

## **Description of Additional Supplementary Files**

### **File Name: Supplementary Data 1**

**Description:** Our source data has been uploaded as Supplementary Data 1. It includes an Excel Workbook with four tabs with specimen numbers and locality (SA = South Africa; ANT or A = Antarctica). 'Specimen Averages' provides means for each specimen; 'Individual Growth Mark Data' provides individual measurements for line thickness, the distance between consecutive stress lines, as well as the distance between consecutive regular growth marks; the transect data used to make Fig. 3 and Supplementary Fig. 1 (previously Supplementary Fig. 1 G and H) is separated by locality to give two sheets, 'ANT Stress Mark Transect Data' and 'SA Stress Mark Transect Data'.