

Master's Project:

Fertility loss under heat stress: What are the downstream consequences?

We are looking for an enthusiastic MSc student interested in ecology and evolution, who would like to work alongside a PhD student and conduct their independent research as part of a bigger project.

Start: The start date is flexible, but preferably by early 2023.



Background

Climate change is causing more extreme temperature fluctuations, including more widespread, longer, and more intense heatwaves. Extreme weather events can have damaging effects on organisms and cause species declines, extinctions, or range shifts across ecosystems. Animals like insects, whose physiology and metabolism are directly linked to their ambient temperature, are particularly affected. For better predictions of population distributions and persistence, we need to know how extreme conditions not only affect the survival of individuals but also their ability to reproduce. For example, there is growing evidence that heat stress can cause infertility in insects (e.g., due to sperm damage), but individuals below the sterility threshold may be affected in their own, but unexplored, way.

Aims

Using experimental heatwaves at different life stages in our insect model systems (e.g., *Drosophila*), this project will explore (1) the short- and long-term fertility loss in exposed individuals, and (2) the health and fertility consequences for their offspring (i.e., transgenerational effects).

Requirements

Interest in climate change, reproduction, evolution, and experimental work with insects. Ideally some knowledge of data analysis. Ability to work on a team.

More info: <http://www.lupoldlab.net>

If you have any further questions, do not hesitate to contact me. I am looking forward to meeting you!

Contact:

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