



University of Cyprus
Department of Biological
Sciences

Postgraduate Seminars

Seminar Series 2020 - 2021

Dr. Nicholas Price

Postdoctoral fellow at Colorado State University

&

Visiting researcher at the University of Cyprus

“Deconstructing the genetic code of plant adaptation to climate: Lessons from *Arabidopsis*”

Wednesday, 21 October 2020, at 17:00

The seminar will be hosted via Zoom.

Click [here](#) to find the seminar registration link and join our seminar.

The seminar is open to the public

Climate is an abiotic variable that significantly varies along the earth's surface and can have a significant impact on an organism's survival and reproduction. Species of plants with populations in different climates, often show evidence of local adaptation, in which case the resident genotype, on average, shows higher fitness than a foreign genotype. Understanding the genetic basis of plant adaptation to local climates has become of paramount importance in the face of climate change, and its future effects on food production, species extinction, and carbon emissions.

The model plant species *Arabidopsis thaliana* is particularly well-suited for studying local adaptation to climate since its native range traverses extremely different climates across Eurasia and Africa. Using a multidisciplinary approach that combines population genomics, field-based experiments, and lab-based data, the presentation will address the following fundamental questions: Do population genomic and quantitative genetic evidence of local adaptation show any convergence? If so, (b) are these population genomic signals enriched along cis-regulatory/nonsynonymous sites showing significant evidence of function? (c) What are candidate genes and life-history traits underlying local adaptation; And (d) Do genes involved in flowering time show any significant evidence of local adaptation?

Looking forward to seeing you at the presentation!

P.S. Given this opportunity I would be very happy to meet faculty and students in order to discuss science and possible collaborations. My office is at wing H, ΘEE 02, office 048. Email: price4890@gmail.com