

Spatial Response to Major Volcanic Events in or About AD 536, 934 and 1258: Frost Rings and Other Dendrochronological Evidence From Mongolia and Northern Siberia

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Hypothesized large-scale climatic extremes require verification from distant regions in order to confirm the magnitude and timing of such events. Three of the most massive hypothesized volcanic events of the past two millennia, occurring in or about AD 536, 934 and 1258, had profound climatic and demographic repercussions over much of Europe, the Middle East, and other areas, according to historical accounts as well as other research. Here we report on frost ring and other dendrochronological evidence derived from a 1738-year tree-ring chronology from Mongolia and millennial-scale tree-ring data from northern Siberia which demonstrate that these three events may have also impacted conditions in these distant regions.