



Artemis is currently a researcher at UMR AMAP – CIRAD, Montpellier, France. Working on plant architecture in ecological and evolutionary perspectives, she is interested in studying the impact of different ecological drivers on shaping the evolution of plant structure in deep time using the combination of the architectural method, phylogenetics and environmental variables.

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ZOOM : <https://umontpellier-fr.zoom.us/j/99069780048>

Resources and disturbances as drivers of the evolution of plant architecture

presented by

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ABSTRACT Plant architecture strongly influences ecological performance, yet its role in plant evolution has not been explored in depth. By testing both phylogenetic and environmental signals, it is possible to separate architectural traits categories: development constraints; convergences; key confluences to an environmental driver. I analysed the evolutionary history of the genus *Euphorbia* and the family Combretaceae, two model clades with both high architectural diversity and a wide environmental range. Several architectures appear to be likely key confluences of architectural innovation under different climates, and show a significant dependency to either light availability, herbivory regime and/or fire frequency. My results provide first insights into how the whole plant architecture evolution has been shaped by resources and disturbances, and identify a potential trade-off between the species evolvability and the functional specialisation.

KEY WORDS China; Research; Collaboration

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