

*Open Letter to the Minister of Environment***DO NOT TEACH A TREE
HOW TO DEVELOP CONES!***Dear Minister!*

Would you believe that internet was invented by trees, not people? When our human Facebooks and FriendsReunited were conceived, their inventors were asking dendrologists and biologists, how it was that the trees, growing far apart, were able to send warning signs of danger and share resources? This happens thanks to strongly developed tree root system and ... spawn, which accelerates transmission of information. Having received a signal to its root, the tree requires around one hour to transfer the information to its top and to respond accordingly. This, of course, is most relevant to the trees of the same species, however, even trees of unrelated species, are kind to one another and they tend not to grow out into their neighbours' spaces. And, if they happen to be incompatible species, perhaps they even mediate and communicate?

Sir, do you know, that single growing city trees, deprived of their families, 'street kids' – as they are called by Peter Wohlleben – require incredible effort to grow and despite this effort, they often are doomed to perish? Trees in forests support one another by exchanging nutrition through their sophisticated network of roots, as mentioned before (they take two sizes of a tree crown). They thus have something of a 'mutual fund support' – when the neighbour is in need, all surrounding trees support it for as long as it is required. This also happens, when the tree is old and sick. City trees can only rely on themselves. Their root system is trimmed from its infancy, saplings are cut down, so when these trees line up city alleys, they are not able to dig deep for nutrition. Their brief existence is so much more precious for this reason.

Would you believe Sir, that trees care and nurture their children as

parent trees inhibit the growth of the children by cutting off nutritional supplies, which by contrast, helps the children survive? The buds from such small seedlings are bitter, therefore avoided by deer and other herbivorous forest animals. When the parent falls, the light streaming through the tree crowns and decay from the parent tree trunk give a signal for accelerated photosynthesis and stimulate rapid growth. This means that the forest nursery, has then completed its task well.

This is all worth an effort, a tree such as beech, which produces at least 30 thousand beechnuts every five years, achieves reproductive maturity at the age of 80-150 years (depending on access to sunlight). Having achieved a maximum age of 400 years, the tree is able to produce fruit at least 60 times in its lifetime and to produce a total of 1 800 000 nuts. From this number exactly one nut will grow to become a mature tree. Similarly, the seeds of poplar, which does not bring up 'children' at her feet, out of the 26 million seeds produced annually and drifting around the world, will produce a single descendant.

Do these numbers appeal to your imagination, Sir? Maybe the fact that trees, however we consider them to be plants and as such, devoid of the nervous system, are able to distinguish flavour. They can single out saliva of a parasite and then quickly and effectively, produce a substance to repeal this particular parasite? Moreover, trees similarly to humans, use their sense of smell. Vaporous substances produced by a tree warn other trees of danger, e.g. a giraffe eating acacia leaves. This is why giraffes don't eat off neighbouring trees as those would have managed to change the taste of their leaves to bitter, so giraffes must eat off the trees which have not yet received



the information by smell. And, you know what, Sir? This is incredible but the trees most probably hear! At least such was behaviour of corn seedlings in laboratory. On hearing 220 hertz cracking sound, the seedlings would turn their root tips in the direction of the sound. They feel, hear one another, warn and protect. They form true networks of social interaction in almost every forest.

This interaction includes insects, birds, forest animals and also us – humans. We need trees. Not only because on average, one tree makes enough oxygen to support 3 people. The life of a tree cannot be recreated in city scenery or in a flowerpot. Trees in flowerpots, when deprived of winter hibernation, usually die in a year. Trees in cities, lead a short and hard life. Foresters who don't understand the lives of the trees, every year plan tree felling sprees, thus deprive trees of their communication network. Trees surround us and other living beings with the web of their interdependencies in comparison with which, the world in the film Avatar is a poor substitute. All of this can be found in a fascinating book by Peter Wohlleben 'The Secret Life of Trees'. The book, which you, Sir will most probably never want to read. Even if you did read it, you'd probably find more important to have a pumpkin carriage ride with the bishop or shoot pheasants whom someone let out flying of the cage straight under the barrel of your gun.

Sir, you may never change yourself, however, we can still change this world by teaching our children how to respect the rights of nature, so that minister of environment elected among them in future, will fight for the life of every tree – our kinsman.