

How does nature maintain tree diversity?

In a time when biodiversity is much threatened by multiple global changes we cannot take the co-existence of many tree and other plant species for granted. But before we engage in hectic, last-minute conservation projects we have to develop a better understanding of how nature maintains diversity so that we can mimic natural processes in our conservation efforts. Based on established ecological theories such as the Janzen-Connell hypothesis and the more recent mingling-size hypothesis we are currently studying the interaction between spatial species mingling and spatial size inequality in very diverse managed and unmanaged Chinese temperate and subtropical ecosystems. For analysing the structure of such woodlands we use the methodology taught in the theme “Individual-based Forest Ecology and Management” of the Silviculture module of the MSc course Forest Ecology and Sustainable Forest Management. The methodology is also detailed in the Springer book “Individual-based Methods in Forest Ecology and Management” by Pommerening and Grabarnik.

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