



Faculty

P1.

Are Mediterranean lizards safe from climate change?

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Human activities have triggered unprecedented changes in Earth's climate, generating many concerns about the future of biodiversity. Although temperate regions are warming more rapidly than tropical ones, the heightened sensitivity of tropical species could make them more vulnerable to climate change. Indeed, recent analyses indicated that temperate and subtropical lizards, such as those throughout the Mediterranean region face little risk of extinction in the coming decades. Yet, these analyses involve simplifying assumptions that are patently false for lizards. Relaxing those assumptions leads to a more complex view: the risk of extinction should vary among species within regions, given the capacity for behavioral thermoregulation and physiological acclimation. Detailed models of population dynamics in predicted thermal landscapes can help to identify which species face the greatest risks. I will illustrate this approach using data for a North America species of lizards, *Sceloporus undulatus*.

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