Die Vegetation des Wohngebiets der Kallawaya und des Hochlandes von Ulla-Ulla in den bolivianischen Anden

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mit 16 Photos, 2 Figuren, 21 Tabellen und 2 Tabellen im Anhang

Abstract. As part of the interdisciplinary research programme “Kallawaya mountain population and ecosystems”, a vegetation analysis was carried out in the grass and subnival zones (between 3900 and 5200 m A.S.L. i.e. 12800 to 17100 feet) in the southern part of the Cordillera de Apolobamba, Bolivia, the highlands of Ulla-Ulla, adjacent on the south-west, and in the bordering settlement areas of the Kallawaya Indios.

The plant associations were recorded and arranged using the BRAUN-BLANQUET method, and figured in a map 1 : 50000. They were described at the same time according to their structure, distribution, site, and human impact. Prevailing zonal vegetation in the highland of Ulla-Ulla, in the inner-andine region, are Pycnophyllum steppes and Calamagrostis minima steppes. Aciachne grasslands and steppes of the bunch grass Festuca dolichophylla dominate the valleys of the settlement areas of the Kallawaya descending to the east.

The azonal vegetation is mainly formed by wetland associations and cushion moss swamps of large however local distribution, and by rock and scree fields, reed swamps, aquatic plant associations, and ruderal fields.

Particular attention is given to the type of human influence, especially pasture by camelids and irrigation; its influence on the vegetation is described.

A derivation of the potential natural vegetation is finally proposed. For this purpose, permanent observation plots of the Bolivian institute INFOL and vegetation records from other regions were additionally evaluated. As a result, the concept was developed, that in the grassland region above 4500 m (14800 feet) grassland of Calamagrostis curvula has to be regarded as natural vegetation. Beneath that level, various formations of the bunch grass steppes of Festuca dolichophylla are regarded as natural vegetation, while Pycnophyllum steppes, Calamagrostis minima steppes, and Aciachne grasslands must be regarded as pasture-induced substitute associations.

For a more intensive assessment of the situation of pasture, sample yield determinations were carried out and related to the various plant associations.

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