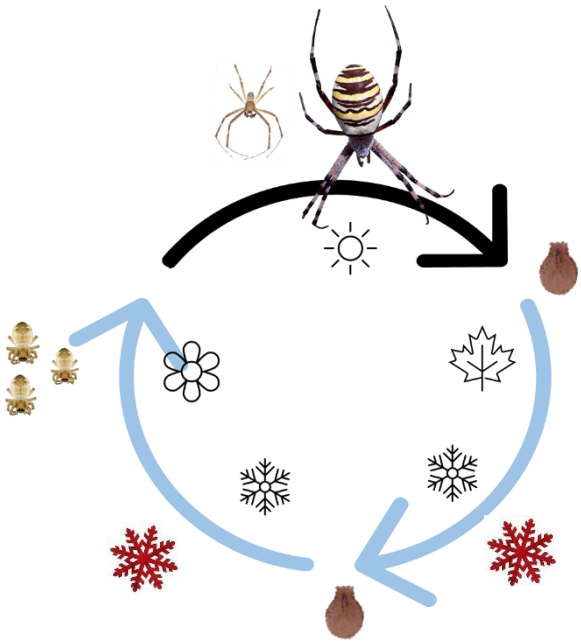
Bachelor oder Master Arbeit:

Szenarien des Klimawandels: Effekte erhöhter Wintertemperatur auf Überleben und Kondition

Scenarios of climate change: effects of increasing winter temperature on individual survival and condition in an invertebrate predator

This project will study the effects of climate change on survival and development of an invertebrate predator. The European wasp spider, *Argiope bruennichi*, has successfully colonized Northern Europe from the Mediterranean in less than 100 years. While adaptation to cold temperatures have been investigated, this project shifts the focus to **how strongly the southern populations are expected to suffer from global warming**. To this aim, we will subject spiderlings in their egg sac to warmer winters. Under the current climate change scenarios we will expect increasing temperatures ranging between 2 to 5 °C. We like to simulate the climate change effects using spiderlings in the egg sac that are subjected to either current winter conditions, warmer winters (+3.7 °C) and even warmer winters (+4.8 °C). We will investigate survival and lipid content as a proxy for body condition and resistance to thermal stress. This project will allow us to make predictions on the effect of warmer winters on species persistence.



What you will learn:

- Implementing climate change scenarios in experimental set-ups
- knowledge on invertebrate development and metabolism
- scientific project management
- scientific writing and presenting in English and/or German

Scope: This project will be integrated within the *Argiope bruennichi* project of the RESPONSE graduate school. The focus is on how this spider species can adapt to novel/changing environments. The larger scale project is highly collaborative, combining experimental biology, genomics, microbiology and metabolomics. Researchers from Seattle and Trier, and several departments in Greifswald are involved in the RESPONSE project.

Please get in touch with:

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