Diversification of Danthonioideae (Poaceae): integrating dispersal and radiation

Summary / Zusammenfassung
Diversification in a clade often includes two processes – increases in the distribution range, and increases in the species richness and /or morphological diversification. These processes could be associated in a general model of diversification, as was already hinted at by Simpson (1944) and elaborated by Stanley (1979), both palaeontologists.

Possibly the most interesting part of range expansion is the crossing of barriers to "new" territory. With molecular phylogenetic analyses the number and dating of all transitions in new habitats or geographical territory can be estimated. We use the grass subfamily Danthonioideae to investigate these patterns. Danthonioideae occur in Africa, Australia, New Zealand and South America, with a few species in North America and Europe. The subfamily is probably less than 20 Million Years old - thus there were a number of long distance dispersal events across the southern oceans, some resulting of the evolution of large numbers of species, some not. We hope to be able to develop a general model describing the diversification of such groups.

Publications / Publikationen
PIRIE, M.D., HUMPHREYS, A.M., BARKER, N.P., LINDER, H.P. Reticulation, Data
Combination, and Inferring Evolutionary History: an Example from Danthonioideae (Poaceae). Syst. Biol. 58: 612-628.


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