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INDICATIVE VALUE OF NON-POLLEN PALYNOMORPHS (NPPS) FROM PLIOCENE SEDIMENTS OF DOMBAYOVA GRABEN-CENTRAL ANATOLIA

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The aim of this study is to perform detailed palynological analysis of coaly sediments from the D-97 well, as well as the indicative value of non-pollen palynomorphs of the studied deposits. Moreover, its Ostracoda fauna is also described and interpreted for paleoenvironmental approaches.

Dombayova is one of the basins that hosted by Western Anatolian Extension Zone. D-97 well is located in the center of Dombayova Basin. It has a 90 meters thickness of coal with some alternations of siltstone and mudstone. Pliocene aged coaly sediments derived from D-97 drill core, were deposited in lacustrine to riparian environment as shown by relatively high abundance of freshwater algae and ostracoda fauna. During this study 110 palynological samples and 7 appropriate ostracoda selected samples are examined.

Defined palynological assemblage of D-97 well consisting of angiosperms (64 %), gymnosperms (11%), Pteridophytes (6%), and fresh-water algae (19%). Results of pollen analysis of the D-97 section point out the presence of Pteridophyta, coniferous forest, wetland and riparian vegetation, Mediterranean xerophitic and steppe elements, mixed mesophytic forests. NPPs are dominant through the section. Most of the recorded algae preferred meso- to eutrophic, stagnant shallow water. The presence of resting cells suggests that the water body might periodically dried out. Dominant species and their percentage ranges are: *Sigmopollis laevigatoides* (10-95%), *Ovoidites minoris* (10-90%), *Tetraporina* (5-90%), *Ovoidites elongatus* (10-60%), *Ovoidites gracilis* (10-50%). In our slides we have also *Stigmozygoidites*, *Ovoidites grandis*, *Cycloovoidites cyclus*, *Ovoidites spp*, *Diagonalites diagonalis*, *Concentricystes*, *Botryococcus braunii*, *Pediastrum boryanum*, *Sigmopollis pseudosetarius*, *Sigmopollis punctatus*, *Sigmopollis spp.*, *Spintetrapidites quadriformis*, *Tetraploa cf. aristata*, *Gaeumannomyces* sp. From comparison of the NPP results with pollen and spore curves from drillcore, ecological indicator values were derived.

In addition to palynological analysis five ostracod taxa belonging to three genera have been determined: *Candona negleta*, *Candona angulata*, *Heterocypris incongruens*, *Candona* sp., *Amplocypris* sp. These ostracod taxa also indicates shallow, low temperature and low oxygenated freshwater.