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Quantifying UV-B flux over the Late Triassic Carnian Pluvial Extinction Event (c. 233–229 Ma).

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The geological record contains numerous episodes of global environmental change associated with pronounced transient perturbations to the global carbon cycle, some of which are closely linked with ocean acidification and mass extinction. Here, we focus on the Late Triassic mass extinction during the Carnian Pluvial Event (CPE) which occurred *c.* 233–229 million-years-ago (Ma). The CPE extinction remains one of the least studied and most controversial biotic crises due primarily to the lack of well-dated sedimentary successions. The CPE interval features a -4 ‰ δ^{13}C excursion, which is interpreted as a massive atmospheric injection of ^{13}C-depleted carbon from the Wrangellia Flood Basalts. The associated increase in atmospheric pCO$_2$ may then have accelerated the hydrological cycle, resulting in increased weathering and enhanced siliciclastic delivery to shallow carbonate basins. Volcanic activity is known to significantly alter the amount of incoming solar UV-B radiation via dimming processes, the destruction of ozone and increased cloud formation via the addition of cloud condensation nuclei to the atmosphere.

To reconstruct variations in UV-B flux we have measured the abundance of phenolic components (UV-B absorbing compounds) contained within the cell wall of *Ovalipollis* pollen grains across the CPE, from samples taken from the Lunz region (Austria). These phenolic components are part of the defensive system of plants, where the abundance of phenolics increases with elevated UV-B flux.

Our preliminary data indicate i) that the highest abundance of phenolics occur in the latter stages of the CPE, ii) the abundance of phenolics are highly variable throughout the CPE, and iii) the abundance of phenolics broadly increase towards the end of the Late Triassic. Here we will discuss the significance of the obtained data in terms of palaeoclimatic variability and the impact of volcanism during the Carnian Pluvial Event.