

## Join us at iomE as

### Student Assistants

## Role of niche choice in rapid host adaptation of Colorado potato beetle (5h/week)

### Institute

The Institute of Organismic and Molecular Evolution (iomE) focuses on the analysis of the processes of evolutionary change. The research focus includes evolutionary changes in genes and proteins, the evolution of social behaviour, symbiotic and parasitic associations, life course strategies and human populations, and the process of speciation. For a comprehensive understanding of evolutionary processes, all levels of organismic complexity are examined, from the individual gene to organisms, populations and species in nature.

### Research animals

The Colorado Potato Beetle (CPB) (*Leptinotarsa decemlineata*) is a global pest that can cause complete defoliation of potato plants (*Solanum tuberosum*). Since expanding its hosts to potatoes about 200 years ago in its native range (Mexico), the beetle has rapidly spread to North America and Europe and has now reached Asia. CPB is currently resistant to over 54 insecticides, including the neonicotinoids commonly used in agriculture.

### Project

Individuals select different microenvironments (niche choices) that increase their fitness. Evolutionary theories predict that individual niche choice can facilitate rapid adaptation in a heterogeneous environment; however, with limited direct empirical evidence. We here will investigate how niche choice affects the evolutionary process of insecticide resistance in CPB.

**Start date:** February 27<sup>th</sup> or sooner

**Duration:** 1 to 2 years

**Working hours:** 5 hours a week

**Application deadline:** 20.02.2023

### Tasks and responsibilities

- Work as part of a team in a dynamic environment
- Grow potato plants in the climate chambers
- Rear juvenile and adult beetles in the climate chambers
- Help with ongoing experiments if needed

### Minimum requirements

- Ongoing or completed studies in biology or related fields (B.Sc. or M.Sc.)
- Matriculated student

- Strong communication skills and team spirit
- Flexible working hours (sometimes also weekends)
- Familiarity with MS Office software

**Desired requirements**

- Basic knowledge of insect development and behaviour
- Know-how in plant growing

**Why join us**

We offer a stimulating, diverse and international research environment with a pleasant working atmosphere and informal culture.

**Our offer includes**

- A diverse, friendly and international research environment
- Training opportunities
- Employee events
- Pay according to the remuneration table for research assistants/students

**Interested?**

To apply, please, send a single PDF file containing your short motivation letter, CV, and certificates (if applicable), quoting Ref. No. CPBH#4 to Nijat Narimanov ([nnariman@uni-mainz.de](mailto:nnariman@uni-mainz.de)). iomE is an equal opportunity employer.

**Declaration of Consent and Data Protection**

By sending us your application, you consent to us saving your personal data to carry out the selection process.

**Group website**

<https://plant-x.uni-mainz.de/>