



## Head



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## Duration / Credits

12<sup>th</sup> - 22<sup>nd</sup> September 2016 / 7.5 ECTS-Credits

## Location

Institute of Ecology,  
University of Innsbruck, Austria

## Course Fee

€ 850,- (including course and bench fees,  
course materials and documentation)

## Website

<http://www.uibk.ac.at/projects/mati/>

## Contact

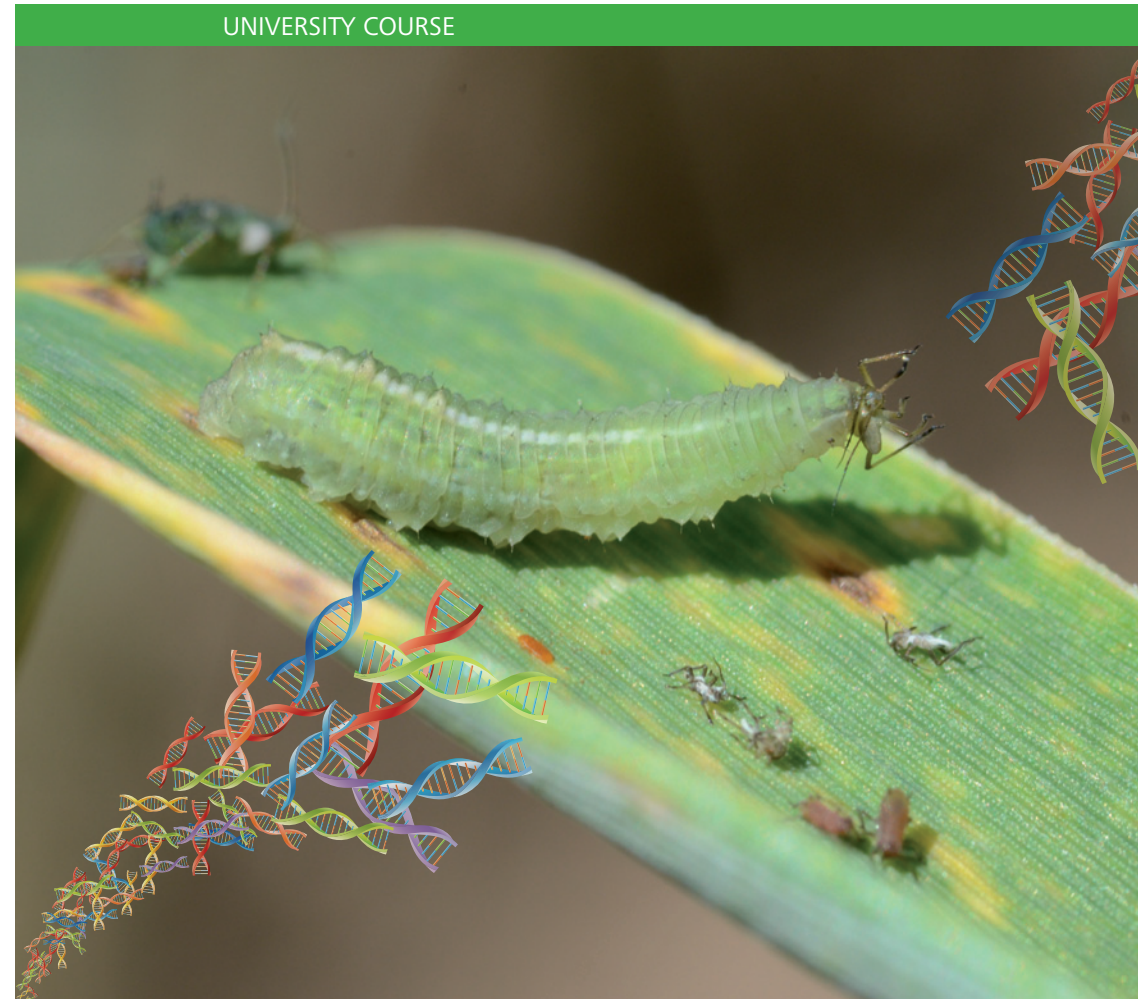
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## Enrolment

until 31<sup>st</sup> July 2016  
**Division of Continuing Education**  
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# MOLECULAR ANALYSIS OF TROPHIC INTERACTIONS (MATI)

UNIVERSITY COURSE



## Target audience

Undergraduate and graduate students as well as postdoctoral researchers and technicians who wish to apply DNA-based methods to study trophic interactions.

## Modules

### Lecture Series

**1.5 ECTS-Credits**

The lecture series provides an overview of the state-of-the-art in molecular trophic ecology and deals with the concepts and the methodological approaches used in this research field including diagnostic PCR and NGS.

### Seminar series

**1.5 ECTS-Credits**

The seminar series focuses on the application of molecular methods to analyse trophic interactions. Special emphasize is placed on the participants' projects regarding study design and optimal choice of methods.

### Practical course

**4.5 ECTS-Credits**

The practical course focuses on the application of techniques used in molecular trophic ecology. In the course participants will conduct the complete workflow from sample to Sanger sequencing. The general concepts of primer design and assay development needed for diagnostic and NGS approaches will be addressed and practically performed for diagnostic PCR.

### Total

**7.5 ECTS-Credits**

## Content and Learning Target

Molecular approaches offer exciting possibilities to study trophic interactions. Within the last decade considerable progress has been made in DNA-based methodology to unravel who eats what including predator-prey, host-parasitoid and herbivore-plant interactions across ecosystems. This course provides a hands-on introduction to molecular trophic ecology and offers the opportunity to discuss how to best apply these methods to your own research project.

By completing this course module the participants will have achieved a general understanding of the concepts of DNA-based diagnostics. They will be able to apply and develop basic molecular assays with the focus on the analysis of trophic interactions.

## Coverage / Duration

The MATI-Course includes a lecture and seminar series as well as a practical lab course ( $\Sigma$  7.5 ECTS-Credits). The practical lab work will be conducted in groups of 3-4 people in a laboratory specifically set up for molecular diagnostics at the Institute of Ecology. The course runs for 2 weeks from 12<sup>th</sup> to 22<sup>nd</sup> September 2016. Please check our website for more detailed information.

## Qualification

Certificate of the University of Innsbruck in Molecular Analysis of Trophic Interactions. Participants who wish to obtain the ECTS-Credits have to generate a protocol on the practical coursework and to pass a final exam.