

# Quantification of Flower Resources using Digital Image Analysis

## background:

Species-rich grassland is severely endangered due to both intensification and abandonment of use. Restoration efforts are therefore gaining in importance. However, evidence-based evaluations comparing the success of different concepts are largely lacking. The transdisciplinary GRASSWORKS project uses existing restoration projects to study which ecological and socio-economic factors lead to successful grassland restoration.

The aim of the advertised thesis is to quantify flower resources on the study sites using digital image analysis and to evaluate its effect on pollinators.

## approach:

Within the framework of the research project, restored grassland sites in Lower Bavaria are studied and compared with positive (original species-rich meadows) and negative reference sites (intensive grassland). In spring and summer 2022 we sampled wild bees (net catches, sorting and determination of specimen in the lab) and butterflies (life observation), as well as vegetation on the study sites. Additionally we have taken standardised photos to record flower resources. These will be used to determine flower coverage by methods of digital image analysis.

## possible research questions:

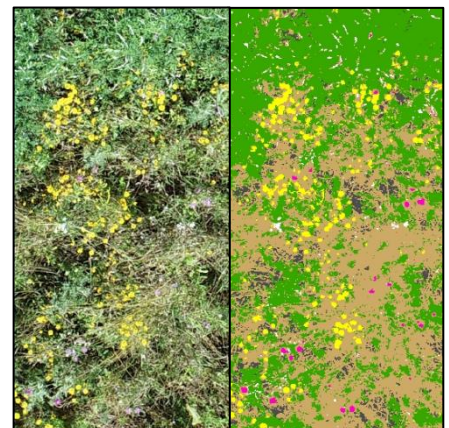
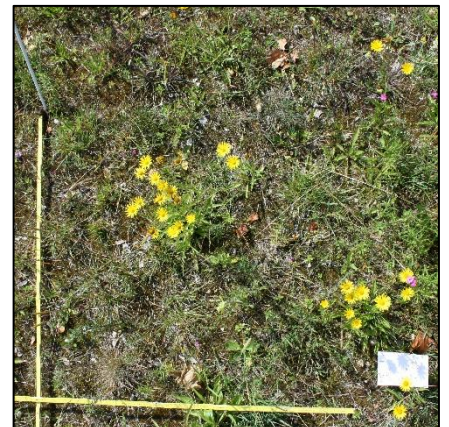
- effects of available flower resources on pollinator groups
- comparing different methods of digital image analysis

## timeframe:

Photo analysis from October 2022

## requirements:

Interest in photo analyses. Basic knowledge of grassland ecosystems is an advantage, as well as skills in statistics with R.



## contact:

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