

(P27) **Polychromatic *Podarcis muralis* do not behaviourally hide conspicuousness differences among alternative chromatic morphs**

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The conspicuousness of animal coloration is a relative parameter, which depends on the visual system of the receiver and the environmental context in where they are viewed. The general prediction is that colour signals must evolve to show those chromatic properties that maximize their conspicuousness to primary receivers in their own visual ecosystem. In the ventrally polychromatic (i.e. orange, yellow and white) lacertid *Podarcis muralis*, the use of visual modelling techniques has demonstrated that the different morphs combined with the ultraviolet (UV) ventrolateral spots differ in their conspicuousness; being males sorted in order of conspicuousness as orange, yellow and white. Although these dissimilarities suggest different signal efficacy for each morph (i.e. detectability, discriminability and/or memorability of the ventral coloration and the UV spots), they may be compensated or altered behaviourally.

We quantified the degree of exposure of the lizard ventrolateral and ventral coloration in the field with the aim to confirm that the differences in chromatic contrast may actually result in differences in conspicuousness. We used an exposure classification based on four lizard postures, from a posture in which the ventral surface is completely hidden (posture 1; e.g. when lizards thermoregulate) to a posture in which the exhibition of the conspicuous colour patches is maximized (posture 4; when lizards extend their forelegs and elevate the head, showing the ventrolateral and ventral patches). Controlling for sex, age (categorically assigned by size, body proportions and colour pattern development), colour morph and substrate (because conspicuousness also depend on the chromatic properties of the background in which a colour pattern is displayed), results did not reveal differences in the exhibition of ventral coloration among morphs. Therefore, the different degrees of conspicuousness caused by chromatic contrasts are not attenuated (nor increased) behaviourally in any morph, validating our hypothesis and confirming that the alternative colour morphs incur in different costs and benefits due their detectability by primary receivers of colour signals and other unintended observers (i.e. competitors, predators, prey).

Behaviour, conspicuousness, population polychromatism, signal efficacy, signalling.