



POSTERS

Behavioral thermoregulation in the Bosk's Fringe-toed Lizard (*Acanthodactylus boskianus*) in a polluted coastal area in southern Tunisia

Intissar NASRI¹, Josabel BELLIOURE², Abdessalem HAMMOUDA¹, Foued HAMZA¹ and Slaheddine SELMI¹

1. Department of Life Sciences Faculty of Sciences of Gabes, University of Gabes, Cité Erriadh, Zrig, 6072 Gabes, Tunisia, Email: intissar.nasri@yahoo.com

2. Department of Life Sciences, Ecology Section, University of Alcalá, Alcalá de Henares, Madrid, 28871, Spain

Body temperature has a major influence on the biochemical, physiological and behavioural processes and the overall survival of ectotherms. When a habitat is altered as a result of natural or anthropogenic influences, the available temperatures in the habitat can change, thus affecting an animal's ability to thermoregulate. Changes in thermal regulation in lizards as a result of pollution have never been investigated. Here, we studied thermoregulation in response to pollution in a population of Bosk's fringe-toed lizards *Acanthodactylus boskianus*, a common lacertid in the coastal area of the gulf of Gabès in southern Tunisia. Our approach was based on the comparison between lizards living close to a factory complex with those living 20 km faraway. Lizards were tested in a thermal gradient under laboratory conditions to determine preferred body temperature, patch selection for basking, and heating and cooling rates. Body temperature of *A. boskianus* in the field was 36.6 ± 0.38 °C (mean \pm SE), with no significant difference between sites. However, the preferred body temperature was higher for lizards at the polluted area compared to the ones at the non-polluted sites. Moreover, lizard living in the polluted area heated faster, and cooled slower, and they also spent significantly more time basking at the warmer patch. Overall, our results suggest that *A. boskianus* produces a fever as a response to contamination. The possible consequences of such a response on growth, size, reproduction, susceptibility to predation and other fitness parameters need to be investigated.