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Two Good Books Journey to the Inner Lives of Plants

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For the past century or more, scientists have understood that trees, plants, and soil microbes organize themselves into communities. In recent years, increasingly sophisticated research has delivered paradigm-shifting insights into the interdependent world of leaves, stems, twigs, and, especially, roots. Now, two recent authors give us the chance to join them on their journeys of discovery about the inner lives of plants.

"Plants are not like us," writes Hope Jahren in Lab Girl, (Alfred A. Knopf, 2016). That may seem simple, but coming from Jahren, it is hard-won knowledge, gained through 20 years of devotion to understanding plants' "deep otherness." She's an award-winning geobiologist, the kind of scientist who tunnels through permafrost to understand the remains of 50-million-year-old forests that grew when the Arctic was not "arctic."

Lab Girl is about much more than plants, however. Jahren weaves the threads of her personal and professional life into a story that is ultimately about her determination and inner direction. It's about her journey in science, the lean years when she deals with the perpetual funding shortage that plagues many researchers, and academic politics. It's also about a little girl who finds it natural to help her dad, a physics teacher, but unnatural to be like other kids, especially girls. It's about her evolution as a woman scientist in a formerly male-dominated profession. It's also about her one-of-a-kind lab mate Bill Hagopian, with whom she has an intellectual partnership and quirky friendship that takes them dumpster diving for items to build her first lab, driving all night to attend conferences 3,000 miles away, and finally permanently settled at the University of Hawaii.

It's about romance and marriage, childbirth and motherhood. It's about managing mental illness.

With so many threads, the narrative sometimes seemed disconnected, but Jahren's narrative style kept me reading. She is introspective but never self-absorbed. Her voice is sometimes lyrical and, at other times, she plays for irony. She is never self-aggrandizing, nor judgmental of the people and situations that placed barriers in her way.

Lab Girl achieved bestseller status in several nonfiction categories, from science and environment to biography. When you're finished reading, though, I'd suggest offering it to any young woman or man who aspires to a career in the life sciences. The Junior Library Guild rates it "NH," appropriate for 9th grade and older.

Then, for a journey directly into the root zone, try The Hidden Life of Trees: What They Feel, How They Communicate (Greystone Books, 2016) by German forester Peter Wohlleben.

"When I began my professional career as a forester," he writes, "I knew as much about the hidden life of trees as a butcher knows about the emotional life of animals."

One day more than 20 years ago he observed what seemed like mossy rocks in a forest—a chance encounter, he later learned, with an ancient tree stump. He determined that the stump, perhaps 400 years old, was alive—yet it had no leaves, so it could not photosynthesize. The tree's neighbors, he discovered, kept it alive by feeding it through root connections and fungal pathways. Thus began Wohlleben's awakening.

Trees, it turns out, are "social" beings. Roots don't simply wander around underground but spread out with determination and strategy. They can recognize the roots of other species as well as their own. They can send distress signals in several ways.

Which begs a timely question: What happens when we remove key individuals in a tree community? A lot more, it turns out, than we've ever understood before.

The Hidden Life of Trees has 36 short chapters in which Wohlleben shares the tree-and-forest wisdom he's earned through practice, research, and observation. He takes a playful tone, and it's easy to imagine that despite all his reverence for science, the forest he manages may also be enchanted.

For those involved with community planting or forest management, the lessons have practical application. For the rest of us, we'll simply never look at a tree or forest the same way again.

Both books are rich with surprising new information about the plant kingdom, written with passion and generous insight into the authors' personal journeys. I highly recommend them both.

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