ACTA PALAEONTOLOGICA POLONICA

The Upper Triassic flora of Svalbard

Christian Pott
Acta Palaeontologica Polonica 59 (3), 2014: 709-740 doi: http://dx.doi.org/10.4202/app.2012.0090

The Triassic plant fossils from the Svalbard archipelago are comprehensively reviewed. The poorly known flora is widespread and has been recovered from all Triassic exposures in the archipelago; 24 species are identified and one new species, viz. *Arberophyllum substrictum* , is described. The flora consists of sphenophytes, ferns, cycadophytes, and putative ginkgophytes and seed ferns. Ferns and Bennettitales are the dominant elements. The composition of the flora is strikingly similar to the Carnian flora of Lunz in Lower Austria, sharing an unexpectedly large number of taxa, and thus, it is proposed that most of the fossils derive from the De Geerdalen Formation, which is dated as Carnian. Key taxa in the Svalbard flora are *Asterotheca, Neocalamites, Pterophyllum,* and *Arberophyllum*. The floristic composition and sedimentology of the host strata suggests that the flora thrived in a coastal lagoonal/deltaic environment. The similarity of the Svalbard and Lunz floras argues that the North Atlantic floral sub-province hypothesised for the Rhaetian in this region was already established by the Carnian.

Key words: Bennettitales, *Asterotheca, Neocalamites, Pterophyllum, Paratatarina*, Carnian, Triassic, Lunz, Svalbard, Spitsbergen.

Christian Pott [christian.pott@nrm.se], Palaeobotany Department, Swedish Museum of Natural History, Box 50007, SE-104 05 Stockholm, Sweden.

This is an open-access article distributed under the terms of the Creative Commons Attribution License (for details please see creativecommons.org), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

Full text (2,875.3 kB)