

ORAL COMMUNICATIONS

CHEMICAL PREDATOR DETECTION IN THE DALMATIAN WALL LIZARD (Podarcis melisellensis)

Charlotte VAN MOORLEGHEM, Katleen HUYGHE and Raoul VAN DAMME

Laboratory for Functional Morphology, Department of Biology, University of Antwerp, Universiteitsplein 1, 2610 Wilrijk, Belgium, Email: charlotte.vanmoorleghem@uantwerp.be

Today, many ecosystems are pressurized by the introduction of new predator species. Prey populations that fail to adapt and overcome their naïveté towards these predators may go extinct. The first step in overcoming naïveté is to develop the ability to recognize the predator as a threat. To predict the effect of predator introduction on prey populations, it is therefore important to understand how the sensory systems of local populations are used to recognize risky situations, such as predator presence. In this study, we tested the ability of the Dalmatian wall lizard *Podarcis melisellensis* (Braun, 1877) to detect and recognize both native and introduced predators as a threat. The focus was on the chemical senses of *P. melisellensis* as the genus *Podarcis* is assumed to use these for predator detection. We compared the lizards' behavioural responses to chemicals obtained from predator species that ranged from specialist saurophagous to generalists and opportunists. The non-native predators were introduced either 2000 years ago or as recent as 80 years ago. At least some island populations do not have the ability to recognize predators through the chemical modality. These lizards are, therefore, deprived of a sense that enables them to detect a threat when the predator is beyond hearing or viewing distance. This could imply vulnerability towards potential invasive predator species.