the Adirondack shores of Lake Champlain.

Part artisanal publisher and part transmedia consultancy, Essex Editions collaborates with authors, artists, and activists who believe that storytelling should be innovative, provocative, culturally enriching, and ecologically responsible.

Learn more at essexeditions.com.

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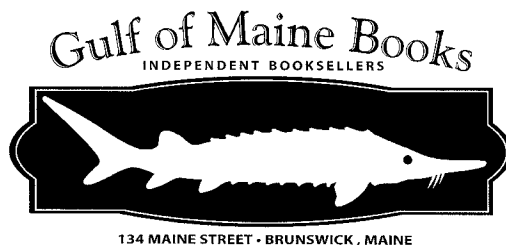
foundation EARTH

Rethinking society from the ground up!

Foundation Earth is a national, non-profit, public interest advocacy organization founded in 2011. Our focus includes: economic models, technology, biospheric education, and earth jurisprudence. We call for a rethink of society from the ground up. We envision more self-reliant communities embedded in a continental network of bioregional economies. Time is not on our side. A rapid shift from an industrial society that ignores nature's

carrying capacity limits and irresponsibly pollutes (cheater economics) to a True Cost Economy will require examining the dimensions of a deeply resilient economy, arguing for it, and providing advisory services to social movements concerning systems change. Our mission is to bring an earth-centered "True Cost Economy" into reality.

Learn more at fdnearth.org and find them @**FoundationEarth** on Facebook and Twitter.



Gulf of Maine Books is an independent bookstore in Brunswick, Maine, founded in 1979 by Beth Leonard and Gary Lawless and still going strong! Considered a downtown staple that brings together book lovers and readers young and old, where people gather to find a good book to read and to connect with friends and community members. They feature publishing parties, book signings, and readings and aspire to be a bookstore that is a part of their literate and engaged community.

Leonard and Lawless know what they like and who their customers are. Regular Gulf of Maine customers are generally interested in literary fiction, sustainable living,

wild Nature, organic farming, and poetry. The store has always kept sizable sections devoted to women's studies, environmental topics, Maine books, LGBTQ books, and indigenous literature, while its poetry section is unrivaled in Maine. Lawless is to thank for that; as a poet and publisher himself, he made a commitment early on to carry small-press books.

Located at 134 Maine St, Brunswick, ME 04011, Gulf of Maine Books is open Monday through Saturday from 9:30 to 5:30.

Phone: 207-729-5083.

Email address: gulfofmainebooks@gmail.com.



Since 1999, Kahtoola has been creating reliable gear that makes the outdoors more accessible and rewarding. Based in Flagstaff, AZ, and deeply inspired by the wonders of the Colorado Plateau, Kahtoola values the importance of public lands and advocates for their protection and preservation, not only for future generations of people but also for the wildlife that lives on them.

In September 2019, Kahtoola helped local nonprofit Grand Canyon Trust receive \$50,000 in grant funding from

the Conservation Alliance. The funding will aid collaborative efforts lead by Native American tribes in the fight to make permanent a standing 20-year ban on uranium mining, as well as combat dam proposals, mega resort development, and the many threats facing Grand Canyon.

Learn more at kahtoola.com and find them **@Kahtoola** on Facebook, Twitter, LinkedIn, and Instagram.

patagonia®

Patagonia is an outdoor apparel company based in Ventura, California. Since 1973, activism has been at the heart of the company's work by supporting efforts to defend our air, land and water around the globe. Through a self-imposed Earth tax, 1% for the Planet, Patagonia has

funded thousands of environmental nonprofits and can count contributions of more than \$100 million in grants and in-kind donations to date to local organizations.

Learn more at patagonia.com and find them @Patagonia on Facebook, Twitter, LinkedIn, and Instagram.

Rewilding is restoring natural processes and species, then stepping back so that nature can express its own will. In essence, rewilding means giving the land back to wildlife and wildlife back to the land.

Recalling the late great *Wild Earth* journal, this provocative anthology showcases the most notable original articles and art published by *Rewilding Earth* (rewilding.org) in 2019. *Rewilding Earth* is an inspiring, informative, and user-friendly manual for how to protect and restore wild places and their residents.



John Davis



Susan Morgan



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