

## **Current research on Apocynaceae using living collections**

*Ulrich Meve*

*Lehrstuhl für Pflanzensystematik, Universität Bayreuth, D-95440 Bayreuth, Germany*

*ulrich.meve@uni-bayreuth.de*

Different aspects of research involving living succulent Apocynaceae-Asclepiadoideae cultivated at the Dept. of Plant Systematics, University of Bayreuth, are presented. Presently our focus is on flower morphology and pollination, especially on the role of optical and olfactorial attractants of the flowers, be it foetid stapeliad flowers or pitfall flowers of *Ceropegia*. GC/MS analysis unveiled the chemical composition of the scent compounds, allowing so far the description of four different types of mimicry for the stapeliads. The special case of the Chinese *Ceropegia dolichophylla*, whose flowers seem to mimic dead insects, is pictured in detail. Such studies completely rely on living plants in cultivation, as do karyological (chromosome) studies. To have living plants available supports phylogenetic (molecular) analyses as well since quality of DNA gained from fresh plants material is much better than from herbarium specimens. Also, it improves taxon descriptions and presentations of all kinds such as the webpage “Genera of Asclepiadoideae, Secamonoideae und Periplocoideae (Apocynaceae)” by S. Liede-Schumann & U. Meve\*. There, descriptions of all genera accepted are given; and photographs, usually taken from plants in cultivation, are provided in addition.

\*See:[http://www.uni-bayreuth.de/departments/planta2/research/databases/delta\\_as/index.htm](http://www.uni-bayreuth.de/departments/planta2/research/databases/delta_as/index.htm)