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**The Wood Wide Web**

Research began in 1990’s and the first published study was in Nature Magazine in 1997.

The word mycorrhiza comes from the Greek words for fungus and root. The fungi obtain glucose from the tree during photosythesis and the trees obtain phosphorus and nitrogen that the fungi have acquired from the soil.

For each cubic yard of soil there are dozens of miles of mycorrhizal fungi connecting roots of trees to transmit nutrients (sugars, nitrogen, phosphorus) to aid a diseased tree. This has been demonstrated by injecting radioactive carbon isotopes into the vascular system of one tree and then tracking the flow from tree to tree. Some of the larger, older trees were connected to as many as forty-seven others. The old concept of trees fighting for resources has been replaced by a vision of forest resource redistribution and ecosystems.

Another remarkable fact is that trees can send immune-signaling compounds to one another. “A plant under attack from aphids can indicate to a nearby plant via the network that it should up-regulate its defensive response before the aphids reach it.“

The U.S. Forest Service estimates that a honey fungus 2.5 miles wide in Oregon’s BlueMountains is 1900 to 8650 years old.

Underland by Robert Macfarlane c. 2019

The Hidden Life of Trees by Peter Wohlleben c. 2014