Geophysical Research Abstracts
Vol. 17, EGU2015-15745-2, 2015
EGU General Assembly 2015

TRY 3.0 - a substantial upgrade of the global database of plant traits: more data, more species, largely open access

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Plant traits determine how primary producers respond to environmental factors, affect other trophic levels, influence ecosystem processes and services, and provide a link from species richness to ecosystem functional diversity. Plant traits thus are a key to understand and predict the adaptation of ecosystems to environmental changes. At the same time ground based measurements of plant trait data are dispersed over a wide range of databases, many of these not publicly available. To overcome this deficiency IGBP and DIVERSITAS have initiated the development of a joint database, called TRY, aiming at constructing a standard resource of ground based plant trait observations for the ecological community and for the development of global vegetation models.

The new version of the global database of plant traits - TRY 3.0 – provides substantially improved information on plant traits: 5.6 million trait records for about 100.000 of the worlds 350.000 plant species. More than 50% of the trait records are open access. In combination with recent improvements in gap-filling of sparse trait matrices (e.g., Bayesian Hierarchical Probabilistic Matrix Factrization; see abstract 15696 by Farideh Fazayeli) the new version of TRY provides the opportunity to derive a filled matrix of plant trait estimates for an unprecedented number of traits and species. We expect that this data richness will facilitate qualitatively new analyses and applications of plant traits (e.g., abstract 15724 by Oliver Purschke).