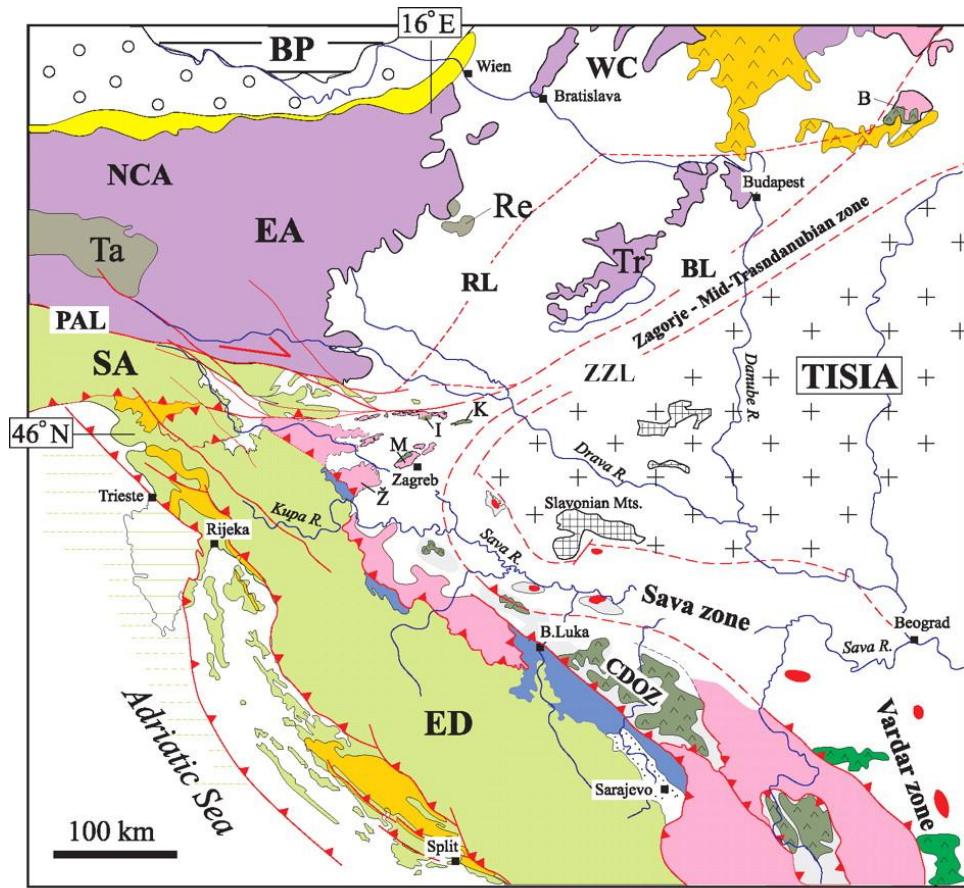


PENNSYLVANIAN FLORA IN CROATIA

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EXTERNAL DINARIDES (ED) & SOUTHERN ALPS (SA)

- Imbricated Adriatic plate margin units largely composed of Palaeozoic basement and Mesozoic carbonate platform rocks
- External Dinarides flysch belt
- Undeformed Adriatic foreland

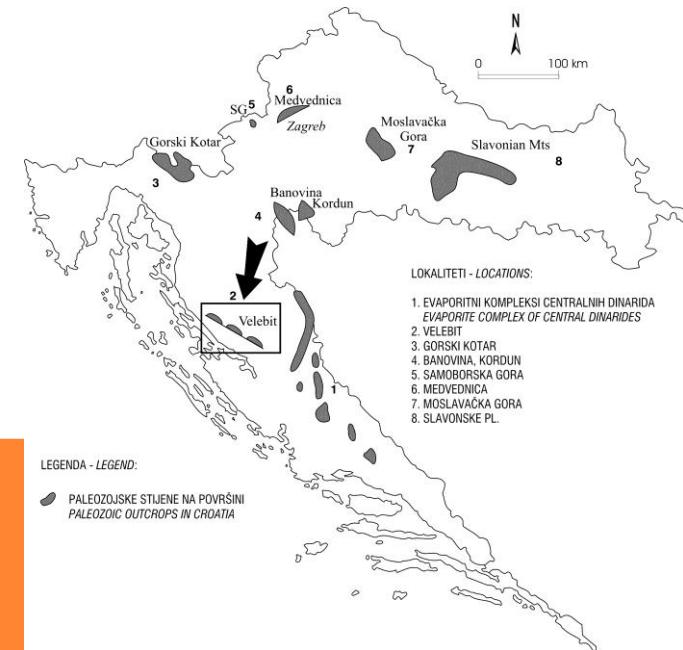
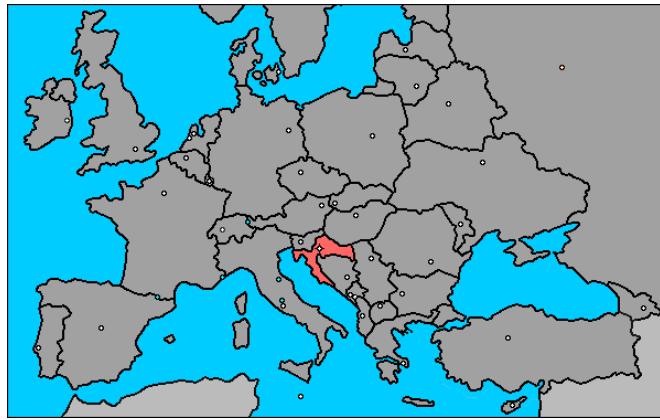
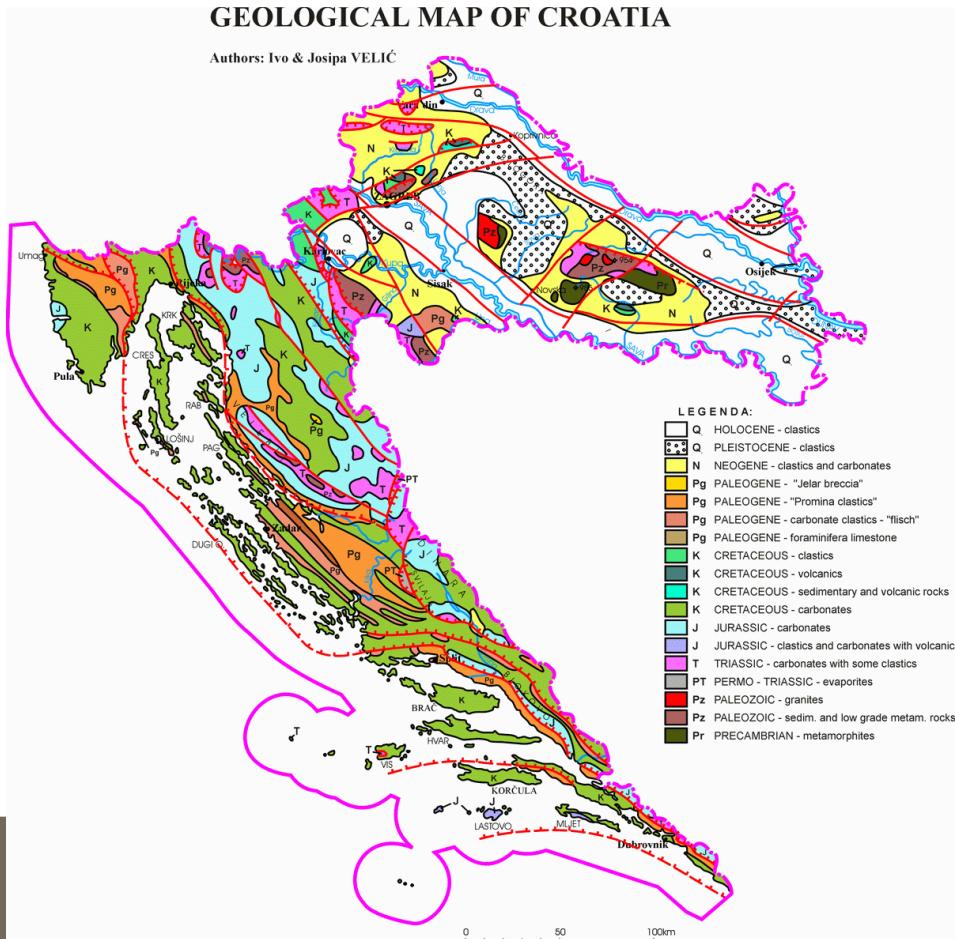
EASTERN ALPS (EA) & WESTERN CARPATHIANS

- Austroalpine units: Northern Calcareous Alps (NCA)
- West Carpathians (WC) and Transdanubian Range (Tr)
- Penninic units: Tauern window (Ta) & Rechnitz (Re)
- Penninic Alpine-Carpathian flysch belt & Helvetic units
- Alpine-Carpathian foredeep
- Neogene volcanic rocks

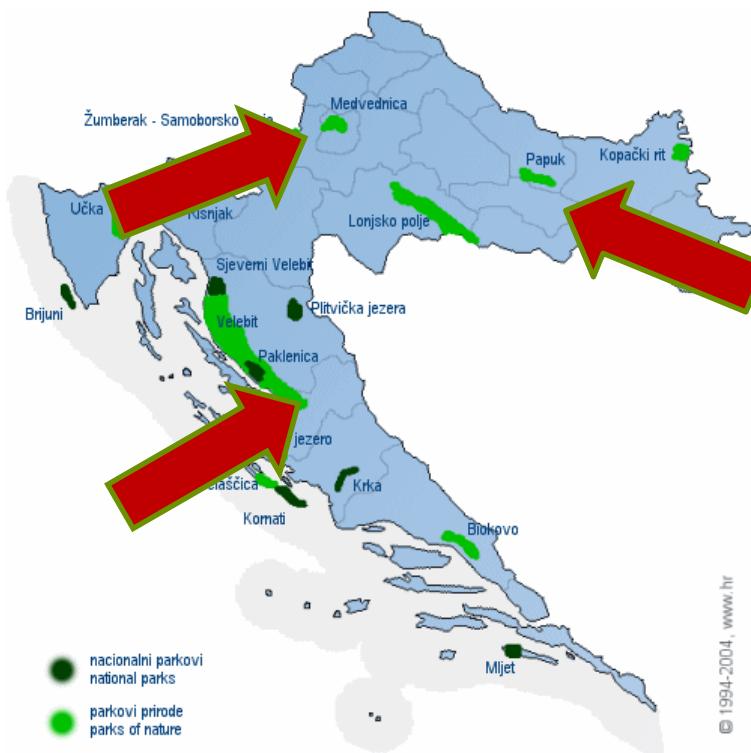
INTERNAL DINARIDES

- Bosnian flysch zone
- Adriatic plate margin units involved in Late Jurassic ophiolite obduction
- Central Dinaride ophiolite zone (CDOZ)
 - (a) Ophiolite massifs
 - (b) Jurassic ophiolitic mélange
- K, I, M, Ž - Kalnik, Ivanščica, Medvednica and Žumberak Mts.
- Sava-Vardar zone
 - (a) Cretaceous-Tertiary granodiorite intrusions and
 - (b) Ophiolite massifs
- Neogene-Quaternary fill of the Pannonian basin
- TISIA**
 - (a) covered by Neogene-Quaternary deposits & (b) exposed on the surface
- EUROPEAN FORELAND**
- Bohemian Promontory (BP)

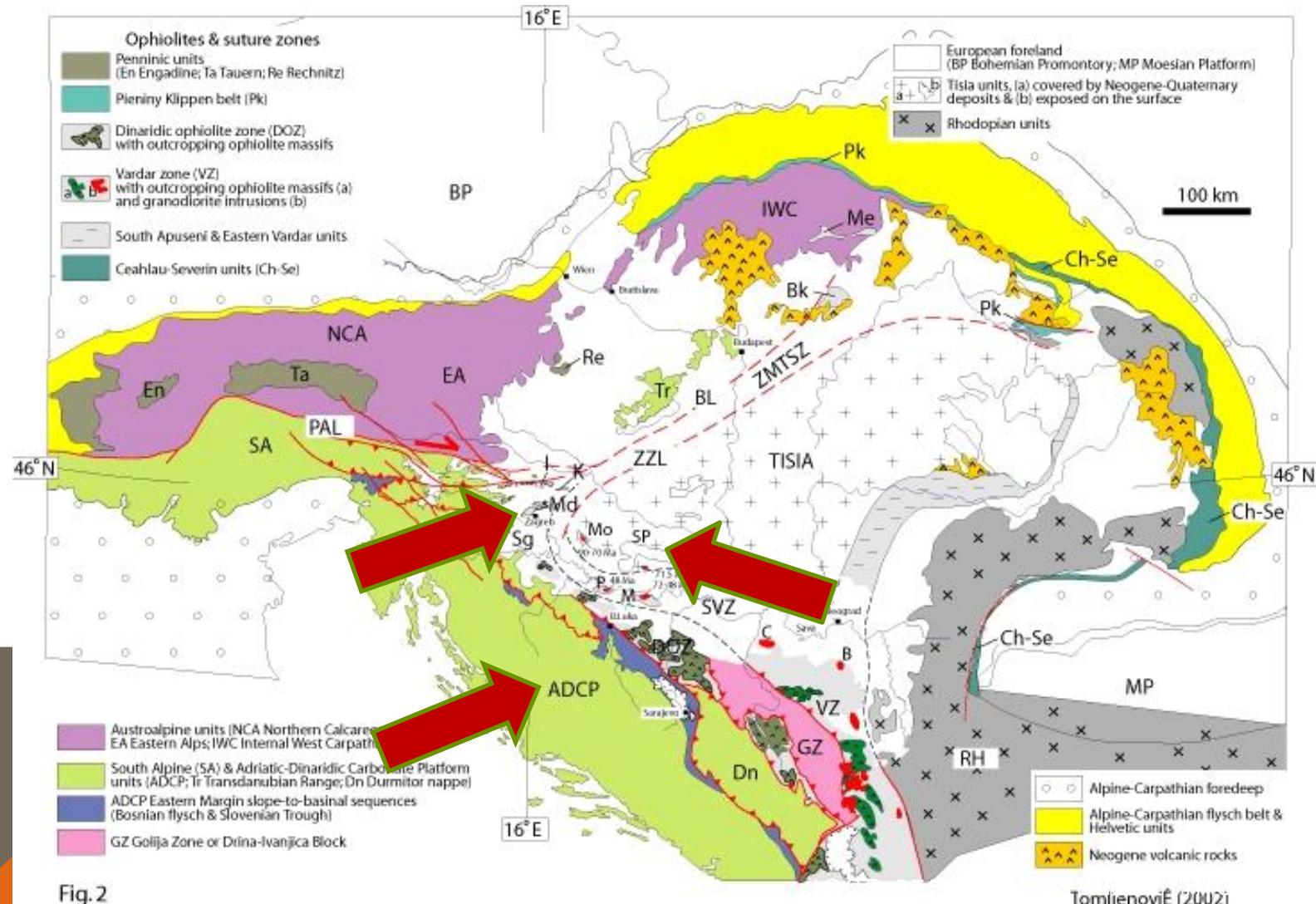
<http://sp.lyellcollection.org>



CARBONIFEROUS LAND FLORA SITES

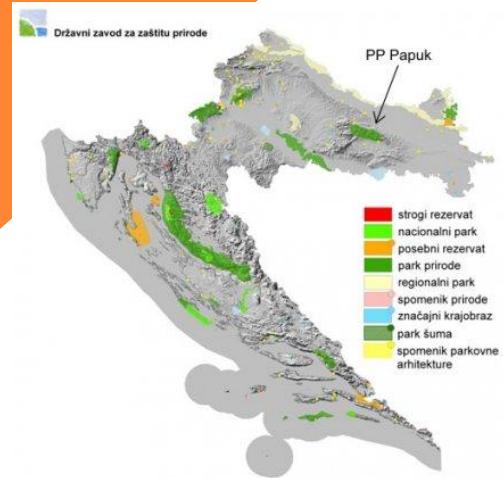


CROATIAN TECTONIC UNITS



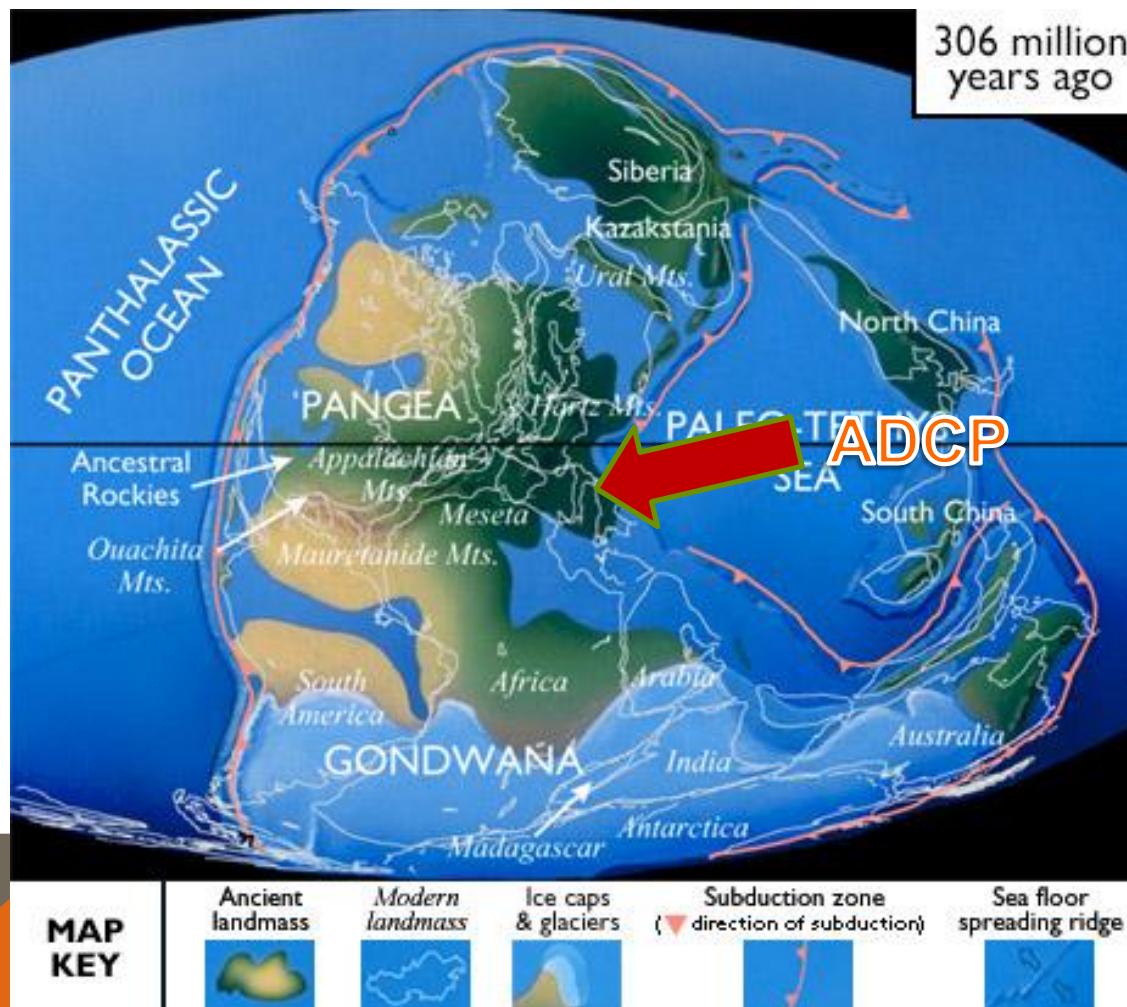


PAPUK MT.



- Low-grade metamorphic rocks
- Westfalian land flora:
Asterophyllites, Pecopteris, Imparipteris, Cordaites
- Palynomorphs: *Calamospora, Cordaites, Cyrtospora*
- References:
Brkić, et al., 1974
Jerinić et al., 1994

CARBONIFEROUS PALEOGEOGRAPHY



SAMOBORSKA GORA MT.

- **Marija-gorica Mt.**

Late Carboniferous clastic deposits with *Calamites cf. carinatus* (JENKO, 1944).

- **Samoborska gora Mt.**

Late Carboniferous dolomites and clastic deposits with ore deposits (e.g. copper, gypsum)

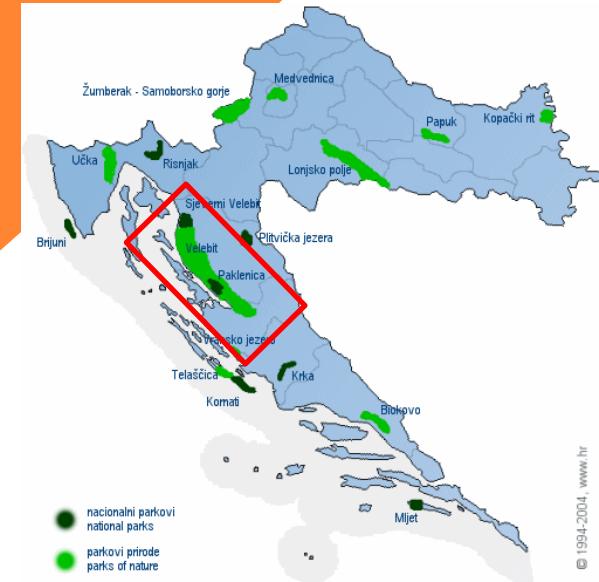
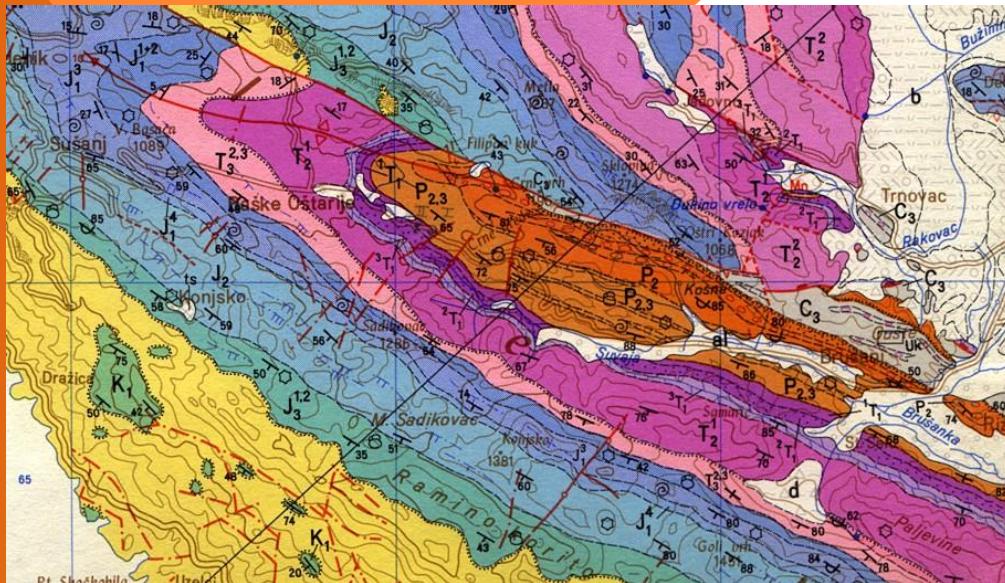
Land flora – *Sigillaria* (HERAK, 1956)



VELEBIT MT.



- In most places continuous marine deposition from the Pennsylvanian (Moscovian) to the Late Permian and Triassic.
- In Medak area Carboniferous swamp deposits with land flora: *Alethopteris bohemica*, *Pecopteris feminaeformis*.
- Němejc, F. (1936).



REFERENCES

- BRKIĆ, M., JAMIČIĆ D. & PANTIĆ, N. (1974): Carboniferous deposits in Mount Papuk (NE Croatia). *Geol. Vjesnik* 27, 53-58, Zagreb.
- HERAK, M. (1956): Geologie des Samoborer Gebirges. *Acta geol.* 1, 49-73, Zagreb.
- JENKO, K. (1944): Geoložki rad na listu Samobor. *Vjestnik Hrv. Geol. Zavoda* 2/3, 19-23 Zagreb.
- JERINIĆ, G.; PAMIĆ, J.; SREMAC, J. & ŠPANIĆ, D. (1994): Palynological and Organic-Petrographic Data on Very Low- and Low-grade Metamorphic Rocks in the Slavonian Mts. (Northern Croatia). *Geol. Croat.* 47/2, 149-155, Zagreb.
- NĚMEJC, F. (1936): Contribution to the knowledge of the Carboniferous flora of the coal measures at the North-eastern foot of the Velebit Mts. *Bull. int. Acad. Sci. Boheme*, 1-16, Prag.
- SREMAC, J. (2006): Carboniferous of Croatia. IUGS – SCCS, 21 p., Ljubljana.

*THANK YOU FOR YOUR
ATTENTION!*



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