



Special Issue Reprint

## Reptile Evolution and Genetics - Special Issue Dedicated to the Memory of Prof. Teresa Capriglione

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This Special Issue contains 12 articles evidencing the state of the art of research on the evolution and genetics of reptiles. One of the main lines of research concerns the advancements in phylogenetic studies based on the more recent molecular methods and the developments in whole genome sequencing. Among the papers, topics related to the analysis of genome composition with special reference to the presence and evolution of repetitive DNA and the control of gene activity are of interest. Examples of the different roles played by chromosome variability in various evolutionary models are reported. Some of the papers regard certain peculiarities of reptiles, such as meiotic mechanisms in parthenogenetic species and the transition between genetic and environmental sex determination. Besides studies on chromosomes and the nuclear genome, two papers also investigate mitochondrial genome evolution. Particularly promising for future studies is the potentiality gained by the results obtained so far from research into the evolution and genetics of reptiles that has also been used for an intriguing tentative motion to reconstruct dinosaurs' karyotypes. The papers from this Special Issue highlight that reptiles are a good model for studying the genetic and molecular basis of certain key moments in vertebrate evolution



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