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MORPHOLOGY *VERSUS* MOLECULES – ON THE CONFLICT BETWEEN PHYLOGENETIC HYPOTHESES IN SQUAMATE REPTILES

Summary

Squamates are one of the largest groups of extant vertebrates. For many years, their systematics seemed to be well established, yet comprehensive molecular genetics analyses conducted in the XXI century suggest completely different picture of the squamate phylogeny. Traditional morphological data suggest that squamates comprise two main groups – iguanians and scleroglossans. However, molecular data imply that iguanians are deeply nested within Scleroglossa and most closely related to squamates of strikingly different morphology such as monitor lizards, slow worms and snakes. This would suggest a huge amount of convergence either in morphology or gene sequences between many groups of squamates and their closest relatives.

Key words: paleontology, reptiles, squamate evolution, systematics