

## Trees in tropical forests practice social distancing to boost biodiversity

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The purple treetops belong to the species *Dipteryx oleifera*. Analysis of the distribution reveals that the distance between the trees is 5.5 times more than expected based on where the seeds are expected to fall. (Image Credit: Christian Ziegler).

Scientists have discovered that in the dense tropical jungles, trees of the same species practice social distancing as a safety measure. The researchers used computer modelling on data collected over a period of 30 years to examine the distribution of trees, and discovered that adult trees in a forest in Panama were three times as distant as other adults from the same species. The particular forest has actually been studied for over a century. The distances between the trees of the same species was found to be in excess of the distance typically travelled by their seeds.

The computational models helped the researchers discover that trees of the same species that stuck together were at a disadvantage. Each of the trees have species specific adversaries, including pathogens, insects and herbivores. These adversaries make room for other species around every tree, boosting the biodiversity of the region and preventing any one species from dominating. The findings can help better explain the large diversity of species supported in tropical forests.

Researcher [Michael Kalyuzhny says](#), “Due to an abundance of available data on this particular forest, we knew the exact location of every tree and also how far seeds travel. We were able to ask: How should the forest look if trees just established where the seeds fell? With our computational models, it turned out that the real forest does not look like this at all – the real trees are much more far apart.” The research sheds light on the complex interactions and adaptations that shape the tropical forest ecosystem, and helps evaluate various competing theories on how tropical forests can maintain their biodiversity.

Source: <https://www.news9live.com/science/trees-in-tropical-forests-practice-social-distancing-to-boost-biodiversity-2240082>