

LATE PALEOZOIC TERRESTRIAL ARTHROPOD FAUNAL AND FLORAL SUCCESSIONS IN THE PARANÁ BASIN: A PRELIMINARY SYNTHESIS

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Abstract

The stratigraphic distribution of the Late Paleozoic (Late Carboniferous – Late Permian interval) terrestrial arthropod fauna and flora in the Paraná Basin (southern Brazil) is presented. The main phytophagous insects recorded in the Paleozoic strata of the basin are related to plecopterid (Paraplecoptera), orthopterid (Protorthoptera), hemipteroid (Homoptera) and endopterygote (Coleoptera) groups. Significant insect folivory was only recorded in megaphyllous foliage of glossopterids. An integration of paleobotanical, paleozoological, stratigraphic, paleoclimatological and paleoenvironmental data provides some evidence for the evolution of plant-arthropod interactions in the fossil record of the Paraná Basin. Plecopterid and orthopterid were replaced by hemipteroid and coleopterida as the main groups of phytophagous insects associate to the floras of the basin during the Permian times. This replacement was apparently linked to changes in climatic conditions, from the glacial to the semiarid and warmer climate.

Key-words: Plant-arthropod succession, Plant-insect associations, *Glossopteris* Flora, Paraná Basin, Late Paleozoic.