Supplement materials:

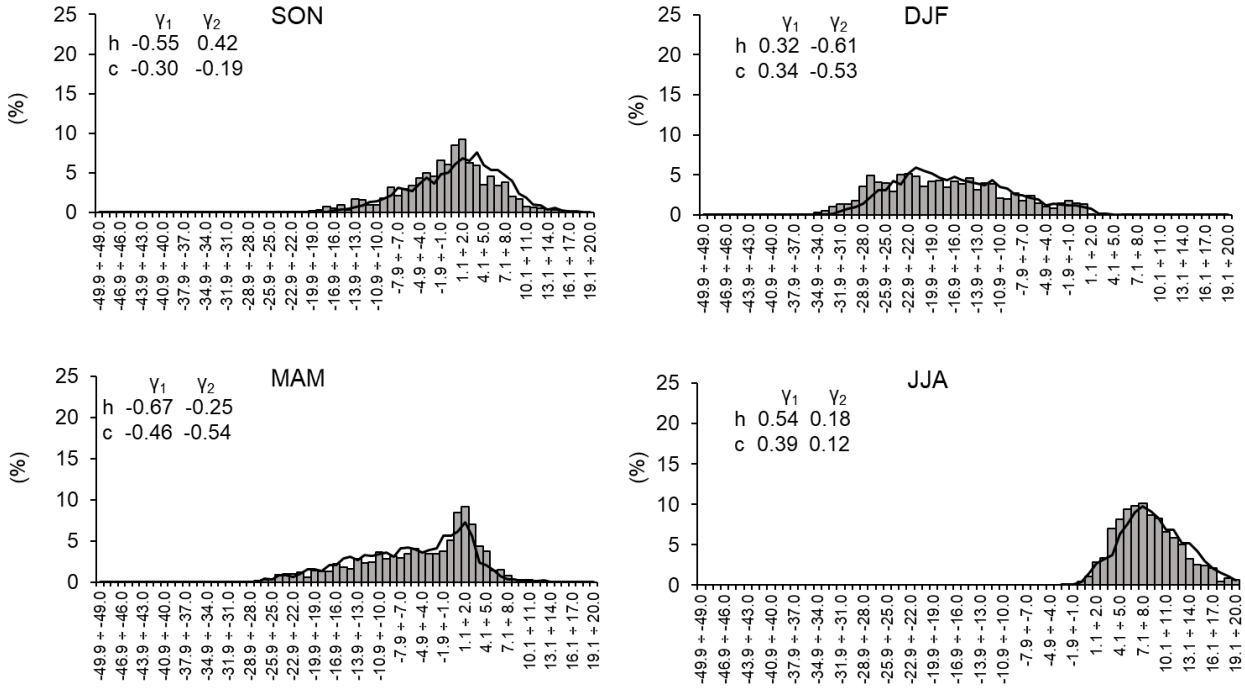


Figure S1. Seasonal (Sep–Nov, Dec–Feb, etc.) relative frequencies of occurrence (in %) of MDAT in historical (bars) and modern (lines) sites located in Okak 1776-87 and Sep 1990 – Aug 2020. Values of skewness ($\gamma 1$) and kurtosis ($\gamma 2$) for historical (h) and contemporary (c) times are also shown.

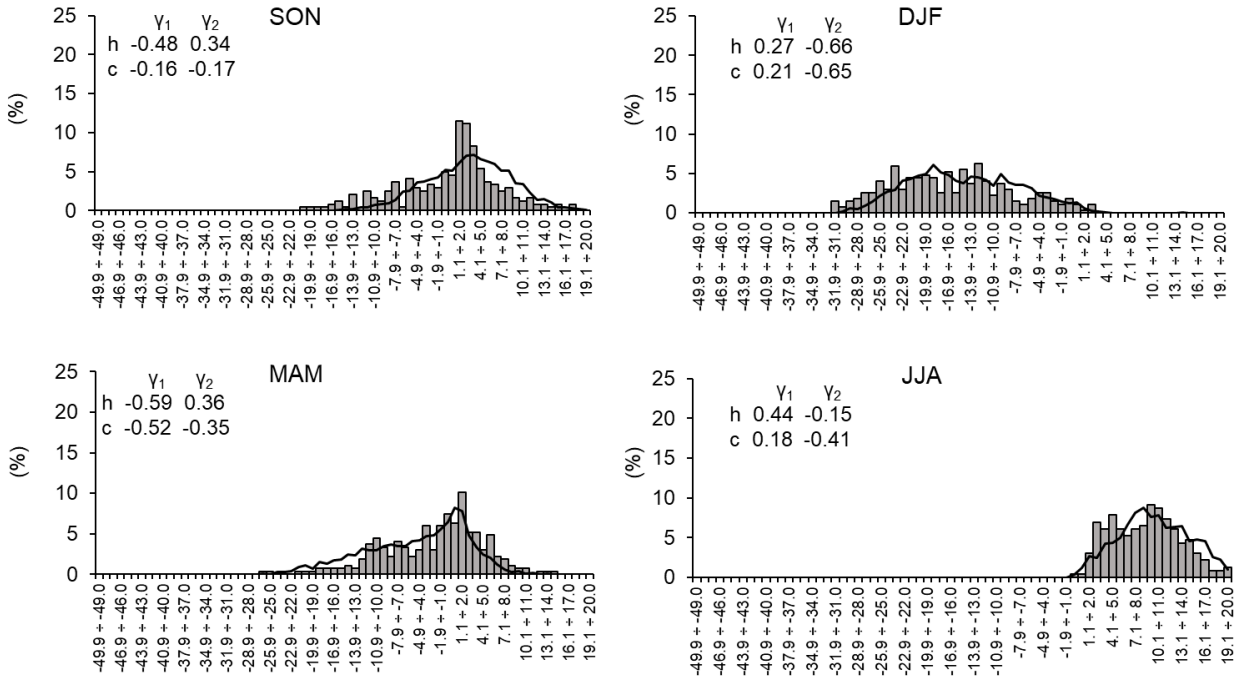
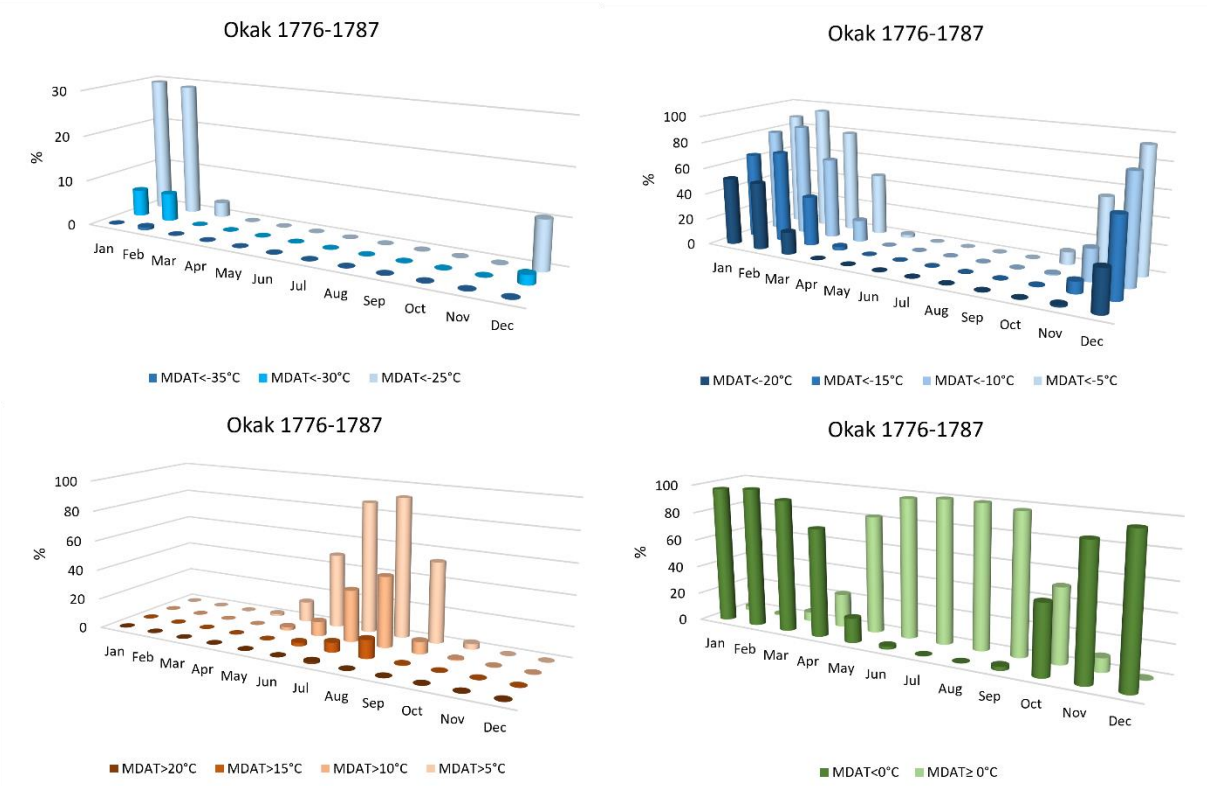


Figure S2: Seasonal (Sep–Nov, Dec–Feb., etc.) relative frequencies of occurrence (in %) of MDAT in historical (bars) and modern (lines) sites located in Hopedale 1782–86 and 1990–2020. Values of skewness ($\gamma 1$) and kurtosis ($\gamma 2$) for historical (h) and contemporary (c) times are also shown.



15 **Figure S3.** Annual courses of relative frequency of occurrence (in %) of characteristic days in Okak in historical time.

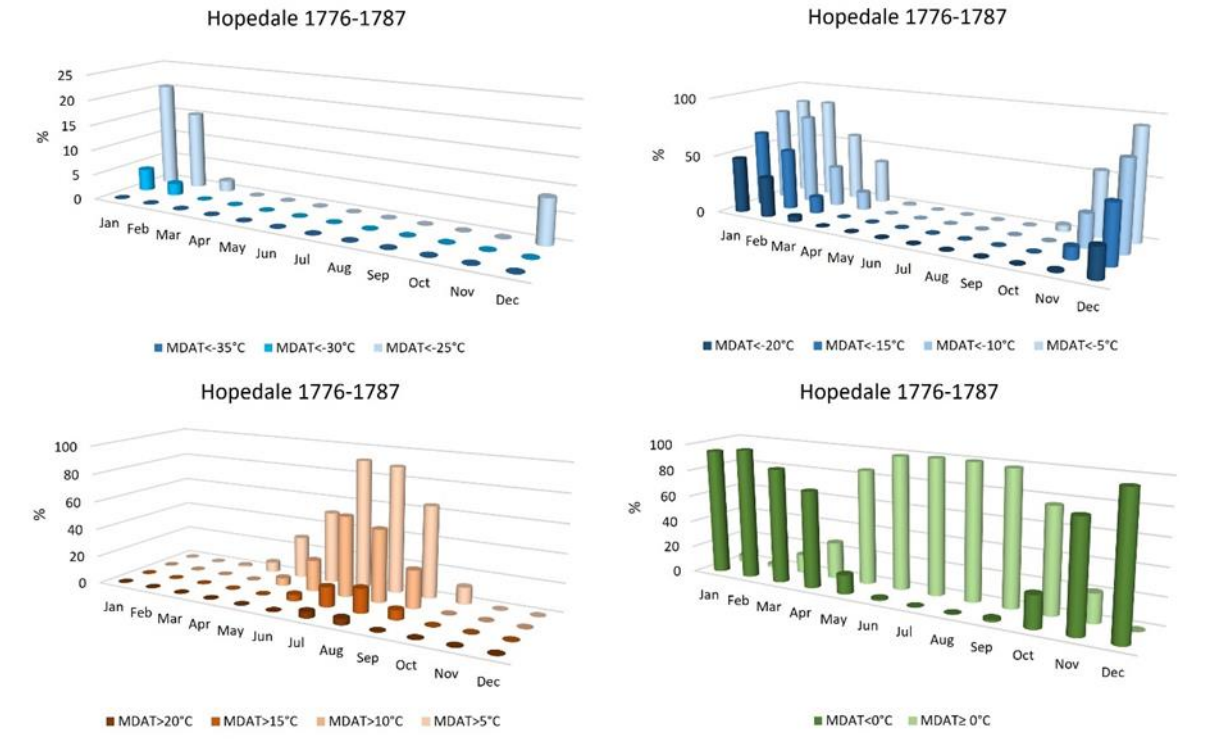


Figure S4. Annual courses of relative frequency of occurrence (in %) of characteristic days in Hopedale in historical time.