

GRASSLAND CAPACITY FOR LIVESTOCK AND WILD UNGULATES IN THE GREAT GOBI B STRICTLY PROTECTED AREA FOR SUSTAINABLE USE OF PASTURE

BRUCKMAN Viktor Dipl.-Ing. Dr., Universität für Bodenkultur (BOKU)

BUYANBAATAR Avirmed Dr., Mongolian University of Life Sciences

The Great Gobi B Strictly Protected Area is subject to seasonal grazing and it is expected that grazing intensities are going to increase in future, due to recent political and demographic changes. Little is known about the species composition, soil condition and there are almost no data on ecosystem carrying capacities for grazing, which is the only possible form of land-use at current.

Therefore, we propose the introduction of common methods for ecological evaluation of the aboveground vegetation and the topsoil horizons. This project aims on identifying the best suitable method for ecological grassland and soil status evaluation under livestock and wild ungulate grazing.

Two established methods will be applied and compared (Braun-Blanquet and Line Intercept Method) and the best suitable approach for the arid region of Mongolia will be identified. In addition, we will demonstrate methods for soil evaluation, which can be performed in the field.

The aim is to understand under which vegetation units (cover is mainly *Stipa*, *Caragana*, *Dzungarian*, *Reaumuria*, *Nanophyton* and *Saxaul*) and grazing intensities one can establish sustainable systems.

Two young researchers from Mongolia are invited to BOKU University where we will train the above-mentioned methods and prepare teaching materials in Mongolian language. The candidates will also be introduced to laboratory methods and the necessary preparation steps (e.g. ICP-OES, FTIR) and interpretation of data.

After this initial visit, the Austrian team will travel to Mongolia, where we plan to jointly organize a fieldwork campaign with on-site seminars that explain the methods and the scientific backgrounds. Earlier preparation of Mongolian documentation ensures no language barriers at this time, although we will ensure simultaneous interpretation by experts.

Results of the fieldwork will be further used for teaching purposes in Mongolia and Austria; it is expected that at least one Msc. candidate will join the Austrian team (self-funded) and complete his/her thesis based on the results generated from the field visit.

Time schedule:

Spring 2019: Visit of Mongolian experts to BOKU

Summer 2019: Visit of Austrian specialist to Life Science University, UB, Mongolia and field trip to the Great Gobi B SPA

Outcomes:

With the results a handout will be created for dissemination of the outcome of this workshop. The results will be published in the scientific circle and will be available in Mongolian and English language. Teaching materials will be prepared and results used in land-use related curricula in Mongolia and Austria. Expected is a Msc-thesis of a highly motivated Austrian student (to be determined, Supervisor: V.J. Bruckman et al.)

