

# Database Temperate Deciduous Forests of the Uckermark Region

Monika Wulf

**Abstract:** Monika Wulf investigated 499 plots (vegetation relevés) in 66 mixed broadleaf forests from 1992 to 2007. The 499 plots (100–400 m<sup>2</sup>) represent alder-ash dominated stands on wet and moist sites, oak-hornbeam forests on fresh soils, beech dominated forests on (moderately) fresh soils and some mixed deciduous-coniferous forests. In each plot the abundance of all vascular plants per stratum (first and second tree layer, shrub and herb layer) was estimated using the Barkman scale. Bryophytes were noted as presence/absence data, but not on all plots. The location of each plot was drawn in topographical maps at scale 1:25,000 with an average deviance of 100-200 m. Additionally sketches with positions of the main tree and shrub species within the plot and at the plot boundaries were drawn. For 157 plots exact positions were recorded by means of GPS with an average deviance of 5 -10 m. It is planned to do this also for about 150 plots in 2010 or 2011. In a selected number of 180 plots from 31 forests soil samples were taken at three different horizons (0-5 cm, 5-10 cm, and 10-20 cm). At each plot 10 sub-samples were taken with a soil auger of 5 cm diameter, and were mixed separately for the three horizons to one sample. The soil samples were used to estimate the pH using a CaCl<sub>2</sub>-standard solution, and to determine the amount of the plant available cations Ca, K, Mg and P using an ammonium-acetate-solution. Determination of the cation concentrations were made with a spectral photometer and an atom-absorptions-spectrometer (AAS), respectively. For at least 50% of all plots site nutrient and moisture regime as well as humus nutrient and moisture regime were compiled from maps of the forest site inventories of the 1950s and 1960s. This report describes the available content in the Database Temperate Deciduous Forests of the Uckermark Region (GIVD ID EU-DE-007).

**Keywords:** abundance; forest inventory; humus form; *Melico-Fagetum*; pH; plant available cation; mixed deciduous-coniferous stand; *Pruno-Fraxinetum*; *Stellario-Carpinetum*.

GIVD Database ID: EU-DE-007		Last update: 2011-07-06
<b>Database Temperate Deciduous Forests of the Uckermark Region</b>		
Scope: Basic data for various joint project with partners within the Centre for Agricultural Landscape Research (Leibniz-ZALF) and with external cooperation partners/institutions		
Status: ongoing capture	Period: 1992-2007	
Database manager(s): Monika Wulf (mwulf@zalf.de)		
Owner: Prof. Dr. Monika Wulf, Leibniz-ZALF, Institute of Land Use Systems		
Web address: <a href="http://www.zalf.de/home_zalf/institute/lse/lse/mitarbeiter/wulf/general.htm">http://www.zalf.de/home_zalf/institute/lse/lse/mitarbeiter/wulf/general.htm</a>		
Availability: according to a specific agreement	Online upload: no	Online search: no
Database format(s): Excel	Export format(s): [NA]	
Publication: [NA]		
Plot type(s): normal plots	Plot-size range: 100-400 m <sup>2</sup>	
Non-overlapping plots: 500	Estimate of existing plots: 500	Completeness: 100%
Total plot observations: 500	Number of sources: 1	Valid taxa: [NA]
Countries: DE: 100.0%		
Forest: [NA] — Non-forest: [NA]		
Guilds: all vascular plants: 100%; bryophytes (terricolous or aquatic): 100%		
Environmental data: surface cover other than plants (open soil, litter, bare rock etc.): 50%; soil pH: 36%		
Performance measure(s): cover: 100%		
Geographic localisation: GPS coordinates (precision 25 m or less): 31%; point coordinates less precise than GPS, up to 1 km: 69%		
Sampling periods: 1990-1999: 90.0%; 2000-2009: 10.0%		
<a href="http://www.givd.info/ID/EU-DE-007">Information as of 2012-07-12; further details and future updates available from http://www.givd.info/ID/EU-DE-007</a>		

Monika Wulf (mwulf@zalf.de)

Institute of Land Use Systems, Centre for Agricultural Landscape Research (Leibniz-ZALF), Eberswalder Str. 84, 15374 Müncheberg, GERMANY