



Biotic and Abiotic Controls on Crown Function, Morphology, and Dynamics

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Deadline for manuscript
submissions:

closed (31 January 2024)

Message from the Guest Editor

The purpose of this Special Issue is to feature papers that deepen our insight into the genetic and environmental factors responsible for overall crown morphology. Genetics determines the overall structure of branches, and how tolerant branches are to shade. The environment consisting of the regional climate, disturbance regime, and atmospheric quality affects the longevity and extension of both branches and foliage. Indirect biotic factors include intercrown abrasion, shade and shelter from conspecific and heterospecific competitors, and water and nutrient diversion by hemiparasites such as mistletoe.

We would like to bring together all types of studies concerning these biotic and abiotic effects on crown morphology. We are especially interested in studies that integrate the consequences of these effects at various levels of organization, such as tree size and form; branch, foliage, and stand dynamics. Both simulations and experimental studies are welcome.

Potential topics include, but are not limited to:

- Branch growth;
- Crown length;
- Functional crown;
- Foliage horizontal and vertical distribution;
- Shade tolerance and branch longevity;
- Branch autonomy.





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