



9th E P P C
PADOVA 26-31 AUGUST 2014 - ITALY

ABSTRACT BOOK

9th European
Palaeobotany - Palynology
Conference

26-31 August 2014

Padova - Italy

A detailed photograph of fossilized plant material embedded in a light-colored, textured rock matrix. The fossils include a prominent, dark, vertically oriented stem with branching structures, and several large, fan-shaped or circular structures that appear to be fossilized leaves or spores. The colors range from dark brown and black for the fossilized plant parts to light tan and beige for the surrounding rock matrix.

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within the range from Lebedyan RS to Turgenevo Beds (inclusive) of Plavsk RS of the Russian Plate. Author is grateful to Pavel Beznosov for samples and co-operation.

A new methodological approach on *Laurinoxylon* and the importance of the oil &/or mucilage cells

TALK IN SESSION S5

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Wood anatomy of several specimens of *Laurinoxylon* from the Tertiary of southern part of Lesbos Island (Greece) Kadaň - Zadní Vrch Hill and Jáchy-mov (Czech Republic) and Ipolytarnóc (Hungary) was observed, mainly with respect to the type and distribution of idioblasts. These observations together with the published descriptions and data from the InsideWood Database, both modern and fossil, gave birth to a new methodology focused on the identification and classification of *Laurinoxylon*. Our observations on the exact occurrence of the oil &/or mucilage cells (in connection with the ray parenchyma, or with the vertical strand parenchyma or isolated from parenchymal tissues and embedded between the fibers or several combinations) allowed us to make four main groups of *Laurinoxylon*. On the other hand, presence of marginal bands of axial parenchyma, aliform to aliform-confluent paratracheal parenchyma, rays higher than 1 mm, exclusively homocellular rays, ring-porous wood or absence of idioblasts (oil &/or mucilage cells) can exclude a fossil lauraceous wood from being attributed to *Laurinoxylon*. In this context, the existence of crystals and SiO₂ along with the occurrence of crystalline masses inside the fibers of some species was also highly evaluated, as also the observation of septate fibers. The newly proposed methodology on *Laurinoxylon* shows that taxonomical information, palaeobotanical data, and exact botanical affinities can help to classify it, but also to exclude many fossil woods from that fossil genus which used to be treated as a 'waste bin', which surely overestimates its importance in the Cenozoic fossil wood record.

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Gavdos Island palaeoflora: A newly recovered late Neogene flora of the Eastern Mediterranean (Greece)

POSTER IN SESSION S22

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The study of more than 100 leaf impressions from the Metochia section, Gavdos Island, Greece, revealed a recently recovered late Miocene palaeoflora from the southernmost part of Europe. Fossiliferous strata – sapropels – of early to middle Tortonian age (9.6–9.1 million years b. p.) yielded a plant assemblage consisting of 3 conifers and ca 30 fossil species of angiosperms belonging to subtropical to warm temperate evergreen or deciduous shrubs and trees including legumes. The number of the identified specimens was sufficient to allow an application of several palaeoenvironmental techniques (phytosociological approach and Integrated Plant Record analysis, Leaf Margin Analysis technique, CLAMP analysis and Coexistence Approach). The results obtained from the Gavdos palaeoflora expand our knowledge about the late Neogene floras of the Mediterranean and complement previous studies recently accomplished in southernmost Greece, namely in Crete (Makrilia, Vrysses and Pitsidia).

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