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Phylogeny and biogeography of Spathelioideae (Rutaceae)

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Curriculum Vitae

Marc S. Appelhans was born on the 7th of July 1980 in Winterberg, Germany. He attended high-school in Winterberg and received his Abitur (A-levels) in 2000. After high-school, he accomplished his civil service at the Sankt Franziskus Hospital in Winterberg.

Marc started his studies in Biology at the Philipps-University in Marburg in September 2001 and started to specialise in Systematic Botany after the Vordiplom (intermediate examination) in 2003. Next to Systematic Botany as a major, he chose Molecular Cell Biology, Plant Physiology and Physical Geography as minors. During his studies in Marburg, Marc gained his first experience in teaching. He was recruited as a student assistant for the 'plant identification course' led by Prof. Weber in 2004 and 2005. Furthermore, he frequently led guided tours in the Botanical Garden of Marburg. During his time in Marburg, Marc took part in a series of botanical excursions in Germany, and broadened his knowledge on fieldtrips to the Alps (Austria), the Mediterranean (Mallorca, Malta), South America (Argentina, Chile) and Namibia. For his diploma thesis (equivalent to MSc), Marc embarked on a study about the mycorrhizal structures in the rue family (Rutaceae), supervised by Prof. Weber and Dr. Imhof. He graduated in April 2007 and published parts of his diploma thesis in the journal *Mycorrhiza*. From July until October 2007, Marc worked as a scientific assistant in the group of Prof. Weber, working on endemic species of the Maltese Islands.

Marc's fascination for the Rutaceae family brought him to the Netherlands, where he started his PhD at the Hortus botanicus Leiden/ NHN Leiden in February 2008 under the supervision of Prof. Erik Smets and Dr. Paul Keßler. In the four years of his PhD studies, he worked on several anatomical structures, molecular phylogenetic analyses and the historical biogeography of the Rutaceae subfamily Spathelioideae. During his time in the Netherlands, Marc gained further teaching experience (1st year students courses; Course on South-East Asian plant families; Course on tropical plant families), led guided tours and held public lectures in the Hortus botanicus and visited Herbaria in London (K), Berlin (B), Jena (JE), Hamburg (HBG), Copenhagen (C), Singapore (SING), Kota Kinabalu (SNP), Havana (HAC), and Kingston (UCWI, IJ). Marc conducted fieldwork in Jamaica and Malaysia (Borneo), and he presented his research at international conferences in Leiden, Singapore, Berlin and Melbourne. He received prizes for the best student presentations at the PhD day of the Dutch 'research school biodiversity' 2010 in Leiden, and the international 'Biosystematics' conference in Berlin in 2011.

In February 2012, Marc will start a one year postdoctoral position at the Smithsonian Institution in Washington DC, USA, extending his studies on the phylogeny and biogeography of Rutaceae.

List of publications

Van der Weide JC, Ronse De Craene LP, **Appelhans MS**, Smets E. Floral ontogenetic studies of selected Rutaceae species with special emphasis on the nectaries. In preparation for *Journal of Systematics and Evolution*.

Stock NK, Boschetti N, Herzog C, **Appelhans MS**, Niedrig M. The Phylogeny of Yellow Fever Virus 17D Vaccines. Submitted to *Vaccine*.

Appelhans MS, Keßler PJA, Smets E, Razafimandimbison SG, Janssens SB. Age and historical biogeography of the pantropically distributed Spathelioideae (Rutaceae, Sapindales). Resubmitted after revision to *Journal of Biogeography*.

Appelhans MS, Smets E, Razafimandimbison SG, Haevermans T, van Marle EJ, Couloux A, Rabarison H, Randrianarivojosia M, Keßler PJA. 2011. Phylogeny, evolutionary trends, and classification of the *Spathelia* / *Ptaeroxylon* clade: morphological and molecular insights. *Annals of Botany* 107: 1259-1277.

Razafimandimbison SG, **Appelhans MS**, , Rabarison H, Haevermans T, Rakotondrafara A, Rakotonandrasana SR, Ratsimbason M, Labat J-N, Keßler PJA, Smets E, Cruaud C, Couloux A, Randrianarivojosia M. 2010. Implications of a molecular phylogenetic study of the Malagasy genus *Cedrelopsis* and its relatives (Ptaeroxylaceae). *Molecular Phylogenetics and Evolution* 57: 258-265.

Appelhans MS, Smets E, Baas P, Keßler PJA. 2010. *Cneorum* (Rutaceae) in Cuba? The solution to a 150 year old mystery. *Taxon* 59: 1126-1134.

Appelhans M, Weber HC, Imhof S. 2008. Rutaceae sampled from Germany, Malta, and Mallorca (Spain) are associated with AMF clustering with *Glomus hoi* Berch & Trappe. *Mycorrhiza* 18: 263-268.

Acknowledgements

It all started with a missed train. I was standing at a platform at the train station in Cologne and knew that I would be late for my job interview in the botanic garden of Leiden University. I thought I had lost the job before even getting it, but it turned out to be OK and I finally started my PhD project in February 2008. The first people I have to thank are therefore Erik Smets, Paul Keßler, Johan Mols and Marco Roos, the members of the committee that decided to hire me despite this bad start.

This thesis would be much less satisfying without the input of Sylvain Razafimandimbison and Steven Janssens, who were of great help in theoretical and practical questions concerning phylogeny and biogeography. I'm glad and honoured that my name appears on publications together with yours.

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