

# The Songs of Trees: Stories from Nature's Great Connectors

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David Haskell, the author of *The Forest Unseen* that I reviewed in 2015, is fascinated by connections. Trees, he tells us, are embodied in a network, a network that includes humans. All life, he argues, is a network. Nature is not “separate and apart from humans.” We are part of the song of life, even if many of our current actions seem intent on destroying the natural world. Haskell asks us to listen with him to the trees. Trees are great connectors. They have much to teach us.

*The Songs of Trees* is organized into three parts. The first part describes trees that seem quite apart from people, but in fact are intertwined. The second part focuses on ancient trees, including several in Colorado, like the fossilized redwoods in Florissant. The third group of trees live in cities and other areas dominated by humans but continue to survive even when they are horribly threatened.

The trees featured in Part 1 are the Ceibo of the Ecuadoran rain forest, the Balsam Fir of the northern woods, the Sabal Palm of the Atlantic coast, and the Green Ash, now endangered by the Emerald Ash Borer. The Ceiba pentandra is a giant tree, some having trunks three meters across and stretching hundreds of meters high, higher than any other tree in the rain forest. The Ceibo is home to a myriad of plants, animals, and insects. Climbing into the Ceibo crown, Haskell enters a world with abundant species, all counting on the host tree to survive. But the Ceibo is itself threatened by Ecuador's reliance on oil exports.

The Ceibo is emblematic for Haskell. An indigenous Shuar woman healer and teacher explains that every tree is a living person, and no tree lives alone. The loss of the Ceibo means a loss for the entire indigenous community; it means the loss of the song of the trees.

Haskell visits the Balsam Fir thickets in Ontario, Canada. He finds Pine Siskins, Pygmy Nuthatches, and Black-capped Chickadees feeding on fir seeds. By dispersing the seeds, the birds help the firs thrive. We learn that the fir remembers, storing information that will be useful in the future. The trees communicate with the fungi below ground. They sniff the air for predators. They are part of a complex network and a sea of interrelationships. But their environment is warming fast, threatening to burn the trees and turn them into a carbon source that will increase the rate of warming.

 cover of book *The Songs of Trees*

Throughout *The Songs of Trees* Haskell makes great leaps of focus. He associates trees with other plant life, with insects, with animals, with humans. He tells about successes and dangers which threaten not only the trees but all interconnected nature. At the close of Part 1, he considers Japanese traditional paper making, using the bark of the mitsumata tree. Paper from trees is sacred, holding the records of humans, surviving far longer than our electronic screens.

In Part 2 we discover the Hazel trees of Scotland, as well as our own familiar Ponderosa Pines. An archaeological dig in Scotland revealed that Mesolithic people relied on hazel wood and hazelnuts, the dominate vegetation ten thousand years earlier. Birds and mammals dispersed the hazelnuts, allowing the trees to recolonize the land after the ice melted and become the dominant European tree for thousands of years. After the climate warmed, their remains began to fuel the coal industry. With coal now depleted and a strong move toward renewable energy, wood burning has become increasingly important—in the form of wood pellets. Unfortunately, Europe has little wood of its own. The pellets come from the southeastern United States, threatening our native forests and releasing increased carbon dioxide when the trees are cut and burned.

As you can see, Haskell ranges wide in his analysis of the stories told by trees. From Scotland, he takes us to Florissant Colorado in search of the history of redwoods and ponderosa pines. He awakes to a Williamson's Sapsucker, whose pecking releases the vanilla smell of the pine. The resins that produce the odor protect the trees against most insects. Unfortunately, the odor also attracts the pine beetles.

Haskell likes to listen to trees. He attaches an ultrasonic sensor to a ponderosa twig and watches the graph it produces on his computer. He finds vigorous ultrasonic activity when the twig is dry. It's quiet when the twig is filled with water and the pores are open to the sunlight, the nutrient source for the tree. The sounds are also evidence of the tree's distress. Lack of water can weaken or kill a tree by starvation. But the ponderosa fights back by conserving its water.

At Florissant Fossil Beds National Monument, Haskell finds the petrified remains of ancient redwoods. They resulted from the eruption of a volcano, the Guffey, that once towered over the Florissant valley when it was much warmer and wetter 34 million years ago.

In *The Songs of Trees*, Haskell is a challenging writer. He moves from descriptions and scientific analysis of the trees into thoughts about the impact of humans on the environment. Haskell is searching for an ethical way for humans to interact with the natural world. He moves from mathematics to ravens to bacterium in an instant, pulling us with him to consider our relationship with the world.

Haskell returns in his narrative to trees. He tells us that they "inhabit a reality alien to our own experience of the world." But they are masters of connection with their environments. He explains, "Because they are not mobile, to thrive they must know their particular locus on

the Earth far better than any wandering animal. Trees are the Platos of biology. Through their Dialogues, they are the best-placed creatures of all to make aesthetic and ethical judgments about beauty and good in the world.”

In this work, Haskell is tough on the reader. He demands that we pay attention to the nuances he leads us through. Maples become violins. In Part 3, cottonwoods take us through the history of Denver and Cherry Creek, not always felicitous, sometimes violent. As a reader, you’ll learn a new, and perhaps not so pleasant, way of looking at the South Platte.

One of the last trees in *The Songs of Trees* is the olive, in particular one growing in a tiny space next to the Damascus Gate in Jerusalem. It draws water from deep beneath the street, from a hidden aqueduct built by the Romans. Visiting the olive groves, Haskell finds them unimaginably changed as a result of drip irrigation. But the irrigation is only available to Israeli farmers. The Palestinian farmers must rely on rain, now increasingly rare. The olive trees, for Haskell, symbolize the political separation. Records of olive-tree pollen show times of plentiful rainfall and times of severe drought. In the worst droughts, we learn, the pollen fell on sand not water at the Dead Sea. That is likely to happen again as the environment warms.

Haskell’s final tree is the Japanese White Pine, a tree that is used to create bonsai. The White Pine bonsai that Haskell describes is one that survived the Hiroshima atomic blast and now lives in the U.S. National Arboretum, a gift from the Japanese government. He tells us that the bonsai illustrates the interrelationship of humans and trees. The curator at the Arboretum explains how caring for the bonsai affects him: “It’s less about me, much more about the tree and the work of the people who came before. This affects the rest of my life. I’m more tolerant, understanding.”

*The Songs of Trees* is a challenging work of science and the imagination. It’s well worth reading and reading again.

*The Songs of Trees: Stories from Nature’s Great Connectors*

David George Haskell

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