University of Natural Resources and Life Sciences, Vienna
Department of Integrative Biology and Biodiversity Research
Institute of Zoology

ÖAW ÖSTERREICHISCHE AKADEMIE DER WISSENSCHAFTEN

Two Open Master Theses: ***Insect decline in Austrian Biosphere Reserves?***

Enhancement of Insect Diversity in Intensive Meadows due to Wild Flower Strips in Comparison to Extensive Meadows





Project Description:

Traditionally managed grasslands are an important habitat, not only for maintaining a high level of plant diversity, but also for maintaining the diversity of numerous important pollinator groups. Intensification in agriculture has led to a decline in traditionally managed meadows in recent decades, resulting in a loss of species-rich habitats. This trend raises two central questions: (i) How can we transform grassland to counter the loss of biodiversity caused by intensive farming and (ii) how can biodiversity in grassland be increased or restored? The provision of a broad spectrum of flowering plants could be an essential part of the promotion and maintenance of a stable pollinator community in grassland. This can be achieved by sowing wildflower strips. In this project we investigate the effectiveness of newly sown wildflower strips to obtain different pollinator groups. In addition, important grassland dwellers such as grasshoppers and true bugs, which are important primary and secondary consumers in grassland, are included in the study. The aim of our investigations is to find out whether newly established wild flower strips are suitable as an alternative habitat for the mentioned insect groups in intensive grassland. Thus, it is examined whether and to what extent the applied wild flower strips optimize the diversity of the selected insect groups. We compare these flower strips with intensively and extensively managed meadows in the Biosphere Reserves.

Research Questions:
Do newly established wild flower strips increase insect richness and abundance in the adjoining intensive meadows? Can newly established wild flower strips promote insect diversity more than extensive meadows?

Time table:
Duration: 6 months including May - August 2020 field work: Measuring insect diversity by sweep net/Observation plot method, identification of true bugs or pollinators (with the support by the supervisors)
Announcement of master thesis: December 2019
Kick-off meeting: February 2020
Travel cost will be covered.
If you are interested in the master thesis, please write an e-mail to thomas.frank@boku.ac.at or raja.hussain@boku.ac.at or ronnie.walcher@gmx.at

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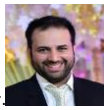
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