



HIGH VARIABILITY OF MAXILLARY AND GULAR COLOURATION WITHIN AND AMONG POPULATIONS OF THE RUIN LIZARD, *Podarcis siculus*, UNDERLINES THE OCCURRENCE OF POLYCHROMATISM

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The ruin lizard, *P. siculus*, is naturally characterized by a marked colouration and a large morphological variability. It is rapidly able to adapt to different ecological features (allochromatism, herbivory, cecal valves, autotomy reduction) and therefore represents an excellent evolutionary model. Most of phenotypic colour variability refers to dorsum, mandibular and throat regions, often also to the ventral area. During the 2014 and 2015 reproductive seasons, we captured, measured and released 70 and 86 lizards respectively (first capture), adding previous records for an overall total of 421 individuals (2012-2015). Lizards were sampled in several parts of the Mediterranean northern Tuscany (North western Italy). For each lizard, we scored the relative amount of colour of the sub-ocular scale (0-100%) as colour pattern profile using Photoshop to extract and process the amount of coloured pixels. Maxillary and throat patterns were also recorded. Each lizard was individually recognized at dorsal pattern using I3Spattern software. We found white, green, yellow-green, orange-green, turquoise-green and white-green patterns. Presence of different colouration patterns ($\geq 2\%$ occurrence of more than one colouration/each sampled population) was constant throughout the considered areas. For instance, white maxilla was present in five out of six sites, common in two; green was present in six sites, common in two; yellow was present in six sites; yellow-green in three sites. Sexual size dimorphism (SSD) was marked and significant at a biometrical level, and SSD does exist also among some areas. Colouration patterns, however, were similar between sexes, size and age. Our preliminary results highlight a marked polychromatism in *Podarcis siculus*. In areas where the species is in contact with highly polymorphic species (e.g. *P. melisellensis*) lizards actually display full yellow and orange ventral colouration (Slovenia), while in other areas the pattern appears much less marked (as in our Tuscanian sample).