

# Master Thesis

## Impacts of climate warming on energy budget of beetles

### Background

Climate warming affects movement ecology animals with far reaching impacts on species interactions and mobile link dynamics. Movements are related to energetic costs. Owing to new and more variable environmental conditions caused by climate change, existing mechanisms to balance increased physiological demands may not be sufficient and the decision of how, where, and when to move will become more complex. However, basic knowledge on energetic costs related to warming are missing for many taxa.

### Research questions

How does temperature affect energy budget of beetles?  
How do temperature responses differ between individuals and body size?

### Methods

You will use our newly established respiration chamber to measure CO<sub>2</sub> consumption of beetle individuals differing in body size. Ambient temperature will be manipulated in a climate chamber.

### Contact

Kolja Bergholz | [bergholz@uni-potsdam.de](mailto:bergholz@uni-potsdam.de)  
Niels Blaum | [blaum@uni-potsdam.de](mailto:blaum@uni-potsdam.de)

