



Iva Schödelbauerová¹, Pavel Kindlmann^{1,2,4} & David Roberts³

¹Department of Theoretical Ecology, Institute of Systems Biology and Ecology AS CR and Faculty of Biological Sciences, University of South Bohemia
Branišovská 31, CZ-370 05 České Budějovice, Czech Republic

²Agrocampus Rennes, 65 rue de St. Brieuc, F-35042 Rennes Cedex, France

³Royal Botanic Gardens, Kew, Richmond, Surrey, TW9 3AB, UK

⁴pavel@entu.cas.cz

The Species-Area-Energy Relationship in Orchids

It is assumed that species richness increases with area (the species-area relationship), with the energy available to an assemblage (the species-energy relationship) and towards the equator. To compare relative importance of these factors, we collected data about species richness of orchids from the whole world and calculated the mean Normalized Difference Vegetation Index (NDVI) as a measure of energy availability. We show that latitude plays a much more important role than energy available. We also pinpoint the outliers appearing in the relationships and give explanations for their abnormal species richness.