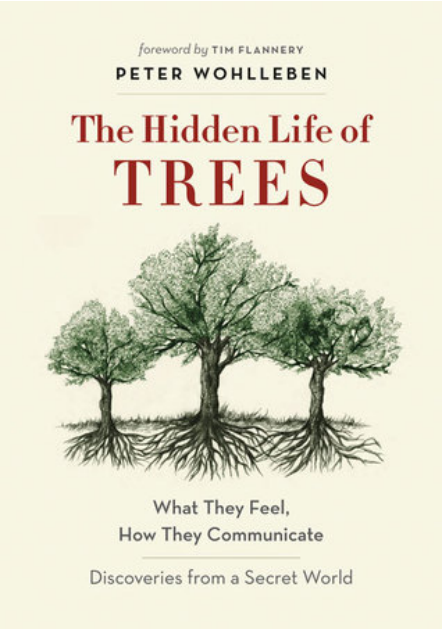

The Hidden Life of Trees: What They Feel, How They Communicate – Discoveries from a Secret World

Peter Wohlleben , Tim Flannery (Foreword) , Jane Billinghurst (Translator) , Suzanne Simard

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In *The Hidden Life of Trees*, Peter Wohlleben shares his deep love of woods and forests and explains the amazing processes of life, death, and regeneration he has observed in the woodland and the amazing scientific processes behind the wonders of which we are blissfully unaware. Much like human families, tree parents live together with their children, communicate with them, and support them as they grow, sharing nutrients with those who are sick or struggling and creating an ecosystem that mitigates the impact of extremes of heat and cold for the whole group. As a result of such interactions, trees in a family or community are protected and can live to be very old. In contrast, solitary trees, like street kids, have a tough time of it and in most cases die much earlier than those in a group.

Drawing on groundbreaking new discoveries, Wohlleben presents the science behind the secret and previously unknown life of trees and their communication abilities; he describes how these discoveries have informed his own practices in the forest around him. As he says, a happy forest is a healthy forest, and he believes that eco-friendly practices not only are economically sustainable but also benefit the health of our planet and the mental and physical health of all who live on Earth.

The Hidden Life of Trees: What They Feel, How They Communicate – Discoveries from a Secret World Details

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From Reader Review The Hidden Life of Trees: What They Feel, How They Communicate – Discoveries from a Secret World for online ebook

Andrew says

Tolkien was right. Trees live in the slooooooow lane (imagine healing a skin wound over decades) but what lives they lead! They have incredible social networks, share food, rear children, and care for the ill. Yes, there's some anthropomorphization here, but still...

When evolution has figured out how to tell time and talk to one another, you wish the trees could also talk to us and tell their stories. Peter Wohlleben has come pretty close to speaking for them and I will never look at trees the same again.

Or Ents.

Laure says

A must read! An absolute gem of a book. I might be biaised as I am what people would call a 'tree hugger'. I am sorry I did not come across this book earlier in my life. As someone who last studied ecosystems in the 80's as part of the 'normal' school curriculum, this was truly enlightening.
I would recommend buying this book for all budding teenage scientists/biologists out there (and older ones of course). It is a very easy read and packed with invaluable information about our forests.

Eleanor says

I was disappointed by this book, perhaps unfairly. My main problem was with the language, and specifically the frequent use of slang, which detracted from what was supposed to be a readable but serious look at how trees in forests interact. I assume that this is down to the translator rather than the author, but would need to have that confirmed by someone who has read the German original. Words like "critters", "buddies" (referring to trees growing near one another) and "little guys" were intensely irritating.

The worst of the lot came on page 216, where he was writing about ash dieback fungus, which had entered Europe from Asia and is destroying the ash trees in Europe. "Its fruiting bodies look harmless, even rather cute. They are just teeny-weeny mushrooms that grow on the stalks of fallen leaves." I wondered if each teeny-weeny mushroom had an itsy-bitsy elf sitting on it.

My other disappointment was that this book was not generally about trees, but about trees in forests in Europe, and to a lesser extent, in North America. This is understandable because Peter Wohlleben manages a forest in Germany, but the title of the book suggests that he was writing about all trees. I am none the wiser about how, say, Australian trees, or African trees, might work together. I hope someone may do some work

on this and write a readable but unslangy book about it.

Olaf Gütte says

Ein sehr aufschlussreiches Sachbuch, dass selbst mir als Forstwirt noch viele neue Erkenntnisse geliefert hat. Lesenswert für jeden, da die Sprache nicht zwischen Fachbegriffen untergeht, zahlreiche "wow" Effekte.

Tony says

My father's father was a legendary grafter of trees. So I was told. He died a few years before I sprouted so I never knew him. But my father, who had a sense of wonder at the way things worked, learned the art; and so, I was able to see a peach tree that had one branch full of plums; and he grafted a white dogwood to a pink one. No reason. Just to show he could. This technique, like many mechanical things, was not passed on to the next generation.

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Dr. Suzanne Simard, who helped discover the maternal instincts in trees, describes mother trees as dominant trees widely linked to other trees in the forest through their fungal-root connections. These trees pass their legacy on to the next generation and exert their influence in the upbringing of the youngsters. "My" small beech trees, which have by now been waiting for at least eighty years, are standing under the mother trees that are about two hundred years old – the equivalent of forty-year-olds in human terms. The stunted trees can probably expect another two hundred years of twiddling their thumbs before it is finally their turn. The wait time is, however, made bearable. Their mothers are in contact with them through their root systems, and they pass along sugar and other nutrients. You might even say they are nursing their babies.

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My father, the occasional grafter, decided to get a mimosa tree. This was odd because I grew up in a place not known for its ornamentals. The houses were just a few feet apart and backyards tended to be repositories for rusting junk, chained dogs and old tires. It was not a sweet-smelling place. But our backyard had a mimosa tree as a centerpiece. Which was pretty cool for a pre-adolescent boy, because you could do this:

https://www.youtube.com/watch?v=zDzNe...

Eventually, the mimosa got sick and died. A life lesson. It was removed. It was then my father decided he would like to grow figs.

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Mimosas are tropical creeping herbs. They make particularly good research subjects, because it is easy to get them a bit riled up and they are easier to study in the laboratory than trees are. When they are touched, they close their feathery little leaves to protect themselves. Gagliano designed an experiment where individual drops of water fell on the plants' foliage at regular intervals. At first, the anxious leaves closed immediately, but after a while, the little plants learned there was no danger of damage from the water

droplets. After that, the leaves remained open despite the drops. Even more surprising for Gagliano was the fact that the mimosas could remember and apply their lesson weeks later, even without further tests.

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I love trees, but I can not cut a 7-iron:

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A marine chemist at the Hokkaido University discovered that leaves falling into streams and rivers leach acids into the ocean that stimulate the growth of plankton, the first and most important building block in the food chain. More fish because of the forest? The researcher encouraged the planting of more trees in coastal areas, which did, in fact, lead to higher yields for fisheries and oyster growers.

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Once upon a time, when I still worked, some no-goodnik lumber company decided to play fast and loose with the language in some ancient deeds and snuck onto a portion of the Allegheny National Forest – or as much as you can sneak while operating very large excavating machinery – and helped themselves to a heaping harvest of very tall, very old timber. It became my responsibility to see what could be done about that. This was very different from my usual assignments, and I've always liked different. The deeds went back to William Penn and were a twisted tale of courses and metes and bounds.

As part of the investigation, I was invited into the forest. It was early May. The guy from the Department of Natural Resources said it was an active time for timber rattlesnakes so be sure to wear high boots. You know, having fun with city slickers. But, oh, my boots are well-traveled and the investigator who came with me was a seasoned hunter. There was one more person to complete our foursome: a forester. It is the forester that I want to talk about.

The forester looked very much like the character actor, Richard Farnsworth:

Only with a beaten-up old ball cap from some feed company on his head. Kindly, yet not smiling, his face was worn and his eyes – HIS EYES – were sad, yet hopeful. Which is hard to do. He would not know how to lie.

We trudged through the woods to where the loss and damage was. For you can't remove large trees from the forest with heavy equipment without nicking other trees. The forester showed us the slashes to the trunks and then, explaining how the injury would eventually kill the tree, he circled the circumference with his arms. He was a different kind of tree hugger.

The tour done, we repaired to a truck stop for lunch. Big-boy, buffet style. We piled our plates except for the forester, who took only a vegetable or two, citing a troublesome stomach, something chronic. The other two fellows were talkers, and they were trying to top each other with one wild anecdote after the other. The forester said nothing, but was looking at me, I guess trying to get my measure.

The other two guys went back to the buffet, I thought maybe to set some kind of record. The forester and I continued to sit across the table from one another. He kept looking at me even though we didn’t speak. It dawned on me that he was from the forest and I was not. But surely there is a common ground.

And after many minutes, his eyes never leaving mine, he swallowed, and said, “You full-leaf down there yet?” And I looked him square and replied, “Everything but the oaks.” And he paused, ever so slightly, and then gave me just the slightest hint of a nod. And it was as if I had passed some test, some test that meant more than all the tests academia and suits and skirts could ever devise.

And I will remember that conversation until the day I die.

Bam says

You will never view trees the same way again after reading this book. Peter Wohlleben is a German conservationist and forester who manages a forest in the Eifel Mountains and has observed the slow-lane growth habits of his beloved trees, the secret underground social network that they share, the diseases and other dangers that threaten their survival--and most importantly, how crucial it is for the survival of all of us to allow forests to reach old-growth status again.

I read this book as a complement to Annie Proulx's new book Barkskins which is a work of historical fiction about the decimation of the beautiful old-growth forests in the New World.

#2016-aty-reading challenge-week-50: a book originally written in a language other than English. This book was originally published in German in 2015 as Das geheime Leben der Baume and was translated to English by Jane Billinghurst.

#book-vipers-book-hunter: SECRET

The Serendipity Aegis ~ ?Misericordia? ?????? ✺✲❤❣ says

Q: Trees are very social beings, and they help each other out. (c)

If even 10% of this is true, we live in a mode diverse world than we ever imagined.

Wood-wide-webs, allowing social interation between trees.
Trees in friendship, feeding, hugging and warning each other.
Trees having sense of taste and smell, talking to each other via sound waves of particular wavelengths.
Tree lottery.... Forest etiquette... Only a true lover of all things natural could have come up with such poetic topics to discuss!

Q:
Planted forests ... behave more like street kids. (c)
Q:
A tree can only be as strong as the forest that surrounds it (c)
Q:

The trees might be screaming out a dire warning to their colleagues that water levels are running low. (c)
Q:
I have learned from this just how powerful a community of trees can be (c)

`Ashlula` Ayse says

I am confused about this one. It started quite interestingly but gradually lost its joyous nature. After the 4th chapter it turned into a heavy, didactic plant biology/botany book. I felt like a freshman without enthusiasm, and decided to use the book as a reference.

In the first three sections one can feel the writer`s enthusiasm for the trees. I liked the part `Final Road to Modernity` where he shares his view on the order in nature and the phylogenetic tree. He emphasizes how related we all are, coming from the same ancestor.

If you have a special interest in learning the lineages, evolution and biology of trees you may enjoy this more.

David says

Peter Wohlleben has written a wonderful little book about trees. He is a forester; he manages a forest in Germany. He must do a wonderful job, as he has amazing insights into the life of trees and tree society.

Did I say society? Yes, trees communicate with each other, nurture their young, and aid the ill when disease or distress strikes. Does this sound unlikely? Well, it sounded a bit over-the-top to me, until I started reading this book. Forests are superorganisms that exchange nutrients through inter-connected root systems. They are a bit analogous to ant colonies. Wohlleben cites evidence of a 400 year-old beech tree that was actually being kept alive by neighboring beech trees!

Acacia trees warn other nearby trees of giraffes who are feeding on them. As a result, the pre-warned trees pump toxic substances into their leaves within a period of a few minutes, causing the giraffes to leave the area. The giraffes walked 100 yards away, bypassing nearby trees before continuing to feed. They chewed on trees that were either oblivious to the warnings, or they walked upwind. These warnings are sent using electrical impulses that travel 1/3rd of an inch per second. These impulses are propagated along filaments of fungi.

When trees sense insects eating their leaves, the trees can classify their saliva. Then they release pheromones that summon specific insect predators. So, it seems that trees actually have a sense of taste.

I learned how older, mature trees nurture their young. Their enormous canopies shut out most of the light from the shorter trees, preventing the young ones from growing too fast. This enables the young trees to grow strong, dense wood that will eventually, in a hundred or two hundred years, to grow big and strong themselves. However, in forests that are overly managed, some of the bigger trees are culled, allowing the smaller trees to grow too fast. Then they never reach their potential height as they age.

I learned why conifer trees grow needles and are "evergreen", while deciduous trees shed their leaves each

fall. It would almost seem like conifers are "smart", as they do not waste energy growing new leaves each spring. But there is a reason for all this. Evergreens grow needles that are shed only once every few years. Each fall the needles develop a waxy covering that impedes evaporation over the winter. The needles have very little surface area for catching the wind and snow. Deciduous leaves, however, do catch the wind, and are a handicap during storms and snowfalls. They are dropped in the fall to prevent the trees from bending and breaking in a big wind-storm or under a heavy layer of snow.

This book was originally written in German and translated into English; the translation is excellent. The book is not only informative, but is fun to read. Wohlleben makes analogies between trees and animals, and these analogies help shed insight into the slow, ancient life of trees. The book is not written in a humorous tone; it is written in a wonderful down-to-earth style. Although Wohlleben is not a scientist, he discusses the latest research and it is a joy to learn about his points of view.

Cheri says

"We read in fairy tales of trees with human faces, trees that can talk, and sometimes walk. This enchanted forest is the kind of place, I feel sure, that Peter Wohlleben inhabits. His deep understanding of the lives of trees, reached through decades of careful observation and study, reveals a world so astonishing that if you read his book, I believe that forests will become magical places for you, too."

"The electrical impulses that pass through the roots of trees, for example, move at the slow rate of one third of an inch per second."

Translated from the German version, which was published in 2015, Wohlleben shares with the reader the "secrets" that foresters have known for a while. Trees live in, have, a relationship with the trees around them beyond the fact that they are trees in the same location. They retain memories that help them through the seasons (not to catalog the wrongs done to them), they have a sense of taste, smell, 'hearing' … just not exactly like we do.

Many years ago, the first time I went to Maui, when I was in Lahaina I was fascinated with the Banyan trees, their interconnected root system, and their unique appearance. When I first heard about this book, I thought of those trees and I knew I wanted to read it.

This isn't overly heavy in the scientific aspect of trees, some sections flow with a lightness and ease that most people can easily relate to, and other sections get into a deeper peek, but overall this is a relatively undemanding read. If anything, it does require that you set aside everything you've ever believed about trees.

The truth lies somewhere between chopping down a forest and believing that doesn't hurt anything and that an aggravated apple tree can throw apples at you if you pick apples without politely asking, first.

"When you know that trees experience pain and have memories and that tree parents live together with their children, then you can no longer just chop them down and disrupt their lives with large machines."

One would hope that would be true.

Trees have memories, they have a sense of taste, and smell, they can feel, and through means other than eyes and ears, they can see and hear.

”The saliva of each species is different, and trees can math the saliva to the insect. Indeed, the match can be so precise that trees can release pheromones that summon specific beneficial predators.”

”For if they can identify saliva, they must also have a sense of taste.”

There is a bit of humour in this, and knowledge to be gained - this is research-based information, but it’s also not a book about the science of the study of trees, it’s more along the lines of someone who is so enthusiastic about what he’s telling you that sometimes, every once in a while, he might digress a bit, and lose some readers for a few minutes. Overall, I found this to be fascinating, if not exactly everyone’s cup of tea.

I kinda loved this. I learned a lot that is easily retainable, and know where to look for the answers. I loved the author’s gushingly boyish tree-crush-ing, but really, who can blame him for his enthusiasm? This was a charmingly enchanting read which benefitted by Wohlleben’s charisma and enthusiasm for the topic.

"We lived on a street where the tall elm shade
Was as green as the grass and as cool as a blade
That you held in your teeth as we lay on our backs
Staring up at the blue and the blue stared back"
-- Only a Dream / lyrics & song Mary Chapin Carpenter

The house I grew up in had woods to one side as far as you could see, and woods behind as far as you could see. A few houses on our street, more streets in our neighborhood, with one lake and trees that surrounded the neighborhood. When I’ve been back there, it all pretty much looks the same. The tree that I climbed so high that I couldn’t get down by myself still stands there, the initials of almost every boy or girl carved into it with a + and another set of initials is now so high up on the tree I can’t see it.

"I used to believe we were just like those trees
We'd grown just as tall and as proud as we pleased
With our feet on the ground and our arms in the breeze
Under a sheltering sky"

"Twirl me about, and twirl me around
Let me grow dizzy and fall to the ground
And when I look up at you looking down,
Say it was only a dream"
-- Only a Dream / lyrics & song Mary Chapin Carpenter

Many thanks, once again, to the Public Library system, and the many Librarians that manage, organize and keep it running, for the loan of this book!

Chrissie says

I do recommend reading this book, even though I have given it only two stars! Remember two stars is a book that **is** OK! Read it for the new and interesting information it contains.

The book reports up-to-date information about the complex, symbiotic networks underlying communication between trees. It stresses that trees should be seen not as separate entities but rather as parts of a community where individuals are aware of their neighbors, relate to them, communicate with them and help each other survive. Absorbing information about particular tree species, plants, fungi, insects and birds is provided. Anyone who appreciates nature, anyone who quite simply enjoys a walk in the woods, will find tidbits of interest.

So what was wrong?

The writing all too often lacks clarity. Ecological and natural processes were not clearly explained. I would follow an argument and not understand why a particular conclusion was drawn. I would see other alternative explanations. One example is the discussion of the respective amounts of CO^2 stored by young respective old trees. We are told that plants of the same species living in the same soil and under the same conditions do not act in the same manner. An example is given of three oaks that dropped their leaves at different times. What we are told is that this was an "individual choice, a question of character." Ah huh……..no more explanation than that?! Later in the book it **is** said that plants of the same species often have widely different genetic composition. (It is interesting to note that the variation is much more limited in animals.) Anyhow, this must be the explanation but this is just my guess. It should have been explained more clearly.

Conclusions drawn should more often have been backed up with reference to particular scientific studies.

The writing reeks of anthropomorphic expressions. This became extremely annoying. It made the entire content of the book feel childish. Yet this is <u>not</u> a book for children; previous knowledge of plant processes is a prerequisite. I will give some examples. Beech trees are referred to as Beech & Co., Spruce as Spruce & Co. Perhaps this is amusing once, but not ten times. "Ouch" is interspersed frequently - when discussing a lesion in bark, the loss of a tree limb, a hit by lightning or any damage done to a tree. The upper branches of trees are called "the executive offices". "Foolish trees" are said to have not obeyed the "tree etiquette manual". A volcanic eruption is "the shuffling of cards in the game of life." We read sentences such as, "If we think back to tree kindergarten……" Maybe it is me, but this type of writing switches the book from being a scientific book of merit to a book of farce. This is a shame. Let me repeat, the book has valuable content.

The content is poorly organized. Similar information is repeated in different chapters. The chapters are exceedingly short with ambiguous titles. Here are examples of titles: Let There Be Light, Street Kids, Burnout andDestination North. On completing a chapter you are left wondering what exactly had been the point of the chapter! What was its message? While there is definitely interesting information it is hard to absorb due to it being poorly organized.

Beside the main themes, what miscellaneous information caught my attention? How woodpeckers make their homes in trees, working on several at the same time and in conjunction with fungi. The parasitic plant mistletoe can kill a tree, but moss and algae aren't usually dangerous. It is normal that you don't hear lots of birdsong in forests. The value of and conditions found in "old growth forests" were interesting, as well as how long it takes to establish such forests and how they differ from commercial forests. Leaving fallen trees is important - they make it harder for herbivore to consume undergrowth and they are home to a multitude of beneficial insects. This is just a smattering of assorted information. Each person reading the book will find different points of interest. I don't regret reading the book, but its organization, and the author's way of expressing himself could certainly have been improved.

The audiobook narration by Mike Grady was clear and easy to follow. The German words are accurately

pronounced.

The author is a German forestry manager, writing on ecological themes. The book closes with a note by Susanne Simard. She is a forest ecologist. She has worked more than thirty years in the field and is currently doing scientific studies such as those discussed in the book. She is at the University of British Colombia in Canada. Her research confirms most of Wohlleben's observations about the communication among trees.

Cathrine ?? says

3.75★ If a tree falls in the forest there are other trees listening.

The first time I fell hard for a tree was in the Sequoia National Forest standing at the base of General Sherman. I was always a treehugger in my head but at that moment I was literally a treehugger. If you've never gazed up at one of the giants you are missing out on one of the earth's wonders.

[I don't know these people but it was wiser to post their picture than mine because it's not legal to step over that barrier and get so up close and personal—though after reading this book I'm wondering how the General felt about it. We're talking a Jack and the Beanstalk moment here.]

Back in the hippie days I knew people who talked to their plants, played classical music for them, and claimed there was a silent scream while trimming them back. Apparently these same compassionate people suffered no remorse when they smoked them, nor did I, but I digress so let's move on.
So I couldn't resist reading this after watching a fascinating PBS program called What Plants Talk About. Who knew there really is a **"wood wide web"** in which trees, shrubs, and grasses exchange information. My hippie friends apparently did—it wasn't the THC after all!
I'm wondering if I should re-shelve Shel Silverstein's book to the non-fiction section.

I know, I've told you nothing about the book because of these flashbacks but isn't it wonderful when books mess with your head? If you love the natural world there really is some compelling information within and it was easy to digest a few chapters at a time. The sometimes anthropomorphic language may bother the non-treehuggers but it's understandable that the author did his best to make it accessible for those who might be botany-challenged. The writing style is sometimes repetitive and simplistic and much of this is pure ecology. He champions old growth forests (dear to my heart) and throws in interesting tidbits like scientific discovery of the improvement in women's blood pressure, lung capacity, and arterial elasticity while walking in the forest versus excursions into town. His book claimed I would never see trees the same again and that is truth. But even before I read this I've always talked to mine when they blossom and later caress the globes of fruit ripening in the sun. I tell them how beautiful they are and darned if they don't give me peaches, nectarines, and plums to die for every year. I also voted to legalize marijuana which no longer interests me because of W.I.N.E. Those grapes are a gift and harvesting doesn't hurt the vines, i.e., no silent screams—win(e) win(e).

Francisco says

You can read this for the science or, like me, for how it helped me see. We are always in need of books that part the curtains of the familiar, the stuff we walk around and take for granted. In this case trees, all around

us, the beings who help us breathe. It turns out they compete and cooperate and communicate, they form alliances and have processes that we are hard call to name so we must resort to words like grief and love. If you are non-scientific like me, or even if you are, you will be thankful for the seeing. You will see better. It will start with trees - you'll notice the wrinkles in their bark, the wounds made by woodpeckers who cleansed them of insects but not without pain. You will notice how a pear tree curved sideways to give more light to the cherry tree, which a clumsy gardener planted too close together. What you will see is life, all around you. You will be startled with how much life there is and maybe even be amazed at your own spark, a tiny but real part of the whole. I also liked entering into a different time consciousness- the time that trees inhabit. If you were an oak and not in danger of being cut down you'd be looking forward to finally being a toddler a hundred years from now, a teenager without parental restraints in a mere two hundred. Each year a miniature life with deaths and births. It is okay to go slow. This year I'll grow a half an inch. But oh, how good it is to feel being alive and to make little more life for others.

Pequete says

O início foi prometedor – o livro começa com a descrição de umas peculiares “pedras” cobertas de musgo, que se vêm a revelar ser afinal restos de cepos de árvores derrubadas há várias centenas de anos e que deveriam, segundo toda a lógica, ter há muito apodrecido e desaparecido em húmus no solo da floresta. A explicação reside num emaranhado de raízes subterrâneas que liga entre si árvores de uma mesma espécie e permite a troca de nutrientes entre elas.

O autor continua a falar de árvores e de florestas, intercalando informação interessante como esta com outra menos interessante. O problema é quando dá largas à imaginação e começa a escrever sobre coisas como a amizade entre árvores, árvores com medo, árvores corajosas, etc.

Fungos e animais também não escapam à antropomorfização, que aceito muito bem (e até gosto) em fábulas e livros de fantasia, mas me dá cabo dos nervos em livros técnicos ou de divulgação, como acho que este pretende ser.

Penso que a ideia talvez seja chegar mais facilmente ao público, só que, na minha opinião, não só se corre o risco de transmitir ideias erradas, como se trata de um esforço perfeitamente desnecessário, porque a natureza já é, por si só, tão fascinante, que, francamente, não precisa destas “ajudas”! Posto isto, estive várias vezes a ponto de desistir do livro, mas lá fui persistindo, por um lado, porque ainda me custa deixar livros a meio, por outro, porque por entre escaravelhos desmotivados e fungos com espírito de conciliação, fui encontrando bastante informação interessante.

Gostei especialmente dos capítulos que mostram o contraste entre uma floresta natural e pouco intervencionada, e uma plantação, os que explicam algumas das razões menos conhecidas de as florestas serem benéficas para a saúde humana, assim como do capítulo sobre as árvores das cidades, ou melhor dizendo, as pobres árvores das cidades... Relembrei o meu gosto de longa data pela flora e comprometi-me comigo própria (mais uma vez - é algo que faço todos os anos mas acabo por nunca cumprir...) a dedicar algum do meu tempo livre a este tema.

Ficam alguns parágrafos que fui copiando (porque o livro não é meu, e portanto estava fora de questão sublinhar):

“Nas florestas plantadas, o facto de a plantação danificar as raízes de forma permanente, mostra que

dificilmente elas se encontram ligadas numa rede, árvores deste tipo comportam-se quase sempre como seres solitários, o que lhes dificulta bastante a vida."

"O ser humano perde com facilidade de vista aquilo que constitui realmente uma idade avançada, já que a silvicultura moderna tem apenas como alvo uma idade máxima de 80 a 120 anos, altura em que as árvores plantadas são cortadas e comercializadas. No entanto, do ponto de vista da natureza, as árvores têm nesta altura apenas a grossura de um lápis e a altura de um homem. As minhas pequenas faias, que já estão à espera à pelo menos 80 anos, encontram-se debaixo de mães com cerca de 200 anos de idade. Calculando em termos humanos, isto corresponderia a uma mãe com 40 anos de idade."

"As florestas de coníferas reduzem consideravelmente a carga de germes na atmosfera, algo que os alérgicos conseguem sentir bastante bem. No entanto, a florestação trouxe também abetos e pinheiros para zonas onde não são de todo nativos, do ponto de vista da natureza. É aí que estas espécies migrantes começam a ter problemas. Em geral, são levados para regiões de menor altitude, secas e quentes demais para coníferas. Como consequência, o ar fica mais poeirento, algo que o leitor pode facilmente observar no verão, se olhar contra a radiante luz solar. E uma vez que abetos e pinheiros estão constantemente ameaçados pela sede, aparecem insetos para atacar essa presa fácil. Perante isso, começam a pairar mensagens odoríferas por entre as copas, em grande quantidade. São as árvores a gritar por socorro e a ativar todo o seu potencial químico de defesa. Tudo isto o caminheiro introduz nos seus pulmões em cada inspiração de ar silvestre. Será possível ao leitor detetar inconscientemente na floresta semelhante estado de alerta? As florestas em perigo são afinal de contas lugares instáveis, não constituindo um habitat adequado para o ser humano. E uma vez que os nossos antepassados da Idade da Pedra andavam sempre à procura de um lugar ideal para se estabelecerem, teria sentido se conseguíssemos compreender intuitivamente o estado do ambiente que nos rodeia. Isso é suportado pela verificação científica de que a pressão arterial de quem passeia pela floresta sobe debaixo de coníferas e, pelo contrário, baixa descontraidamente em zonas de carvalhos. Experimente você mesmo e veja em que tipo de floresta se sente particularmente bem".

Acho que não foi por acaso que enquanto lia este livro, me lembrei várias vezes de passagens d' O Senhor dos Anéis...

E agora que acabei de escrever tudo isto, penso que talvez tenha sido somítica na atribuição das estrelas, por isso vou alterar das duas que dei inicialmente, para três.

João Carlos says

Peter Wohlleben fotografia de Gordon Welters para "The New York Times"

Peter Wohlleben (n. 1964) é um guarda-florestal alemão que trabalha para o município de Hummel, na região de Eifel, sudoeste da Alemanha.
O livro **"A Vida Secreta das Árvores"** é o resultado da actividade e do fascínio que **Peter Wohlleben** tem pela floresta; não, necessariamente, pela silvicultura moderna apenas interessada na produção de madeira e na maximização económica do negócio florestal, mas, fundamentalmente, na silvicultura de protecção, numa gestão florestal ambientalmente comprometida com a especificidade e a importância de cada árvore, originando uma **"(…) floresta mais saudável e porventura até mais feliz (…) mais produtiva, o que por sua vez resulta num aumento das receitas.".** (Pág. 8)
(view spoiler)

Peter Wohlleben introduz ao longo do texto cinquenta e oito notas bibliográficas – que surgem referenciadas no final (mais de metade são em alemão o que no meu caso específico não servem absolutamente para nada ~~– não as contei e sendo o escritor alemão! –~~); mas existem inúmeras referências e conceitos específicos florestais que obrigatoriamente deveriam ter notas de rodapé explicativas. Apenas alguns exemplos: o leitor comum não sabe o que é uma **conífera** ou uma **caducifólia**, o que são **taninos tóxicos** ou o que é a **salicina**, e muitos outros exemplos de que seria fastidioso continuar a referenciar.
A questão da tradução de um livro "técnico" florestal suscita inúmeras interrogações. No caso específico de **"A Vida Secreta das Árvores"** - o que o livro pretende e, que se comprova, com os mais de 350.000 exemplares vendidos é ser objecto de leitura e divulgação para o maior número de pessoas que têm fascínio pela natureza, que valorizam as árvores e as florestas, e que se preocupam com a preservação dos recursos florestais, incluindo, todos os seres vivos, vegetais e animais, que vivem em simbiose num dos mais dinâmicos ecossistemas terrestres – a tradução ou a edição portuguesa é francamente má.
Concluindo, na minha perspectiva de leitor "florestal" **"A Vida Secreta das Árvores"** foi um livro decepcionante. Adorei a temática: as Árvores são seres inteligentes; que sentem e comunicam entre si – através de uma **"wood wide web"**, o que nos conduz à descoberta de um mundo misterioso; mas não gostei da escrita/linguagem e, sobretudo, da abordagem ambígua sobre uma temática tão fascinante.
No entanto, não posso deixar de recomendar a leitura de **"A Vida Secreta das Árvores"** aos leitores "comuns" que sentem admiração e atracção pelas árvores e pelas florestas, porque, efectivamente, **"acontecem coisas espantosas na floresta: árvores que comunicam entre si (enviando sinais elétricos através de uma rede subterrânea de fungos). (…) Árvores que têm sensibilidade, sentimentos e memórias."** - na contracapa da edição portuguesa.
Agora vou ler: o livro de Stefano Mancuso Brilliant Green: The Surprising History and Science of Plant Intelligence e Bernd Heinrich The Trees in My Forest.

"Uma árvore não faz a floresta, não é capaz de criar um clima local equilibrado, é vulnerável ao vento e às condições meteorológicas. Pelo contrário, muitas árvores juntas logram formar um ecossistema, capaz de mitigar o calor e frio extremos, de armazenar toda uma quantidade de água e de produzir ar bastante húmido. É neste tipo de ambiente que as árvores são capazes de viver protegidas e por muitos anos." (Pág. 11)

Paul E. Morph says

This is an absolutely fascinating book. It shows a side to trees that will blow your mind (unless you're a smartypants and know it all already... but I'm pretty sure those people are in the minority).

The only criticism I have of the book is that the author does go off on the pure speculation bus every now and then, leaving the hard science at the station. It wasn't a problem for me as I'm used to reading scientific works and am pretty good at separating the facts from the flights of fancy. Folks who don't read much popular science might assume that everything the author says is fact and end up being slightly misled.

(There's also a note by a 'forest scientist' at the end of the book that I think would have worked much better at the beginning... but that's nitpicking and I'm not docking any stars for that.)

My wife started this one before I did and when I asked her how she was finding it she replied 'I will never look at a tree the same way again'. I laughed at the time but, having now read the book myself, I totally know

what she means...

Margie says

4.5 stars

Have you ever praised or hugged or talked to a tree? If you have, you are communicating with it more than you know. In his short poem, "Trees," for which he became known, Joyce Kilmer expressed his wonder and love for these magnificent beings:

I think that I shall never see
A poem lovely as a tree.

A tree whose hungry mouth is prest
Against the earth's sweet flowing breast;

A tree that looks at God all day,
And lifts her leafy arms to pray;

A tree that may in Summer wear
A nest of robins in her hair;

Upon whose bosom snow has lain;
Who intimately lives with rain.

Poems are made by fools like me,
But only God can make a tree.

The Hidden Life of Trees: What They Feel, How They Communicate . . . expresses Peter Wohlleben's own wonder and love for trees in well-researched, scientific and straightforward prose. Wohlleben is a German forester who set about to educate people about trees - what they mean in our lives, how they affect us, how we affect them, and how they affect each other as families and communities of trees.

Wohlleben's book is packed scientific research and his own observations of the forests that he manages. He reveals, for instance, that until the 1990s no one had ever researched or known that trees actually communicate with one another. The phenomenon became known as the "Wood" Wide Web when it was discovered that trees in forests were connected by their roots and fungi systems through which they could communicate and feed one another. Through this underground connection trees look after each other and even care for and "feed" sick trees in their forest communities.

Acacia trees in Africa were observed to use another method of communication to warn other acacias in the area of impending danger. When giraffes started munching on their foliage, the trees first pumped a bitter tasting substance into their own leaves and then released a scent or gas to warn other acacias of the approaching trouble.

In old growth forests, trees' lives are measured, not in decades, but in centuries. A beech tree can live to be 400 years old. However, that single beech tree which produces "a total of about 1.8 million beechnuts" (p.29)

in its lifetime will produce only one offspring that will become a full-grown tree - a one in a million tree, a precious gem.

This review could go on and on because Wohlleben's book is packed with fascinating information. I read it slowly and when I read it at night, I often fell asleep, even though I hate to admit it! I am a plot-driven, fiction reader, but I highly recommend this book to everyone, especially those who feel a strong connection with nature. It will open your eyes about these magnificent creatures and how they live, communicate with each other and enrich our lives. I am grateful to Peter Wohlleben for sharing his passion, knowledge, research and life's work. And yes, I do tell my trees that I love them, especially my beautiful sycamore.

Matthew Quann says

If you've ever pondered the thought experiment in which a tree falls in an empty forest and the sound of its fall is in limbo, Peter Wohlleben's nonfiction might be for you. Quite simply, the sound would be heard, according to Wohlleben, because trees are able to interpret sound and communicate with one another. Not only that, Wohlleben attributes memory and thought to the stationary beings which most of us have long considered non-sentient. This is a book full of revelations about trees and asks the reader (or in my case, listener) to reevaluate their understanding of the woody sentinels. *The Hidden Life of Trees* is a scientific book that attempts to broaden long held perception and enrich our interactions with forest.

It is also a book that manages to talk about trees for much longer than you would have ever thought possible.

Despite my score, this is a good book. It seems well researched, Wohlleben is obviously interested and excited about his field, and it brought to me knowledge I didn't have prior to listening to it. But...trees just aren't my thing. This brought me back to first year biology classes where a month or more was spent elucidating the inner workings of plants. It was one of those fields, of which there were many more to follow, that was nice to know about, but never piqued my interest like the fields of human physiology, biochemistry, and microbiology.

So, even though I was pleased with some of the knowledge I took from this book, I can't say that I was really gripped by it. As I took another long commute, I found myself easily losing the thread of the narration when Wohlleben waxed lyrical about a particular species of tree. In short, I spent a lot of time bored with this book. When a novel fact was introduced to me, I thought, *Hey, that's kind of neat*, and then drifted back into relative boredom.

But, there's a pretty good chance that another reader would really be into this one! I mean, just because I don't love learning about trees doesn't mean that you won't find a lot to like here. Certainly, when I take a walk in the woods later today I'll be thinking about how trees have a lot more going on than I would have thought a week ago. With that said, Wohlleben posits morale considerations for trees that I wasn't entirely able to buy by the end of the book. So: if you are really interested in learning more about trees, I'd say go for it! If you're more like me, then I'd probably pass on this one.

Thanks to Anne Collini for this recommendation which I appreciate in spite of having not loved the book!

Matthias says

As humans, daft creatures that we are, we are predisposed to look at where *the action* is. Swift movements, loud noises and bright colours capture our attention. Maybe this stems from our primitive instinct for survival, allowing us to spot the dangers darting in our general direction. Or it could be the result of our desire to procreate that can't make us look past flaunted flesh and luscious lips. Whatever the reasons, at some point we have begun to think in terms of foreground and background. The former is where the action is, the latter a necessary formality because the void would be too depressing an environment.

During short lapses of my otherwise well-founded modesty I like to think of myself as something other than an utter idiot. In doing so I tend to refer to my habits of reading, writing, cogitating and looking at backgrounds. It's one of the ways to make scrolling through tedious travel pictures slightly more interesting. If a movie's dialogue doesn't ignite my interest, I find enjoyment in looking at the B-actors located in the background of the scene, pretending to go about their daily business, assuming they will remain unseen unless for when they'll point themselves out to friends and family. My smartphone camera comes with a focus that easily jumps in between the different layers of the hubbub I point it towards, making the scenery rich with potential for anecdote and diminishing the borders between foreground and background to a triviality. As someone who appreciates all that I allowed myself to think I was more than just a casual observer.

A dreamy bubble that is now duly burst. One of the many things that Peter Wohlleben's book has taught me is that a lot of phenomena escape my flittering attention as I skip and skedaddle through life. The trees are such a phenomenon. A majestic backdrop to many of my sweetest memories, yet never given the notice they were due.

Our world is full of magical places. These can be found on the ocean's vigorous waves, on a tranquil mountain top or in a lover's embrace. One other such place is under the canopy of trees. In their mystic shade of earthy green some people reach enlightenment, others find fundamental scientific truths and many discover peace. Troubled heads are cleared as they rest on ancient trunks and laden hearts are lightened by the sound of rustling leaves. Why are we not in constant awe for these beings of wonder that should be worthy of worship?

People now will often mock that notion, hacking and slashing their way to prosperity with no regard for the beings that have been here millions of years. Or to recall the way Treebeard put it very emphatically when talking about Orks:

"*They come with fire. They come with axes. Gnawing, biting, breaking hacking burning. Destroyers and usurpers, curse them!"*

Wohlleben's book **The Hidden Life of Trees** worked the same way for me as the focus changer does for my camera. This book inaugurated a new sensibility that feels purposeful and asks to be deeply understood. The way I looked at the world and the way I looked at my memories had been tainted by a particular and exclusive interest for human affairs. Wohlleben put the splendour of trees in a sharp and welcome focus, opening my eyes as they welled up with remorseful tears. My perspective changed, and now an everyday city scenery has become a concrete concentration camp for trees forced to live in isolation, cut off from their potential and cut down to serve cityscaping needs.

One redeeming factor is of course the knowledge that trees don't feel. How sweetly we sleep in the comfort

of that intuition. Unfortunately, Wohlleben puts some question marks next to that soothing notion.

This author's narration couldn't have been more convincing and captivating and the fact that I automatically read it with David Attenborough's voice in mind can serve to stress that point. The trees become both actors and center stage in this epic tale of survival against all odds. Their struggle for an inner balance as they grow, mend their wounds, spread their roots and branches, drop their leaves, drink the water and capture the sunlight makes for a truly engaging read. The race between a fungus eating its way to the heartwood and a tree growing healthy bark and moist material to stop the enemy in its tracks is more thrilling than a car chase, despite the impression that the timescale on which trees live make such matters less pressing. Yet they are pressing, and a matter of life and death. A tree can spend hundreds of years on its death bed but still serve a purpose, procreate and provide energy for its siblings and offspring. And when reading about this struggle for survival and growth, I could not help but discern a will for life that stirred within these entities.

It's not just the trees that are the protagonists of this book, but also the tiny creatures that live on and around them. I've mentioned the fungi with which they have a love-hate relationship. Trees are also in what one might call a complicated relationship with small rodents, birds and insects, who sometimes help them in the dissemination of their seeds but can also wound them fatally. When caterpillars attack, reinforcements are called in with aromatic signals to deal with them. Ants are running their own brand of livestock farms as they herd aphids for the sugarry residues they leave behind when they feed off the leaves. The book is chock-full of such anecdotes that show us how trees are in fact megacities teeming with life.

The biggest reveal came quite early in this book: trees communicate. As an introvert I didn't find that piece of information especially salient, but it does show that more goes on in the deep forests than a mere survival of the fittest. Trees often work together as a community, protecting and supporting each other, sending each other signals and goods. They use a "wood wide web" of roots and fungal chords that allow the transportation of nutrients from one tree to the other. They produce scents that get picked up by their cousins urging them to put up protective barriers before the enemy arrives.

At the start of this book I had some severe difficulties accepting that the author would bestow certain qualities on trees that they couldn't possibly have, such as the capacity to feel, know, remember and be happy. Even after reading the book I have to admit this sometimes feels like a stretch, but that's really not the message one should remember from this review. The fact of the matter is that we don't know how far the sentience of these beings reaches. The latest scientific observations at least hint at the possibility that this author, which some might consider little more than a romantic treehugger, could be on to something.

Even if trees don't feel like how we do, the realisation that trees are the hands that have been feeding us for many years should at least be a lesson in humility and inspire us to stop gnawing at them. Trees don't only provide us with the oxygen we breathe but serve many other vital purposes enumerated in this book, ranging from biodiversity to inland water supply. It's not just a matter of cutting down old trees and planting new ones, either. Balance is key, and such a balance can only occur on a timescale we can hardly grasp.

The trees that provided the pages for this book are the prophets of their kind, emissaries of a lifeform we've been neglecting. So don't feel guilty about getting a hard copy. Pick one up, go sit under a tree if you can still find one, read it and look up to a new world.

Richard Reese says

As a young lad in Germany, Peter Wohlleben loved nature. He went to forestry school, and became a wood ranger. At this job, he was expected to produce as many high quality saw logs as possible, with maximum efficiency, by any means necessary. His tool kit included heavy machinery and pesticides. This was forest mining, an enterprise that ravaged the forest ecosystem and had no long-term future. He oversaw a plantation of trees lined up in straight rows, evenly spaced. It was a concentration camp for tree people.

Wohlleben is a smart and sensitive man, and over the course of decades he got to know the tree people very well. Eventually, his job became unbearable. Luckily, he made friends in the community of Hümmel, and was given permission to manage their forest in a less destructive manner. There is no more clear-cutting, and logs are removed by horse teams, not machines. In one portion of the forest, old trees are leased as living gravestones, where families can bury the ashes of kin. In this way, the forest generates income without murdering trees.

Wohlleben wrote *The Hidden Life of Trees*, a smash hit in Germany. It will be translated into 19 languages. The book is built on a foundation of reputable science, but it reads like grandpa chatting at fireside. He's a gentle old storyteller explaining the wondrous magic of beautiful forests to befuddled space aliens from a crazy planet named Consume. He teaches readers about the family of life, a subject typically neglected in schools.

Evergreen trees have been around for 170 million years, and trees with leaves are 100 million years old. Until recently, trees lived very well without the assistance of a single professional forest manager. I'm serious! Forests are communities of tree people. Their root systems intermingle, allowing them to send nutrients to their hungry children, and to ailing neighbors. When a Douglas fir is struck by lightning, several of its close neighbors might also die, because of their underground connections. A tribe of tree people can create a beneficial local climate for the community.

Also underground are mycelium, the largest organisms yet discovered. One in Oregon weighs 660 tons, covers 2,000 acres (800 ha), and is 2,400 years old. They are fungi that send threads throughout the forest soil. The threads penetrate and wrap around tree roots. They provide trees with water, nitrogen, and phosphorus, in exchange for sugar and other carbohydrates. They discourage attacks from harmful fungi and bacteria, and they filter out heavy metals.

When a limb breaks off, unwelcome fungal spores arrive minutes later. If the tree can close off the open wound in less than five years, the fungi won't survive. If the wound is too large, the fungi can cause destructive rot, possibly killing the tree. When a gang of badass beetles invades, the tree secretes toxic compounds, and sends warnings to other trees via scent messages, and underground electrical signals. Woodpeckers and friendly beetles attack the troublemakers.

Forests exist in a state of continuous change, but this is hard for us to see, because trees live much slower than we do. They almost appear to be frozen in time. Humans zoom through life like hamsters frantically galloping on treadmill, and we blink out in just a few decades. In Sweden, scientists studied a spruce that appeared to be about 500 years old. They were surprised to learn that it was growing from a root system that was 9,550 years old.

In Switzerland, construction workers uncovered stumps of trees that didn't look very old. Scientists examined them and discovered that they belonged to pines that lived 14,000 years ago. Analyzing the rings of their trunks, they learned that the pines that survived a climate that warmed 42°F, and then cooled about the same amount — in a period of just 30 years! This is the equivalent of our worst-case projections today.

Dinosaurs still exist in the form of birds, winged creatures that can quickly escape from hostile conditions. Trees can't fly, but they can migrate, slowly. When the climate cools, they move south. When it warms, they go north, like they are today — because of global warming, and because they continue to adapt to the end of the last ice age. A strong wind can carry winged seeds a mile. Birds can carry seeds several miles. A beech tree tribe can advance about a quarter mile per year (0.4 km).

Compared to trees, the human genome has little variation. We are like seven-point-something billion Barbie and Ken dolls. Tree genomes are extremely diverse, and this is key for their survival. Some trees are more drought tolerant, others are better with cold or moisture. So change that kills some is less likely to kill all. Wohlleben suspects that his beech forest will survive, as long as forest miners don't wreck its soil or microclimate. (Far more questionable is the future of corn, wheat, and rice, whose genetic diversity has been sharply reduced by the seed sellers of industrial agriculture.)

Trees have amazing adaptations to avoid inbreeding. Winds and bees deliver pollen from distant trees. The ovaries of bird cherry trees reject pollen from male blossoms on the same tree. Willows have separate male trees and female trees. Spruces have male and female blossoms, but they open several days apart.

Boars and deer love to devour acorns and beechnuts. Feasting on nuts allows them to put on fat for the winter. To avoid turning these animals into habitual parasites, nuts are not produced every year. This limits the population of chubby nutters, and ensures that some seeds will survive and germinate. If a beech lives 400 years, it will drop 1.8 million nuts.

On deciduous trees, leaves are solar panels. They unfold in the spring, capture sunlight, and for several months manufacture sugar, cellulose, and other carbohydrates. When the tree can store no more sugar, or when the first hard frost arrives, the solar panels are no longer needed. Their chlorophyll is drained, and will be recycled next spring. Leaves fall to the ground and return to humus. The tree goes into hibernation, spending the winter surviving on stored sugar. Now, with bare branches, the tree is far less vulnerable to damage from strong winds, heavy wet snows, and ice storms.

In addition to rotting leaves, a wild forest also transforms fallen branches and trunks into carbon rich humus. Year after year, the topsoil becomes deeper, healthier, and more fertile. Tree plantations, on the other hand, send the trunks to saw mills. So, every year, tons of precious biomass are shipped away, to planet Consume. This depletes soil fertility, and encourages erosion. Plantation trees are more vulnerable to insects and diseases. Because their root systems never develop normally, the trees are more likely to blow down.

From cover to cover, the book presents fascinating observations. By the end, readers are likely to imagine that undisturbed forests are vastly more intelligent than severely disturbed communities of radicalized consumers. More and more, scientists are muttering and snarling, as the imaginary gulf between the plant and animal worlds fades away. Wohlleben is not a vegetarian, because experience has taught him that plants are no less alive, intelligent, and sacred than animals. It's a wonderful book. I'm serious!