Comparative preferred temperatures by two sympatric lacertids, *Podarcis muralis* and *Iberolacerta horvathi*

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Abstract: Distribution of the genera *Podarcis* and *Iberolacerta* in Europe have been hypothesized to derive from current and past interactions. Among the putative factors involved, thermal ecology is expected to play a determinant role. As a first step in this research, here we perform a comparative analysis of the preferred temperatures (Tp) by representatives of both genera living in sympatry. Because Tp carries substantial phylogenetic inertia, we expect derive predictions for other similar species tandems. *Podarcis muralis* and *Iberolacerta horvathi* display overall similarity in morfometry, coloration and ecology. While *P. muralis* is a widespread species in Europe occupying a variety of microhabitats, including urban areas, *I. horvathi* is endemic to Southern Alps and Dinaric Mountains living in rocky habitats but never near human settlements. Sympatry of both species has been recorded in Italy, Austria and, recently, Slovenia. Slovenian *I. horvathi* is more found at higher altitudes whereas *P. muralis* shows the opposite trend suggesting higher Tp; To test our hypothesis we have preformed experiments in laboratory thermo gradients (20 -50°C; measurements at 11 hourly intervals) with specimen form a sympatric area from the Kočevska region (SE Slovenia). Preliminary results with males indicate that, contrary to the expectations, Tp were slightly higher in *I. horvathi* than in *P. muralis*. However, such differences were only significant in the central hours of the day, hence, *P. muralis* being more variable daily. This pattern, suggesting more importance of thermal tolerance than thermoregulatory set point, is to be tested by further field studies.