Microhabitat use, activity and selected temperatures of sympatric *Iberolacerta horvathi* and *Podarcis muralis*

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Lizards live in a thermally heterogeneous environment and use thermoregulation through behavior and physiology to maintain body temperatures within a narrow thermal range during their activity. Lizards' microhabitat selection is driven by many factors, being thermoregulatory behavior one of the most important ones. Reversely, the thermal environment will amongst other factors have an effect on effective thermoregulation. In syntopic populations of potentially competing species, habitat selection will also be influenced by avoiding interactions; subtle differences in microhabitat use may be detected. We studied microhabitat selection, activity and selected temperatures in *Iberolacerta horvathi* and *Podarcis muralis* under allotopic and syntopic conditions. We used novel geo-location techniques with a low error, registered environmental temperatures with temperature data-loggers and performed spatial analyses using geostatistics (interpolations). Results showed that more generalist species (*P. muralis*) exhibits a more generalized use of microhabitats and thermal space and is active for a longer period of the day than the more specialist species, *I. horvathi*. Allotopic *I. horvathi* site was characterized with low environmental temperatures (Te) that allowed restricted activity time. This corroborates its high-altitude eco-physiology as an adaptation to thermally restricted environments. Syntopic site that supports both species was characterized by the highest range microhabitat types and Te, which suggests that both, habitat and spatial thermal heterogeneity may be an important factor promoting species coexistence.