

Peat soil in Bavaria - implications for agricultural and climate-change strategies from a century of archived peat soil data

Kühnel, A., Conze, N., Machl, T., Kotzi, J., Kuhn, G., Freibauer, A.



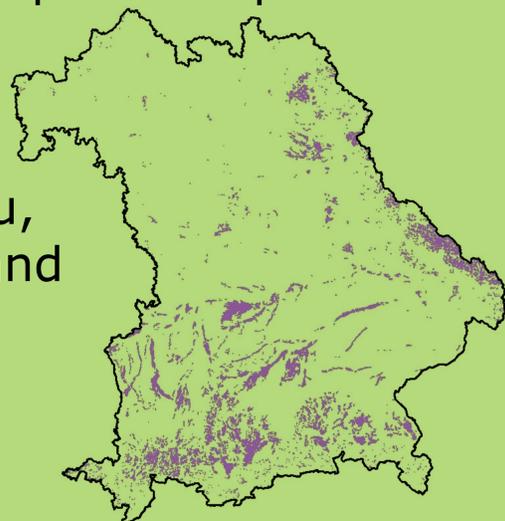
Background and Objectives

LfL stores an archive of historical maps, pictures and files, with 2100 paper maps (scale 1:5000) containing historical peatland information of Bavaria.

We will obtain and provide digital access to the spatial and temporal information on peatland areas contained in those maps.

Bavarian Peatland

- Currently 3% of Bavaria's area (220.000 ha)
- Many small peatlands in the alpine foreland
- Larger peat complexes along the rivers Donau, Iller and Isar



Moorbodenübersichtskarte, 1:500.000; LfU Bayern, 2015

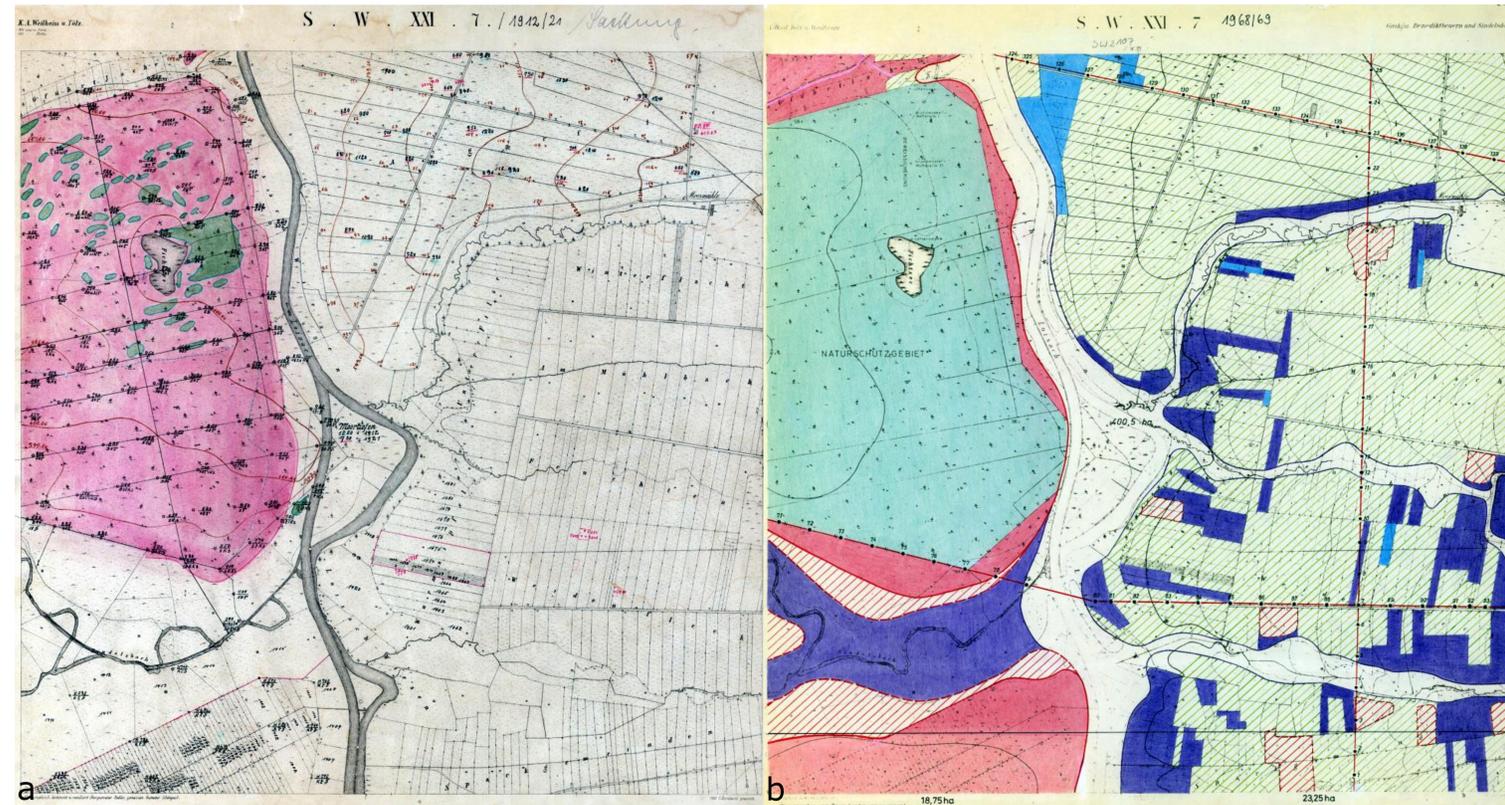
Historical map archive

Maps contain:

- Peatland extent
- Land use on peat soil
- Peat thickness
- Points with detailed soil information

First maps date back to 1908; extensive sampling campaigns took place around 1920, 1965, 1975 and 1980.

In certain areas mapping and sampling was repeated.



Maps with peat soil information in Benediktbeuern area, from a) 1912/1921, b) 1968/69



Map from 1920 with peat thickness information

Outlook

- Calculation of historical peatland loss
- Identification of controlling factors of peat degradation
- Designation of potential areas to implement strategies to mitigate and adapt to climatic changes (primarily rewetting)

KliMoBay-Project: Potentials of Bavarian peatlands for climate mitigation and adaption

<https://www.lfl.bayern.de/iab/kulturlandschaft/238568/index.php>