

PLANT MACROFOSSILS FROM THE AFTERMATH OF THE END-TRIASSIC EXTINCTION, SKÅNE, SOUTHERN SWEDEN

D. Quiroz-Cabascango^{a,b*}, V. Vajda^a, S. Mcloughlin^a, G. Niedzwiedzki^c

^aDepartment of Paleobiology, Swedish Museum of Natural History, Stockholm, Sweden, *daniela.quiroz@nrm.se, vivi.vajda@nrm.se, steve.mcloughlin@nrm.se; ^bDepartment of Ecology, Environment and Plant Sciences, Stockholm University, Stockholm, Sweden, daniela.quiroz@nrm.se; ^cDepartment of Organismal Biology, Uppsala University, 75236, Uppsala, Sweden, grzegorz.niedzwiedzki@ebc.uu.se

The end-Triassic mass extinction event (ca. 201 Myr ago) has received particular attention over recent decades since Sepkoski in the early 1980s classified it as one of the “big five” biotic crises in Earth's history. In the geological record of Greenland and Sweden, 80% of the species of terrestrial plants disappeared at this boundary. In the last two centuries, Triassic–Jurassic plant remains from Skåne, southern Sweden, have been collected, curated, and studied. However, the paleoflora from the lowermost part of the Helsingborg Member (Lower Jurassic: Hettangian) is poorly understood. Here, a taxonomic/paleoecological study is presented of two novel plant assemblages collected from the Boserup beds (basal Hettangian) in Norra Albert Quarry, Skåne. The exposures in Skåne are among the few localities in the world that record the terrestrial ecosystem aftermath of the end-Triassic extinction event. Plant macrofossils were studied using macrophotography and fluorescence microscopy. The flora is composed of sphenophytes (*Neocalamites* sp.), ferns (*Cladophlebis* sp., cf. *Eboracia*), ginkgophytes (*Czekanowskia* sp., cf. *Pseudotorellia*, cf. *Ginkgoites*), and conifers (*Pityophyllum* sp., *Brachyphyllum* sp.). A comparison with the Rhaetian Bjuv Member and the Hettangian Helsingborg Member floras is presented, revealing a relatively low-diversity -flora in the aftermath of the end-Triassic extinction but a fast recovery later. Furthermore, to clarify the regional plant distribution across the Triassic–Jurassic transition, the floras of the correlative lowermost Jurassic beds in East Greenland and Poland are compared, revealing that ginkgophytes and sphenophytes were widely distributed across the northern region of Pangea in the aftermath of the end-Triassic biotic crisis.