

PhD projects at the Research Group of Vegetation Ecology

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CLASSIFICATION, CHARACTERIZATION AND REGENERATION OF WETLANDS IN EAST AFRICA

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Wetlands are important habitats for plant and animal biodiversity as well as provider of several ecosystem services (ESS). Wetlands in East Africa however are under pressure due to the growing demand for arable land and food and consequently increasingly used for cropping. Embedded in the context of the GlobE-Wetlands Project “Wetlands in East Africa – reconciling future food production with environmental protection” the aim of this thesis is to capture the diversity, dynamics and characteristics of flora and vegetation in four focal wetlands in the countries Kenya, Rwanda, Tanzania and Uganda.

In detail, the thesis is composed of the following aspects: Classification, Characterization, Regeneration and Assessment of Wetlands.

Classification means that vegetation surveys are being made at all study sites following land use intensity as well as ecological gradients. Similarities and differences in terms of species composition will be used to identify typical plant communities for the focal wetland sites.

Characterization as the following step attributes ecological information such as soil properties or provision of ESS to the common and distinct communities.

Parallel to rice and maize cropping experiments at the Ugandan and Tanzanian study site, the short and long term regeneration of vegetation after tillage will be studied regarding species composition and biomass. The experiment is done at different hydrological stages: center, middle and fringe of the wetland.

A further aim of the thesis is to design a method for East African Wetlands Vegetation Assessment that is very easily and quickly applicable while at the same time gives appropriate results for the disturbance degree of very different wetland types in East Africa.



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2 nd Supervisor	PD Dr. Bodo Maria Mösel
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