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Title:

Comments: Dear forest stewards,

It sickens me to see how much damage your Foothills Landscape Project intends to inflict on 157,000 acres of our Chattahoochee National Forest, a place where my husband and I love to walk. Your broad proposal (as opposed to site-specific proposals which the National Environmental Policy Act of 1970 requires) includes the logging of 60,000 acres of forest, extensive prescribed burning of 50,000 acres, applications of herbicides on almost half the area, rerouting of over 110 miles of trails, and building logging roads in roadless areas.

It also pains me that you've rejected many of the concerns and suggestions offered by Sierra Club and other environmental groups.

Please do our forests and yourselves a service by reading *The Hidden Life Of Trees* (2016) by Peter Wohlleben, if even just the first 25 pages.

This is from the Foreword to the book: "But the most astonishing thing about trees is how social they are. The trees in a forest care for each other, sometimes even going so far as to nourish the stump of a felled tree for centuries after it was cut down by feeding it sugars and other nutrients, and so keeping it alive. Only some stumps are thus nourished. Perhaps they are the parents of the trees that make up the forest of today. A tree's most important means of staying connected to other trees is a "wood wide web" of soil fungi that connects vegetation in an intimate network that allows the sharing of an enormous amount of information and goods. Scientific research aimed at understanding the astonishing abilities of this partnership between fungi and plant has only just begun.

"The reason trees share food and communicate is that they need each other. It takes a forest to create a microclimate suitable for tree growth and sustenance."

This is from *Friendships*, the first chapter: "But why are trees such social beings? Why do they share food with their own species and sometimes even go so far as to nourish their competitors? The reasons are the same as for human communities: there are advantages to working together. A tree is not a forest. On its own, a tree cannot establish a consistent local climate. It is at the mercy of wind and weather. But together, many trees create an ecosystem that moderates extremes of heat and cold, stores a great deal of water, and generates a great deal of humidity. And in this protected environment, trees can live to be very old. To get to this point, the community must remain intact no matter what. If every tree were looking out only for itself, then quite a few of them would never reach old age. Regular fatalities would result in many large gaps in the tree canopy, would make it easier for storms to get inside the forest and uproot more trees. The heat of summer would reach the forest floor and dry it out. Every tree would suffer."

And this is from *Note From A Forest Scientist* at the end of the book: "In the early 1990s, when searching for clues to the remarkable fertility of these Pacific forests, we unearthed a constellation of fungi linking manifold tree species. The mycelial web, as we later discovered, was integral to the life of the forest...."

"My own search for this web in my home forest began as a quest to understand why weeding paper birches from clear-cut plantations went hand-in-hand with the decline of planted Douglas firs. In the rows of saplings, I would often see clusters of firs suffering from the loss of their birch neighbors. Yes, trees decline and die naturally-gracefully, beautifully, generously-as an essential part of the irrepressible life cycle of the forest but this pattern of premature death had been concerning me for some time..."

"With the web uncovered, the intricacies of the below-ground alliance still remained a mystery to me until I started my doctoral research in 1992. Paper birches, with their lush leaves and gossamer bark, seemed to be feeding the soil and helping their coniferous neighbors. But how? In pulling back the forest floor using microscopic and genetic tools, I discovered that the vast belowground mycelial network was a bustling community of mycorrhizal fungal species. These fungi are mutualistic. They connect the trees with the soil in a market exchange of carbon and nutrients and link the roots of paper birches and Douglas firs in a busy, cooperative Internet. When the interwoven birches and firs were spiked with stable and radioactive isotopes, I could see, using mass spectrometers and scintillation counters, carbon being transmitted back and forth between the trees, like neurotransmitters firing in our own neural networks. The trees were communicating through the web! I was staggered to discover that Douglas firs were receiving more photosynthetic carbon from paper birches than they were transmitting, especially when the firs were in the shade of their leafy neighbors. This helped explain the synergy of the pair's relationship. The birches, it turns out, were spurring the growth of the firs, like carers in human social networks. Looking further, we discovered that the exchange between the two tree species was dynamic: each took different turns as "mother," depending on the season. And so, they forged their duality into a oneness, making a forest. This discovery was published by Nature in 1997 and called the "wood wide web." ...

"Peter highlights these groundbreaking discoveries in his engaging narrative *The Hidden Life Of Trees*. He describes the peculiar traits of the gentle, sessile creatures - the braiding of roots, shyness of crowns, wrinkling of tree skin, convergence of stem- rivers -- in a manner that elicits an aha! moment with each chapter. His insights give new twists on our own observations, making us think more deeply about the inner workings of trees and forests." -Dr. Suzanne Simard, 2016

Please learn from the trees and protect them, rather than disrupt and attack them. We need the trees. They're so vitally important in capturing carbon from the atmosphere. And they need us to let them be, except in emergencies. And, besides, the Chattahoochee National Forest needs no landscaping.

Thank you for considering this.  
Laurie Findlay