



## ORAL COMMUNICATIONS

### HABITAT RELATED DIFFERENCES IN MORPHOLOGY AND WHOLE-ORGANISM PERFORMANCE IN THE GENERALIST LIZARD *Podarcis bocagei*

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If morphological variation is tightly related to habitat use, then differences in morphology should affect fitness through their effect on performance within specific habitats. In this study, we investigated intraspecific ecomorphological variation in the generalist lacertid *Podarcis bocagei* by examining populations exploiting two different habitats: agricultural walls vs. sand dunes, which reflect saxicolous vs. ground-dwelling habits. In the laboratory, we recorded morphological traits, potentially relevant for locomotion and bite performance. We quantified locomotor performance by measuring sprint speed, climbing capacity, maneuverability, and bite force. Based on these measurements, we used univariate and multivariate statistics to examine whether lizards inhabiting the two habitat types differed in morphology and whole-organism performance, and also investigate the association between these two blocks of traits. Our results indicated that lizards from walls and dunes differed in total body size, as well as relative head height. We found significant differences in climbing speed across habitats, where the individuals from walls were better climbers. Finally, bite force was significantly different between habitats where individuals from dunes bite harder than those from walls. A significant association existed between (head) morphology and bite force, but surprisingly, we did not find a significant association between (limb) morphology and locomotor performance. Our results suggest that intraspecific studies are helpful to detect microevolutionary changes.