



S02.04-P -2

ADAPTING HUMUS FORM CLASSIFICATION TO WRB PRINCIPLES

Ulfert Graefe^[1], Rainer Baritz^[2], Gabriele Broll^[3], Eckart Kolb^[4], Gerhard Milbert^[5], Christine Wachendorf^[6]

^[1]IFAB ~ Institute for Applied Soil Biology ~ Hamburg ~ Germany ^[2]Federal Institute for Geosciences and Natural Resources ~ - ~ Hannover ~ Germany ^[3]University of Osnabrueck ~ Institute of Geography ~ Osnabrück ~ Germany ^[4]Technical University of Munich ~ Fachgebiet für Waldernährung und Wasserhaushalt ~ Freising ~ Germany ^[5]Geological Service North Rhine-Westphalia ~ - ~ Krefeld ~ Germany ^[6]University of Kassel ~ Department of Soil Biology and Plant Nutrition ~ Witzenhausen ~ Germany

The recently published European Reference Base for humus forms (ERB) aims to harmonize the classification of humus forms specifically required for transnational inventories and monitoring of soil conditions at the European scale. Although some of the proposed units still need to be confirmed in the field, the ERB marks a significant progress and lays the foundation for the further development of the classification. We suggest to adopt basic principles and rules of the WRB soil classification system for the classification of humus forms and topsoil conditions. This includes the restriction to two categorial levels consisting of main humus types (Mull, Moder, Amphi, Anmoor and others) at the first level, and a set of prefix and suffix qualifiers that are added to the name of the main humus type at the second level. The main humus types are differentiated according to the primary humus forming processes that have produced the characteristic humus profile (e.g. litter fragmentation, mixing with mineral soil). At the second level with qualifiers, the units are differentiated according to factors that have influenced the primary humus forming processes. Qualifiers may be related to the parent material of the humus form (e.g. Arenic, Siltic, Clayic, Histic), or to plant materials (Rhizic, Lignic), physical (Epilithic, Peyric), chemical (Eutric, Dystric), biological (Vermic, Mycotic) and hydrological (Hydric, Ombric, Rheic) characteristics. Furthermore, qualifiers related to diagnostic features of the A horizon facilitate to broaden the classification system to humus forms and topsoil conditions across the whole variety of soils and land uses.