ACTA PALAEONTOLOGICA POLONICA

Miocene coniferous woods of the Polish Carpathian Foredeep

Marzena Kłusek
Acta Palaeontologica Polonica 59 (3), 2014: 697-708 doi: http://dx.doi.org/10.4202/app.2011.0158

This paper presents the results of analysis of the Miocene woods collected from three sampling sites in the Polish part of the Carpathian Foredeep. The location in the stratigraphic profile and the state of fossil preservation indicate that the woods were transported by waters flowing from highland or from mountainous regions and then deposited and fossilised in delta areas. Fragments of 16 lignified or silicified woods were collected for anatomical research. The fossil woods were classified as *Piceoxylon piceae, Juniperoxylon pachyderma, Cupressinoxylon canadense* and *Cupressinoxylon polonicum*. Disturbance zones observed in *Cupressinoxylon polonicum* are interpreted as frost rings. Frost rings suggest that despite the documented existence of warm and humid climatic conditions during the Miocene period, the temperatures in mountainous areas could temporarily drop below freezing point.

Key words: Coniferophyta, fossil woods, palaeoecology, wood anatomy, Miocene, Poland.

Marzena Kłusek [marzena.klusek@boku.ac.at], BOKU University of Natural Resources and Applied Life Sciences Vienna, University Research Center Tulln, Konrad Lorenz Strasse 24, 3430 Tulln an der Donau, Austria.