

Daphne: a dated phylogeny of a large European flora for phylogenetically informed ecological analyses

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Abstract. This data set represents a comprehensive, dated phylogeny of a large European flora comprising the vascular plants of the British Isles, Germany, The Netherlands, and Switzerland, totaling 4685 species. The phylogeny thus encompasses all species in the trait databases BIOLFLOR, PLANTATT, and BioBase 2003. The topology of the phylogenetic tree is based on a backbone family phylogeny of the Angiosperm Phylogeny Group III. Subsequently, partial phylogenetic subtrees derived from a total of 518 recent molecular studies were manually pruned onto the backbone tree, using multi-gene consensus topologies if possible. Similarly, 1103 internal nodes and the root node were dated based on 261 recent studies. Finally, an ultrametric tree was calculated by placing undated nodes evenly between dated nodes. The phylogeny provides a reference data set for comparative analyses of trait correlations, trait evolution, trait based ecological processes, community assembly, or other phylogenetically informed analyses across a large taxon of European plant species. It can readily be used in phylogenetic analysis tools like *ape*, *phytools*, *picante*, or *MESQUITE*.

Key words: BIOLFLOR; British flora; German flora; macroecology; Netherlands flora; phylogeny; PLANTATT; supertree; Swiss flora; vascular plants.

The complete data sets corresponding to abstracts published in the Data Papers section of the journal are published electronically in *Ecological Archives* at <http://esapubs.org/archive> (the accession number for each Data Paper is given directly beneath the title).