



Genética

**P5.**  
**Spectral data suggest local adaptation in**  
***Podarcis muralis*' dorsal cryptic coloration**

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Natural and sexual selection interact in the design of animal colourations. Lizards often show their conspicuous colourations in relatively concealed body surfaces, such as the throat, belly or ventrolateral surfaces, while dorsally colours are less striking and less sexually dichromatic. In lacertids, the design of dorsal colourations has traditionally been explained by its cryptic function. If this interpretation is correct, we should expect to find differences in the



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dorsal colouration of lizards inhabiting ecosystems with substrates of different colours. To test this hypothesis, we used spectrophotometric techniques to obtain objective measurements of dorsal colouration from eight populations of *Podarcis muralis* (Laurenti, 1768) and their respective natural backgrounds (i.e. rocks). We then performed correlative analyses of the three independent variables that describe colour (i.e. brightness, chroma, and hue). Results show that, although there is little variation in the spectral parameters of dorsal colourations, there is a significant positive correlation between lizard and rock colouration in hue ( $r = 0.852$ ,  $P = 0.007$ ), but not in chroma ( $r = 0.068$ ,  $P = 0.873$ ), while the correlation involving brightness is only marginally significant ( $r = 0.667$ ,  $P = 0.071$ ). When we control for body size, the correlation involving hue remains strongly significant ( $r = 0.967$ ,  $P = 0.002$ ). These results support the general hypothesis that lacertid dorsal colouration has been selected for a cryptic function, and suggest that it is a locally adapted trait, at least in hue.