ABSTRACT

The Arabian Peninsula represents a bridge between three continents and two major zoogeographic regions, the Palearctic and Afrotropical (Ethiopian). It is well known for its richness and endemicity not only among geckos, but among squamate reptiles in general. Besides impressive endemic species located in the mountains, there are some, widely distributed across the entire Arabian Peninsula (pan-arabian distribution) and in terms of research they remain neglected. Among Arabian geckos, the genus *Bunopus* are an excellent example, whose systematics and taxonomy are quite problematic, albeit they are distributed across the entire peninsula.

In order to answer the question of possible cryptic diversity of these geckos in the Arabian Peninsula, phylogenetic position of more than 80 samples covering the vast part of their distribution range has been reconstructed based on two mitochondrial (12S rRNA and COI) and two nuclear markers (RAG2 and c-mos). Haplotype networks were reconstructed from nuclear markers in order to show genealogical relationships.

Results of the phylogenetic analyses presented herein show that cryptic diversity in the Arabian Peninsula is smaller in comparison to the one that was uncovered in the Iranian Plateau. Almost entire Arabian Peninsula is inhabited by two lineages only, which share alleles in both nuclear markers. Genetic homogeneity of so-called Arabian clade across the whole peninsula could be explained by high level of adaptation to arid environments together with low habitat preferences of these geckos and by absence of geographic barriers which allow them to spread across peninsula as well.

The work presented herein is the most detailed in terms of unprecedented taxon sampling across the entire Arabian Peninsula and as its author I believe that the work will be a step forward to answer the question of the taxonomic validity of *Bunopus blanfordii* and the whole systematics of the genus *Bunopus*.

Key words: Gekkota, Palearctic naked-toed geckos, biogeography