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New Early Cretaceous fossil plants from a new fossil-lagerstätte within the lithographic limestones of Campania (South Italy).

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Five localities, new for the finding of fossil plants, have been studied among the Campania lithographic limestones (Southern Italy). They range in age between Aptian to Cenomanian.

The general composition of the flora is marked by the dominance of conifers, mainly Cheirolepidiaceae. All the localities are also characterized by the presence of Angiosperms. Some taxa are found for the first time in Italy. Organic matter from plants is often present and permits the description of epidermal structures. Where the cuticle is not present it was possible to make peel directly on the plant impressions to observe the epidermal cells organization. This is of great importance for paleoecological considerations because the cuticle structure is in direct relation with the environment. Some plants like *Frenelopsis* are sometimes preserved with very long axes (more than 50 cm) allowing the hypothesis of subautochtonous habitat. It is interesting to note the presence of Angiosperms, aquatic and terrestrial. Their presence is probably related to the fluctuation of the sea level and to the alternance between saline/brackish water and fresh water environment with disturbed conditions. The conifers flora shows xerophytic adaptation: protected stomatal apparatus, cells with papillae, guards cells in

a very deep pit, short leaves with scarious margins (probably collecting water during the night). Some plants have also the possibility to lost some axes and leaves during period of dryness.

Among these outcrops, the new Cusano Mutri fossil site shows the higher diversity in its flora composition, being present: *Pseudotorellia* sp., *Brachyphyllum* aff. *obesum*, *Brachyphyllum* aff. *punctatum*, *Brachyphyllum punctatum* ?, *Brachyphyllum* sp., *Pagiophyllum* aff. *pedreranus*, *Pagiophyllum* sp., *Araucarites* aff. *pedreranus*, *Nageiopsis* sp., *Pseudofrenelopsis parceramosa*, *Pseudofrenelopsis* sp., *Cupressinocladus* sp., *Podozamites* sp., *Montsechia vidali* and two new species: *Frenelopsis* nov. sp., *Watsoniocladus* nov. sp.

The fossil site seems to be well comparable with the Spanish site of Montsech for some of their conifers. The genus *Montsechia* represent the first finding outside the Iberian Peninsula.

In some of the fossil plants localities aquatic and terrestrial animals are present too. Their good preservation assume to have been fossilized under anoxic conditions in lagoons or small restricted basins.

The general composition of the flora well fits with that of the Euro-Sinian province of the Northern Hemisphere. The absence of typical floristic components of the Gondwana continent can be noted.

In conclusion specificity of the localities regarding the well known classical fossillagerstätten from Cerin (Upper Kimmeridgian, France), Solnhofen (Lower Portlandian, Germany), Montsech (Albian/Cenomanian, Spain) is noted.

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