

Review of the lizard fauna of Jordan

(Reptilia: Sauria)

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Abstract. The lizard fauna of Jordan is very diverse and forms 55.5% of the terrestrial herpetofauna of the country. Lizard species of Arabian origin form the highest percentage (43%) of the lizards, followed by Saharo-Sindian (35%), Palaearctic (20%) and only 2% with Afrotropical affinities. 69.1% of the lizard species inhabit two ecozones: Badia (Eastern Desert); and Wadi Araba and Wadi Rum. The Badia may form the focal point for the evolution of certain *Acanthodactylus* species. Jordan forms the southernmost limit of the distribution of some Palaearctic species (i.e. *Lacerta media*, *L. laevis*, *Pseudopus apodus*) and they inhabit the Mediterranean ecozone. The presence of diverse habitats in Jordan allowed certain allopatric congeneric species of the genus *Ptyodactylus* to live in isolation from one another. Southern Jordan and Wadi Rum are part of the Levantine land bridge and act as a “biogeographical filter”. Most of the species found in Wadi Rum are of Arabian affinities and their distribution does not extend towards the west.

Key words. Jordan, Lizard fauna, zoogeography, biodiversity and conservation.

Introduction

Jordan is a meeting point of three zoogeographical realms (Palaearctic, Oriental, Afrotropical). The biotic configuration of the region has been modified by extensive plate tectonics which split Jordan and Arabia from Palestine and Sinai and the latter from Africa. Southern Jordan is considered to be part of the Levantine land bridge (POR 1987). Jordan is divided into four ecozones characterized by a great variety of plant communities, climatic conditions and geomorphological formations (DISI 1996). Moreover, the Eastern Mediterranean region has witnessed intensive geo-biological events that have had palaeobiological effects (TCHERNOV & YOM TOV 1988).

Fifty-six species and subspecies of lizards, belonging to seven families and 26 genera, occur in Jordan. Previous studies have dealt mainly with systematics, providing limited information on lizard ecology and biodiversity (DISI et al. 2001). The aim of this paper is to summarize the biodiversity and ecology of the lizards of Jordan, to investigate resource partitioning among species inhabiting different habitats, and to report on the effect of both biotic and abiotic factors on their distribution.

Material and methods

Specimens were collected between May 1977 and September 2008. The bulk of this collection is deposited at the Department of Biological Sciences, Jordan University Museum, Amman; the Jordan Natural History Museum; Yarmouk University-Irbid; and Jordan University for Science