

MSc Environmental Sciences / Forest Sciences / Biology
Module (64128) "Introduction to Hymenoptera"
Module plan "Wintersemester" 2022/23

Module coordination: Nolan J. Rappa (Professur für Naturschutz und Landschaftsökologie)

Lecturers: Nolan J. Rappa, Riko Fardiansah

Maximum number of participants: 10

Time: Introductory lecture: 19.10.2022, weekly lectures/exercises: 19.10.2022-14.12.2022, Holiday break: 15.12.2022-11.01.2023, Final Exam: 1.02.2023, Practical: 8.02.2023.

Location: Lecture room 01 102, 17:00-20:00

Exam form: Written (01.02), Practical (08.02)

Date	Lecture/Presentation topic	Practical exercise
19-Oct	Introduction to insect collection & preparation, Nolan J. Rappa	Specimen handling, morphotype sorting Assigning groups to individual students for presentations
26-Oct	Student presentations (2)	Preparation, Identification and labelling of specimens in boxes
2-Nov	Student presentation, Introduction to entomology, Nolan J. Rappa	Preparation, Identification and labelling of specimens in boxes
9-Nov	Student presentations (2)	Identification and labelling of specimens in boxes
16-Nov	Student presentation, Insect taxonomy	Identification and labelling of specimens in boxes
30-Nov	Student presentation (2)	Identification and labelling of specimens in boxes
7-Dec	Student presentations, Hymenoptera Ecology & Conservation	Identification and labelling of specimens in boxes
14-Dec	Student presentation	Identification and labelling of specimens in boxes, Questions about the final exam
	Christmas break	
11-Jan	No presentations	Identification and labelling of specimens in boxes, Questions about the final exam
18-Jan	No presentations	Preparation for practical
25-Jan	No presentations	Preparation for practical
1-Feb	No presentations	Final Exam
8-Feb	No presentations	Practical

Lecture topics

Lectures will be relatively short (~25 min.), and will prepare students for the tasks covered that day and subsequently in the course.

- Introduction to insect collection & preparation (19.10)
- Introduction to entomology (2.11)
- Insect Taxonomy (16.11)
- Hymenoptera Ecology & Conservation (7.12)

Individual student presentations

Each student will be assigned a Family of solitary bees or wasps on the first day of the course. Each student will then give a presentation on the life history/identification of that group. * denotes Families which must be assigned.

~ 5 minutes long, describes (what, where, why and how) one of the following groups:

- Megachilidae
- Apidae *
- Ichneumonidae *
- Crabronidae *
- Pompilidae
- Vespidae *
- Chrysididae *
- Formicidae *
- Colletidae
- Sphecidae
- Tenthredinidae *
- Cynipidae
- Pteromalidae
- Eulophidae

Final Exam (40 % of final grade)

Final Exam will contain 25 questions about topics covered during lectures. Topics and questions will be reviewed before the final exam date.

Practical (60% of final grade)

The identification practical will be a hands-on exercise where students are given a small collection of insects they must correctly identify to species.

Course outcomes

It is our goal that by the end of this course all students will:

- Understand the importance of proper insect collecting for research,
- Have a basic understanding of entomology and insect taxonomy,
- Be able to identify the most commonly encountered bees and wasps