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Helicosporous aero-aquatic hyphomycete from the Neogene of the Gray Fossil Site, USA

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We report fungal conidia of helicosporous aero-aquatic hyphomycete found during a survey of palynological slides from samples collected from Neogene deposits at the Gray Fossil Site (Tennessee, USA). They differ from conidia of hitherto described fossil species of helicosporous fungi, therefore, a new fossil-species *Helicoonites grayensis* G. Worobiec & E. Worobiec sp. nov. is described. *Helicoonites grayensis* G. Worobiec & E. Worobiec sp. nov. can be compared to those modern genera of helicosporous fungi that are characterised by three-dimensional, barrel-shaped, hollow conidia and are classified as helicosporous aero-aquatic hyphomycetes. In particular, it resembles species belonging to the *Helicoon* and *Helicodendron* genera. The ecology of modern helicosporous aero-aquatic hyphomycetes and the presumable palaeoecology of the fossil *H. grayensis* G. Worobiec & E. Worobiec sp. nov. are discussed.

Key words: Fossil fungus, aero-aquatic hyphomycetes, palaeoecology, Early Pliocene, North America.

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