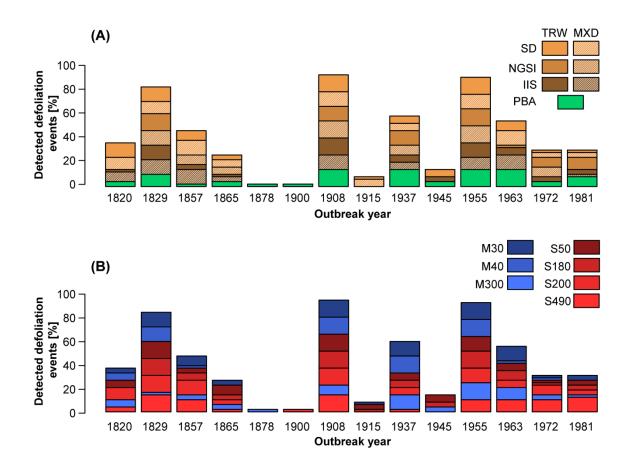


**Figure S1**. Redfit spectral analysis of TRW chronologies with **(A)** spectra and limits of the 95% confidence intervals and **(B)** periods during which the spectra exceeded this limit with the 9-year-cycle typical for LBM outbreaks.



**Figure S2**. Detection of recorded defoliation events in the Valais split up **(A)** by methods (MXD variants indicated by hatched white lines) and **(B)** by sites. Percentages refer to detected cases among the 49 possible site-method combinations.