

## Abstracts of talks in alphabetical order by first author

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### Lacertid lizards as bioindicators of pesticide exposure and toxicity in agricultural areas

Lizards are among the least studied groups in ecotoxicology, and despite a recent increase in the number of studies, there is still a lack of knowledge regarding their response to environmental contamination. In Europe, lacertid lizards have been identified as potential model species for reptile ecotoxicology. The main question of our project was to assess if highly abundant lacertid lizards belonging to the genus *Podarcis*, could be used as bioindicator of pesticide exposure and toxicity in agricultural areas. To achieve this end, we used a three-stage tiered approach. The first tier took the form of a field survey to document both exposure and population endpoints of lacertids occurring in areas of intensive pesticide and usage and areas of negligible pesticide usage. The second tier was a mesocosm study in which naïve lizards were exposed to pesticides in a controlled experiment. Finally, the third tier included a laboratorial approach to the effects of one of the most common insecticides used worldwide, chlorpyrifos. We assessed pesticide impact using a comprehensive set of endpoints applied at different levels of biological organization, including behavioral, physiological, biochemical and histological biomarkers. The field work confirmed the difficulty of differentiation between the effect of contaminants and other (local) factors at the population level but our results suggest a difference in the metabolic activity between animals from reference and exposed locations. Animals from exposed fields seem to be in worst body conditions and in a deficitary energy balance when compared to animals from the reference locations. The results of the mesocosm study validated the correlative data obtained in the field survey. While the laboratory approach showed that environmentally relevant dosages of chlorpyrifos can affect *P. bocagei*. According to our data, *P. bocagei* seems to be a suitable indicator of sub-lethal exposure to pesticides.

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### Syntopic populations of *Darevskia* biparental species in Armenia and Nagrono-Karabakh

Range overlap between species even at local scales is a defining trait in the biogeography of the Caucasian rock lizards of the genus *Darevskia*. Syntopy between populations of two biparental species is remarkable, especially when they are parental contributors of parthenogenetic species. The detailed analyses of such contact zones revealed that when biparental species *D. valentini* and *D. nairensis* are in syntopy, no hybrid forms arise. This is likely due to their different