

Kingfisher Journey- Marina Richie

I am the author of *Halcyon Journey: In Search of the Belted Kingfisher*-Winner of 2024 John Burroughs Medal & 2022 National Outdoor Book Award. Join an immersive journey of bi-monthly nature blogs.

CLIMATE CHANGE, CONSERVATION, FORESTS, NATURE, PHILOSOPHY

Simplicity and Complexity: Thoughts on Protecting our Forests



Date: January 31, 2022 Author: Marina Richie □ 7 Comments —

“The complexity of things – the things within things – just seems to be endless. I mean nothing is easy, nothing is simple.”– Alice Munro

“Our life is frittered away by detail. Simplify, simplify.”–Henry David Thoreau

I’m holding two concepts in each hand, feeling the weight of each –Simplicity and Complexity. Imagine if each were a stone. When I close my fingers over Simplicity, I’m holding the perfect skipping rock–no sharp edges, a perfect round oval. Complexity? The stone’s surfaces are pocked, cracked, creviced, and sharp. I think it’s time to carry actual stones in my pockets. I now have two candidate pebbles beside me as I write.

While I can rub Simplicity between thumb and forefingers and feel anxiety ebb away, Complexity can be jarring in contrast. But then, I realize, there’s so much more to feel, to notice, and to be curious about in rough surfaces.



The appeal of Simplicity—the smooth pebble to slip in our pocket—our worry stone to rub for comfort

I'm contemplating Simplicity and Complexity after engaging with a friend over the subject of how we address forest wildfires in the West. We've become increasingly distressed by the apparent Simplicity solution, which calls for massive "thinning" and logging across western forests as the simplistic answer to keeping people safe from wildfires as more people live close to the wildland urban interface and climate change accelerates with accompanying high temperatures, drought, and mega-fires.

Those who advocate this approach make it sound –simple. All we have to do to "tame" the raging fires is to get rid of thickets, tangles and what foresters call "overgrown," or "suppressed" stands of timber. The problem? We suppressed wildfires for a century, so forests are out or whack, and it's our job to "fix" them with one remedy—thin the trees so they are widely spaced. Cut more trees down. Then, wildfires will drop down and behave like docile pets, not like wild animals—unpredictable and terrifying.

But now enter Complexity. For thousands of years, our forests have evolved in the spirit of all that is dynamic, varied, and even unpredictable. Wildfires shaped and sculpted the lands—fires of all intensities—some severe and stand-replacing, others with mixed or low severities. The kinds of trees matter. Topography matters. Elevation matters. Aspect does too—north or south facing. Weather and climate? Most definitely. Microclimates too. Generalities don't exist. Ambiguity reigns.

The intervals between fires may be a few years or several hundred years. Traditional Ecological Knowledge teaches us the ways tribes applied fire to the land in ways that honored the role and the gifts of what the land provides, from huckleberries to deer and fish. The first peoples have long honored Complexity and Simplicity (the true kind) as part of another word to guide us—Reciprocity.



Wenaha-Tucannon Wilderness—I experienced firsthand nature’s renewal and the ways of wildfire sculpting the land in an April 2016 backpack trip. Complexity!

Because of Complexity, we have biological diversity, which in turn creates a resilience. Scientists have made astounding headway in understanding the interweavings, from the role of mycorrhizal fungi networking below the soils to the interplay of woodpeckers, beetles, wildflowers and pollinators above ground. As Alice Munro quipped, “The complexity of things—the things within things—just seems to be endless.”

But we are faced with a simple truth. Our burning of fossil fuels has overloaded our atmosphere with carbon dioxide. The result? We are living in an era of accelerating warming, exacerbated by our destruction of the natural systems—the very ones naturally removing and storing carbon—from salt marshes to forests, especially the centuries-old forests that store the most carbon of all. The climate emergency requires transformational thinking about how we “manage” our forests.



The delicacy and complexity of a forest understory—this in the Lostine Canyon of the Wallowas

It's time to listen to the ecologists, to the scientists who study wildland fires and forest ecosystems and "embrace complexity," which happens to be the partial title of one of the science papers I read today, this one from the U.S. Forest Service in 2016: *Progress in Wilderness Fire Science: Embracing Complexity*. The authors, Carol Miller and Gregory Aplet, show the significance of our protected Wilderness areas in understanding the "complexity of wildland fire."

The more sophisticated wildland fire science becomes, the more complexity is revealed, they point out. Fire has many different effects at every scale. Complexity is not an impediment, but the key to making more informed management decisions. The authors make an intriguing conclusion. Rather than "feeling bewildered" by the physical complexity of fire, "we might instead embrace the lessons of the first 50 years of wilderness fire: the imprecision of wilderness fire yields precisely the heterogeneity that is essential to ecosystem resilience."

Resilience is the key to withstanding accelerating climate change and increased fire activity, even as we also must go forward with drastically cutting our emissions of fossil fuels and both changing policies on building in the wildland urban interface and assuring the existing homes and properties are "firewise".

Returning to my two stones of Simplicity and Complexity, I'm valuing the role of each when it comes to how we approach wildfires and forests in this era of climate change. There's much to be said for the adage of Occam's razor—the answer requiring the fewest assumptions is usually correct, or the most likely solution is the simplest one.

Going forward with massive thinning and logging requires equally massive assumptions that fly in the face of all we know about nature's resilience, which relies on diversity, not uniformity. In other words, it's not the simple solution after all. And—cutting down forests ignores the immense significance of our carbon-storing trees as powerful allies in the race to keep the planet from heating past 1.5 degrees.

The actual simple answer is right in front of us in the form of a significant science paper published in the journal *Nature* in December 2021, authored by these brilliant scientists : Beverly E. Law, Logan T. Berner, Polly C. Buotte, David J. Mildrexler & William J. Ripple. The title alone is forward-looking, hopeful, and exciting: Strategic Forest Reserves can protect biodiversity in the western United States and mitigate climate change. I urge you to read the paper or the summary in Science Daily.

The authors lay out a simple approach to protect the complexity of western forests. The two stones are held in one hand. If we want to protect biodiversity and stem climate change, then preserve the highest priority forests for achieving those goals. Not surprisingly, those forests are primarily on federal lands and include mountain watershed headwaters sheltering our fragile freshwater as snowpack becomes less in a warming climate. They are our remaining roadless areas and wildlife corridors linking wildlands. They are forests with the highest capacity for storing carbon long into the future.

Strategic Forest Preserves would take us one important step closer to meeting international, national, and state biodiversity targets to protect 30% of the land by 2030 and 50% by 2050. Currently only 6% of forestland in the lower 48 states is protected at the highest levels of National Parks, Wilderness areas, and nature reserves. The proposed framework is based on science and pragmatism, and clear proposals on how to establish Strategic Forest Reserves on federal, tribal, state, and private lands that will be financially and economically beneficial—offering alternatives to keep trees standing instead of cutting them down for short-term profit at the expense of future generations.

Returning to the two stones, I feel hope when I rub the rounded skipping stone of Simplicity. Gripping the sharper surfaces of the rough stone of Complexity, I feel fortitude and a reminder of what's at stake—our wild forests.

The dark-eyed juncos flashing their banner tails of white-black-white may be banqueting on our sunflower seed offerings within our winter yard today, but come spring they will fly to the mountain forests to weave their ground nests under the upturned roots of a fallen tree or within the intricacies of wild grasses and ferns of the understory. They've evolved in the presence of wildfires, but not the churning machinery of logging.

I'll end with this reflective poem my friends shared with me recently:

Choices

BY TESS GALLAGHER

I go to the mountain side
of the house to cut saplings,
and clear a view to snow
on the mountain. But when I look up,

saw in hand, I see a nest clutched in
the uppermost branches.
I don't cut that one.
I don't cut the others either.
Suddenly, in every tree,
an unseen nest
where a mountain
would be.





◀ CLIMATE CHANGE ◀ COMPLEXITY ◀ FOREST PROTECTION ◀ SIMPLICITY



Published by Marina Richie

I started this Blog as a wandering naturalist and freelance writer with a passion for kingfishers in particular, birds in general, and wild places. I'm proud to be the author of the award-winning book: Halcyon Journey: In Search of the Belted Kingfisher--winner of the 2024 John Burroughs medal for distinguished natural history writing. View all posts by Marina Richie

7 thoughts on “Simplicity and Complexity: Thoughts on Protecting our Forests”

Add Comment

1. **Robin Coen, Owner Good Bear Ranch Mountain Retreat** says:

January 31, 2022 at 8:46 am [Edit](#)

Marina, Lovely blog this morning. Robin

[Reply](#)

2. **Anonymous** says:

January 31, 2022 at 9:04 am Edit

Beautiful writing, Marina. This subject is always on my mind these days – simplicity and complexity.

Reply

3. **kenmiraclephotography says:**

January 31, 2022 at 9:15 am Edit

“Wildfires shaped and sculpted the lands—fires of all intensities—some severe and stand-replacing, others with mixed or low severities. The kinds of trees matter. Topography matters. Elevation matters. Aspect does too—north or south facing. Weather and climate? Most definitely. Microclimates too. Generalities don’t exist. Ambiguity reigns.”

Ambiguity and Equilibrium are strange bedfellows 😊

Reply

4. **Paul Alaback says:**

January 31, 2022 at 1:27 pm Edit

Another fantastic essay! Most of my career I have promoted the idea that biodiversity and conservation is all about complexity — spatially, biologically, the physical environment, history, disturbance, and how people change things. Even-spaced thinning is imposing a rigid spatial pattern on natural systems that are anything but even or uniform. At the same time there are key factors that we know are the ultimate drivers of ecosystem structure, of biodiversity, and ecosystem function, you might call this looking at it more simplistically. You have captured this dilemma between complexity and simplicity so well! Perfect timing too. Now there is a lot of money from the Federal Government from the infrastructure act to embark on a massive logging and thinning campaign across the West. Here is hoping those that participate in this effort will heed your wise words!

Reply

5. **Gail Sabbadini says:**

January 31, 2022 at 1:38 pm Edit

Marina, This is absolutely wonderful! I love how you gave us familiar visuals of simplicity and complexity. All of us have carried stones in our pockets. You made the examples of each in the forest so clear and always the references for further understanding. You are the best. When I ebb, you flow. Gail ❤️

On Mon, Jan 31, 2022 at 8:31 AM Kingfisher Journey- Marina Richie wrote:

> Marina Richie posted: " "The complexity of things – the things within > things – just seems to be endless. I mean nothing is easy, nothing is > simple." – Alice Munro "Our life is frittered away by detail. Simplify, > simplify." – Henry David Thoreau I'm holding two concepts in " >

Reply

6. **heyannis says:**

January 31, 2022 at 2:41 pm Edit

Hi Marina ~

Loved this post and the two quotes you began with. You, as always, gave me something to think about. For example, “Complexity is not an impediment, but the key to making more informed management decisions.”

One thing I know for me, at this stage in my life, I’m bemoaning the fact that what seems the smallest thing to accomplish is no longer simple. But it IS true recent complexities arising have led me to ask more and different questions and make decisions based on what I learned.

Thank you for another well-written and stimulating post.

Hugs, xoA ❤️

Reply

7. **laurapritchett says:**

February 1, 2022 at 2:14 pm Edit

This is great! Have you thought about submitting to Writers on the Range? Have I already asked you that?

For the wild, Laura

Director, MFA in Nature Writing, Western Colorado University: <https://western.edu/program/nature-writing/>

Author of five novels and two nonfiction books: <http://www.laurapritchett.com>

Columnist: The Colorado Sun <https://coloradosun.com/author/laura-pritchett/> and Writers on the Range: <https://writersontherange.org/columns/>

Fiction Editor: High Desert Journal <https://www.highdesertjournal.org/>

Reply

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