

A lizard from Baltic amber (Eocene) and the ancestry of the crown group lacertids

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An almost complete lizard specimen discovered from the Baltic amber of middle Eocene age is described and considered conspecific with the first Baltic amber lizard Succinilacerta succinea (Boulenger, 1917). The new specimen demonstrates that the typical lacertid morphotype was fully developed by the middle Eocene. This is in conflict with a possible derivation of all the extant lacertids from a common ancestor of no earlier than Oligocene age based on the recent albumin-immunological and karyologic analyses using molecular clock methodology. Outgroup analysis of the lacertid pileus characters is applied to reconstruct the order and rate of appearance of character states during the pre-Oligocene section of phylogeny of the lacertid clade theoretically beginning by about the Late Jurassic. Two synapomorphies are proposed for the whole lacertid clade, including Eocene Plesiolacerta: frontoparietal scales largely overlapping the parietal table with a corresponding central position of the interparietal, and presence of the occipital. Plesiolacerta is the only stem lacertid known. Succinilacerta is considered a member of the crown lacertids on the basis of two other synapomorphies: an integration of parietal scales and a development of early ontogenetic control of the pileus pattern. Parietal integrity is suggested to be sensitive to animal size. Pileus fragmentation may be primary or secondary.

Key words: Amber inclusions, Eocene, Lacertidae, Scincomorpha, Squamata, Succinilacerta.

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