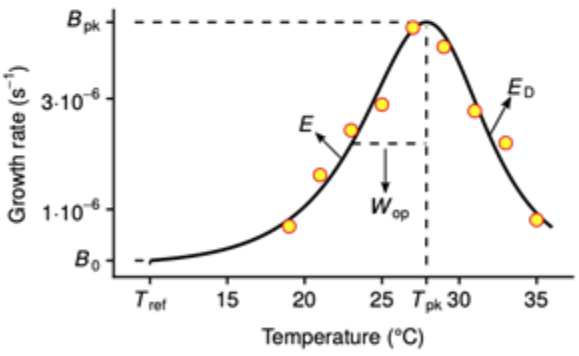
Subject: Ecology and Evolution Seminar this week – Thurs 10th October, 1 pm
From: "Ellis, Amanda J" <amanda.ellis@imperial.ac.uk>
Date: 10/10/19, 9:29 AM

Ecology & Evolution Seminar Series

Thursday 10th October, 1 pm, Fisher/Haldane

Deep-time evolution of biological responses to temperature changes

The relationship between the performance of a biological trait and temperature (the "thermal performance curve"; TPC) is typically single-peaked and asymmetric. Understanding how the shape of the TPC varies across – and within – species and environments is of particular importance for identifying the limits to thermal adaptation and for forecasting the biological impacts of climate change. In particular, the influence of thermodynamic constraints on the shape of TPCs is a hotly contested topic in the literature. To shed light on this debate, I take a phylogenetic comparative approach and characterize the evolutionary patterns of various aspects of the TPC shape across phytoplankton, prokaryotes, and plants. I also discuss how the study of TPCs can be linked with approaches from other fields (e.g., population genetics, species interaction networks) to ultimately obtain a unified picture of thermal adaptation from molecules to ecosystems.



Dimitrios - Georgios Kontopoulos
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Contact: Emma Cavan (emma.cavan@imperial.ac.uk)
Schedule online: www.imperial.ac.uk/silwood-park/research/thursday-seminars/

Many thanks,

Emma

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