



Is the tree of life branching?

Tales of the speciation continuum by the lizard *Timon lepidus*

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Timon lepidus is one of the species that endured the climatic cycles of the Quaternary, which greatly influenced population evolutionary dynamics in the Iberian Peninsula.

For this lizard, these phenomena resulted in three parapatric subspecies, nowadays distributed along an ecological cline. Along this cline, phenotypic differences in biometry and colour pattern arise, such that each phenotype occurs in association with a specific bioclimatic region of the species distribution. Coloration and body size can influence mate choice, crypsis and thermoregulation which can translate into dramatic effects on fitness, raising the question of whether we are looking into a speciation continuum, driven by ecology.

Understanding speciation is a long-standing goal of Evolutionary Biology and researchers have been excited about the number and type of genetic alterations that underlie evolutionary change. Questions about the modification and origin of traits driven either by ecological factors, natural selection or genetic drift are currently being actively investigated, and Next-Generation-Sequencing brings new tools to the field.

Looking to phenotype, genome and ecology, we will search for signatures of selection and divergence in the genome of these beautiful lizards and try to further understand their evolutionary future.

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FCUL (Edif. C6) – 12.00h-13.00h – Sala 6.2.51