



Candela Blanco Moreno is a PhD student in Paleobotany at Universidad Autónoma de Madrid. Her research is focused on Mesozoic plants, especially ferns from the locality of Las Hoyas (Cretaceous of Cuenca, Spain). She will be hosted at UMR AMAP until April to work on fossil fern anatomy and architecture.

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Salle 44, Bâtiment PS1, CIRAD-UMR AMAP,
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Reconstructing the Mesozoic fern *Weichselia reticulata*

presented by

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ABSTRACT

The floras from the Early Cretaceous (Mesozoic Era, approximately 145 to 100 million years ago) of Europe were very frequently dominated by ferns. These plants are especially diverse in some fossil sites and fragments of this group are generally dominant in the floras. *Weichselia reticulata* was one of the most common ferns and had a worldwide distribution at that time, making it a key species to understand the landscape.

Material of this fossil fern from Las Hoyas (Cuenca, Spain) and Bernissart (Mons Basin, Belgium) is being studied in order to verify the reconstructions that have been proposed to date. Both are exceptional fossil sites, where fossils of this species with essential information have been recovered. Large pinnae and nearly complete pedate fronds collected from Las Hoyas have been used to study the architecture of the *Weichselia reticulata* frond by morphometric analysis. The variation of a set of measurements (pinnae insertion angle, distance between pinnae, first segment length and rachis width) along the pinnae has been analysed, enabling a more precise understanding of frond growth and morphology. The habit and phyllotaxy of this fern will be studied at AMAP from CT-Scan images of stems collected from Bernissart fossil site. Previous reconstructions vary, but agree on an erect stem where large petioles supporting the up to 1.5 m fronds and aerial roots are borne.

KEY WORDS: fossil plants; ferns; Mesozoic; leaf; architecture; anatomy

Animated by:

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