

One BSc/MSc thesis opportunity

Dummy caterpillars to quantify predator activity

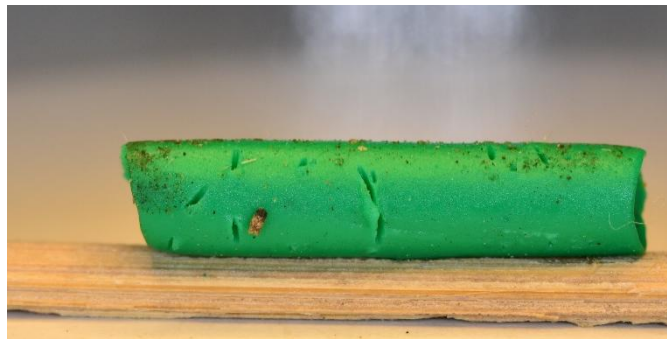


Fig.1 Dummy caterpillars with carabid (left) and insect bites (right).

Dummy caterpillars made of plasticine (i.e., dummies) are frequently used to quantify vertebrate and invertebrate predator activity (Howe et al. 2009; Lövei & Ferrante 2017). Predation marks on dummies can be categorised into broad taxonomic groups (Low et al. 2014). However, contrarily to marks by rodents and birds, which are easily recognisable, predation marks by invertebrates are more variable and difficult to assign to specific taxa. Laboratory tests where predators are offered dummies would enhance our understanding of which species attack such prey and how characteristic their marks are. As part of the HEAVEN project, we aim to collect carabids and other invertebrates to perform non-lethal, laboratory tests using dummies. Ideally, we would like to produce a photographic “BiteGuide” to improve this method. We also consider to collaborate with museums to obtain bite marks from small mammal species from Europe. The student will be encouraged to contribute with his/her suggestions to this topic.

We are looking for one BSc/MSc student who is interested in conducting his/her thesis on dummy caterpillars as a method to quantify predator activity.

Tasks: Invertebrate collection from the field, laboratory tests, high-quality picture.

Requirements: Interested in laboratory work, photography, and be willing to write your thesis in English. Experience with the invertebrate taxonomy, knowledge of R, and having a driving license and willingness to drive are an asset.

Period: Invertebrate collection could take place from spring 2026.

Opportunities: You will have the opportunity to define your BSc/MSc thesis topic under guidance.

Contact: Dr. Marco Ferrante, marco.ferrante@uni-goettingen.de; Marleen Krämer, marleen.kraemer@uni-goettingen.de Functional Agrobiodiversity & Agroecology – DNPW, Georg-August-University Göttingen

Literature:

[Dummy caterpillars as a simple method to assess predation rates on invertebrates in a tropical agroecosystem - Howe - 2009 - Entomologia Experimentalis et Applicata - Wiley Online Library](#)

[Determining predator identity from attack marks left in model caterpillars: guidelines for best practice - Low - 2014 - Entomologia Experimentalis et Applicata - Wiley Online Library](#)

[A review of the sentinel prey method as a way of quantifying invertebrate predation under field conditions - Lövei - 2017 - Insect Science - Wiley Online Library](#)

