Data Papers

The China Plant Trait Database: toward a comprehensive regional compilation of functional traits for land plants

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Abstract. Plant functional traits provide information about adaptations to climate and environmental conditions, and can be used to explore the existence of alternative plant strategies within ecosystems. Trait data are also increasingly being used to provide parameter estimates for vegetation models. Here we present a new database of plant functional traits from China. Most global climate and vegetation types can be found in China, and thus the database is relevant for global modeling. The China Plant Trait Database contains information on morphometric, physical, chemical, and photosynthetic traits from 122 sites spanning the range from boreal to tropical, and from deserts and steppes through woodlands and forests, including montane vegetation. Data collection at each site was based either on sampling the dominant species or on a stratified sampling of each ecosystem layer. The database contains information on 1,215 unique species, though many species have been sampled at multiple sites. The original field identifications have been taxonomically standardized to the Flora of China. Similarly, derived photosynthetic traits, such as electron-transport and carboxylation capacities, were calculated using a standardized method. To facilitate trait–environment analyses, the database also contains detailed climate and vegetation information for each site. The data set is released under a Creative Commons BY license. When using the data set, we kindly request that you cite this article, recognizing the hard work that went into collecting the data and the authors' willingness to make it publicly available.

Key words: J_{max}; *leaf chemistry; leaf economics; leaf morphometry; photosynthetic properties; plant traits;* V_{cmax}.

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