



ORAL COMMUNICATIONS

HISTORY DOES MATTER: THE IMPORTANCE OF ANTHROPOGENIC DISTURBANCES IN HABITAT USE OF THE ENDANGERED *Lacerta media israelica*

Roy TALBI^{1,2} and Ido IZHAKI¹

¹ *The Department of Evolutionary and Environmental Biology, Faculty of Natural Sciences, University of Haifa, Israel, Email: talbion@gmail.com*

² *Israel Nature and Parks Authority, Israel*

Mediterranean habitats in the southern Levant have been exposed to various anthropogenic activities since the beginning on the Holocene. Past traditional human activities such as grazing, cutting and fire have shaped the landscape and modified the ecology of plant and animal species. These activities have changed in recent decades due to modernization processes and management policies. Mediterranean landscapes in northern Israel demonstrate well the modifications within the vegetation structure of habitats, usually from open to close vegetation shape. These processes may help us in understanding the indirect effects of habitat structure on fauna diversity, and to promote prescribed management towards species conservation. Here, we examined the ecology of a specialist and locally endangered green lizard (*Lacerta media israelica*) that became either extremely rare or extinct throughout most of its historically known distribution in the mountainous woodlands of the country. Field surveys of the green lizard and habitat structure analysis were performed in various sites in the Carmel, Galilee and Golan mountains since 2003 until 2015. Over 800 observations were recorded, mostly in the Upper Galilee and the Golan Heights, in addition to remnant sub-populations in the Carmel and Lower Galilee mountains. Lizards significantly preferred sites with heterogeneous vegetation structure, composed of woods, shrubs and meadows (maquis-garrigue). Such habitats are result of anthropogenic activity that controls the woody vegetation (grazing, cutting, agriculture and recreation sites). Traditional activity has dominated Mediterranean landscapes in the past thus increasing the complexity of habitats and perhaps influencing on the typical high species diversity. Our results suggest that recent modifications in habitat structure due to modern management have critically reduced the historical distribution of the studied species. The significant relationship between habitat heterogeneity in disturbed sites and the presence of green lizards emphasizes the need for suitable management in relatively undisturbed Mediterranean environments.