

How warm was the "Medieval warm period"?

A reconstruction of 1500 years of arctic summer temperatures from wood density

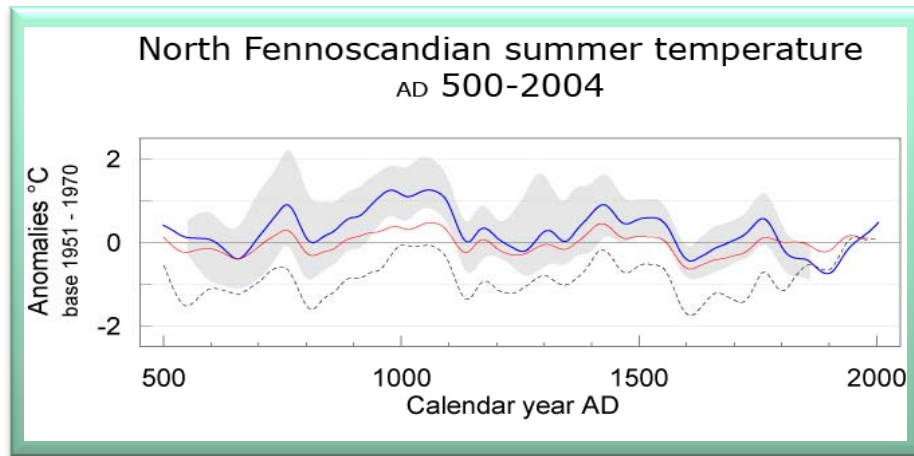


Fig. 12 The *thick blue curve* is the new Torneträsk MXD low-frequency reconstruction of April–August temperatures, with a 95% confidence interval (*grey shading*) adopted from Fig. 5. The new record is compared with two previously published temperature reconstructions based on tree-ring data from Torneträsk: The *thin red curve* is from Briffa et al. (1992) and based on TRW and MXD. The *hatched curve* is from Grudd et al. (2002) and based on TRW. The three reconstructions were equally smoothed with a 100-year spline filter and have AD 1951–1970 as a common base period

Tree-ring width (TRW) has been used for many years as a mean of reconstructing summer temperature. Recent investigations, using high-resolution radiographic scanning devices have shown that maximum density in a year ring is a far more significant parameter for temperature reconstruction than the ring width itself. H. Grudd has used this novel technology to reconstruct the north Fennoscandian summer temperature over the last 1500 years. The non-climatological growth trend was removed by using Regional Curve Standardization. This updated dendrochronology suggests that the "Medieval warm period" was significantly warmer than the previously recognized.

Read more: **Swedish tree rings provide new evidence in support of a major, widespread environmental disruption in 1628 BC.**
Grudd H., Briffa K.R., Gunnarson B.E., Linderholm H.W. *Geophysical Research Letters*, 27(18), 2957-296