



<p>WORKING PROJECT TITLE</p>	<p>Synthesizing evolutionary and ecological responses to climate change</p>
<p>CORE TEAM MEMBER</p>	<p>Susana Clusella-Trullas, Charlene Janion-Scheepers</p>
<p>ACADEMIC LEVEL OF THE PROJECT</p>	<p>Post-doctoral</p>
<p>PROJECT BACKGROUND</p>	<p>This project will incorporate field and experimental approaches to explore the driving role of microclimate variables in shaping evolutionary adaptive responses to climate change. The project will focus primarily on large datasets relating to insects, and their intra-specific trait variation in time and space, to test how organisms' phenotypes are shaped by their environment, informing how rapidly they may respond to future climate change. Strong meta-analytical skills will be required to examine intra- and inter-specific comparisons and enhance our understanding of trait variation in a phylogenetic context. In addition to the field collected data, we aim to incorporate thermal physiology data and examine how the co-variation between morphological and physiological traits drives the distribution of key species along an elevation gradient.</p>
<p>PREFERRED STARTING DATE</p>	<p>Early to mid-2024.</p>
<p>LENGTH OF PROJECT/FUNDING</p>	<p>2 years with the possibility of extension of 1 additional year (3 years total). Competitive funding is available at standard rates. Yearly postdoc renewal will be subject to progress made.</p> <p>The candidate must be able to work as part of a team and be willing to spend periods of time in the field.</p>



Attendance to national and international conferences and workshops will be highly encouraged.

REQUIREMENTS

PhD (must have graduated within the past five years). A PhD in Biological or Life Sciences is required. The candidate should have experience working with insects (rearing colonies, experimental set-ups) as well as experience in the measurement of thermal performance and/or physiological (metabolic, water balance) assays.

The candidate should be able to work independently, have advanced statistical skills in the R environment (e.g., phylogenetic comparative methods, Bayesian statistics), be able to program moderate routines in R and have a proven track record of publishing research in high quality peer-reviewed journals. Tutoring experience of junior students is desirable. International candidates should meet the entry requirements and visa regulations for study at the postdoctoral level at Stellenbosch University.

FURTHER READING

Clusella-Trullas & Nielsen. 2020. The evolution of insect body coloration under changing climates. *Curr Opin Insect Sci*, 41:25-32. doi: 10.1016/j.cois.2020.05.007

Moore *et al.* Temperate species underfill their tropical thermal potentials on land. *Nature Ecology and Evolution*. In press. (R²) doi: 10.21203/rs.3.rs-2635490/v1

Verheyen, Tüzün & Stoks. 2019. Using natural laboratories to study evolution to global warming: contrasting altitudinal, latitudinal, and urbanization gradients. *Curr Opin Insect Sci*, 35:10-19. doi: 10.1016/j.cois.2019.06.001

White *et al.* 2021. Geographical bias in physiological data limits predictions of global change impacts. *Functional Ecology* 35: 1572-1578. doi: 10.1111/1365-2435.13807



CONTACT DETAILS
OF CORE TEAM
MEMBER

Complete applications will include a cover letter, a one-to-two-page research statement, a comprehensive CV including the list of publications, and the names and contact details of at least two referees. Documents should be sent to:

Prof. Susana Clusella-Trullas, CL·I·M·E lab, Dept. Botany and Zoology, Stellenbosch University.

Email: sct333@sun.ac.za; <http://climelab.net/>

Review of applications will begin November 28, 2023, and continue until the position is filled.