

‘Dendro Futura’ – The urban forest of tomorrow and the importance of botanical gardens

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Trees are among our best allies in the fight against climate change and biodiversity loss. Although we often think of them in forests, most of our interactions with trees take place in urban environments and in private gardens, where they provide us with shade, heat control, flood avoidance, noise and pollution reduction, beauty, and much more. However, to maintain and increase those manifold benefits we urgently need to rethink tree selection for our parks and gardens, to include those species and provenances most suitable for the environmental conditions and stresses posed by a rapidly changing and unpredictable climate, spreading pests and emerging plant diseases. To create resilience to present and future challenges, where the exact consequences of future scenarios cannot be predicted in advance, a commonly proposed solution is to cultivate a large diversity of trees, i.e., increase tree diversity at many taxonomic levels. Achieving an increased diversity of trees to improve the resilience to future conditions is likely to involve greater use of non-traditional species and unique genetic types of trees. In this presentation an insight in a unique research profile is presented with focus on how to find and evaluate the trees of tomorrow based on travels all over the world to study natural environments matching urban environments and further evaluation of trees for urban challenges in order to create a first-hand guidance finding right tree for right place and function where botanical gardens here plays a key role in this work.