



Announcement of Two Master Theses Projects

“Functional diversity, ecosystem services and multitrophic interactions of birds in Italian olive agroforestry systems”

As a part of our [research project “ECO-OLIVES,”](https://bdc.univie.ac.at/research/current-projects/eco-olives/) we are offering two Master theses that focus on birds in Italian olive groves (<https://bdc.univie.ac.at/research/current-projects/eco-olives/>).

A combination of methods (i.e., passive acoustic recordings and predation experiments) will be used to record birds and associated pest control services on 12 olive grove sites and 4 semi-natural habitat sites in our study area nearby Pisa, Italy. The theses will focus on **(1) community composition (alpha / beta diversity)** & **(2) functional diversity (focus on habitat affiliations and feeding guilds)**. The main hypotheses to be tested is if community composition, functional diversity and provision of ecosystem services are affected by local and landscape parameters.

Each MSc student will have access to available data from the project (i.e., study area, functional traits and available bird recordings from 2023) and is expected to:

- Record birds using unattended recorders in 12 olive grove habitat clusters and 4 semi-natural habitat sites (16 sites in total) within 6-8 weeks of field work in Italy (~4h passive recordings/ day)
- Record site-specific variables such as vegetation composition in olive groves (~ 2-3h / study site)
- Conduct artificial prey experiments to assess predation rates of predatory species (birds, arthropods, mammals; ~ 1h per study site)
- Participating in other data recording tasks of our research team in Italy to complete available data sets from the study area that are relevant for this thesis (~ 2-3h per study site)
- Statistical analysis of the collected data using R
- Writing the thesis, preferably in the form of an English manuscript (~ 15-20 pages)

Field work shall be done between Oct/Nov 2023 and May/June 2024 (3-4 months in total) in our study area nearby the city Pisa in Italy. Candidates will be supported to apply for a travel grant (from the University of Vienna see “KWA” scheme for short-term grants abroad). The MSc students will be part of a larger research team based in the study area (see @AgroEcoDiv on Twitter).

The work requires physical fitness and willingness to do field work in hilly landscapes. Prior knowledge of the topics, animal groups, and methods described, as well as Italian language skills are a plus. To do the field work, a car driving license is mandatory and the availability of an own car is a plus. The thesis project is suitable for MSc students in ecology, zoology and conservation biology.

If you are interested, please contact Tara Hanf-Dressler (tara.hanf-dressler@uni-potsdam.de) with a short motivation letter (max. 0.5 page) and an attached CV (max. 2 pages) under the subject “MSc ECO-OLIVES”. Interviews of chosen candidates will be taken via Zoom between July and August 2023. If interested, please apply as soon as possible.

