



**PARIS
LODRON
UNIVERSITY
SALZBURG**

Environment and Biodiversity

Guest Lecture

Seminar Series

Environment and Biodiversity

Prof. Mark Chase

Royal Botanic Gardens KEW, London

Host: Univ.-Prof. Dr. Hans Peter Comes

An update on the APG classification of flowering plants and genome size, repetitive elements and chromosome number in *Nicotiana* sect. *Suaveolens*

A brief update on the APG classification will include how the classification will change in response to the now substantial amount of nuclear gene data that have recently become available, which demonstrates that hybridisation has been a major factor in the evolution of the angiosperms. Fortunately, this has minimal effects on the APG classification of families and orders. Then, I will focus on the interactions between chromosome number change, genome size and repetitive sequences during diploidisation in a recent allotetraploid clade, *Nicotiana* sect. *Suaveolentes*. These are the only species of the genus in Australia, and in the six million years since their arrival there they have adapted to live in the arid zone, which covers about 40% of the continent. Although there is no general correlation in angiosperms between genome sizes and chromosome numbers, we detected an unexpected interaction between these when we examined the species/population interface in these species of *Nicotiana*. I will examine the topic of how this interaction might have played a role in their adaptation to the Australian deserts.

Language: Englisch

Friday, June 27, 2 P.M.

NLW-Faculty, Room 421, 2nd floor



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