INTRODUCTION

The Baltic Ice Lake drained at the end of Younger Dryas. The drainage of the Baltic Ice Lake and a new Scandinavian reference 10Be production rate

BILLINGEN 10Be PROD RATE

We calibrate the reference production rate by matching 10Be concentrations from bedrock surfaces, boulders, and cobbles (Fig. 3) against an independently derived calibration age of 11,673 ± 100 years. We use the CRONUS calculator code (Balco et al., 2010) to derive the 10Be production rates for the five CRONUS production rate scaling schemes and the two LSD (Lifton et al., 2014) production rate scaling schemes. All samples were submerged under water for the initial 129-940 years and we therefore model the production rate reduction during emergence through the water columns (Fig. 4).

BILLINGEN PROD RATE

We combine the well-clustered Billingen production rate from the bedrock surfaces for Billingen and we exclude outliers for the five CRONUS production rate scaling schemes. We use the CRONUS calculator code (Balco et al., 2010) to derive the 10Be production rates for the five CRONUS production rate scaling schemes and the two LSD (Lifton et al., 2014) production rate scaling schemes. All samples were submerged under water for the initial 129-940 years and we therefore model the production rate reduction during emergence through the water columns (Fig. 4).

SCANDINAVIAN PROD RATE

We combine the well-clustered Billingen bedrock surface reference 10Be production rates with the recalibrated reference production rates from three sites in Norway (one site excluded as an outlier) to derive a tightly clustered regional Scandinavian reference 10Be production rate (Fig. 6).

OUTCOME

• Billingen reference 10Be production rate: LSD: 4.02 ± 0.18 atoms g–1 yr–1; CRONUS Lm: 4.19 ± 0.20 atoms g–1 yr–1
• Scandinavian reference 10Be production rate: LSD: 3.95 ± 0.10 atoms g–1 yr–1; CRONUS Lm: 4.13 ± 0.11 atoms g–1 yr–1

References