

A new family and two new genera from Avion, Northern France, confirm the high Moscovian (late Carboniferous) diversity of the insect superorder Archaeorthoptera

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The new archaeorthopteran family Archaeogeraridae, based on *Archaeogerarus schubneli* gen. et sp. nov., is described from the Moscovian of Avion. It has several unique wing venation characters allowing to separate it from the other groups of this superorder, viz. a vein RP separating from RA very close to wing base and closely parallel to it; M shortly fused with RP; CuA+CuPa simple and straight; and CuPb branched. This last character is convergently present in a few Palaeozoic Panorthoptera, a feature of great interest for a future phylogenetic analysis of the whole superorder. *Avionxixia gui* gen. et sp. nov., second Cnemidolestidae from the Moscovian of Avion, is described and illustrated. It shares numerous characters with the Chinese Namurian genus *Xixia* and the European (Germany and France) Moscovian genus *Piesbergopterum*, suggesting possible phylogenetic affinities between these three genera. It is mainly separated from these two genera by the costal area much narrower than the subcostal one and the presence of only one posterior branch of the anterior branch of MP+CuA+CuPa. This new taxon confirms the high diversity of the Cnemidolestidae during the late Carboniferous.

Key words: Insecta, Polyneoptera, Cnemidolestodea, Archaeogeraridae fam. nov., forewing venation convergences, Carboniferous, France.

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