



Corrigendum to “A multi-ice-core, annual-layer-counted Greenland ice-core chronology for the last 3800 years: GICC21” published in *Clim. Past*, 18, 1125–1150, 2022

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During the preparation of this article, we included some erroneous information in Table 3. We wish to thank Peter Abbott and Michael Sigl for kindly bringing these mistakes to our attention.

The correct information is as follows:

1. The Katmai volcano is in Alaska.
2. The Tianchi (Changbaishan) caldera is on the border between China and North Korea.
3. The correct reference for the Veiðivötn tephra is Abbott et al. (2021), reported in reference list below.
4. Tephra from the Okmok event was found in GISP2.
5. The age of 946 CE for the Tianchi (Changbaishan) event was reported by Oppenheimer et al. (2017). Sun et al. (2014) describe the tephra in NEEM-2011-S1 and NorthGRIP; Oppenheimer et al. (2017) provide an independent dendrochronological date of winter 946/947 CE with observations refining it further to November 946 CE.
6. The 775 CE solar proton event (SPE) ¹⁰Be peak was also identified in TUNU2013. The GRIP finding is linked to the same event but is based on ³⁶Cl.
7. For the Aniakchak event, the GRIP tephra was discovered in an earlier paper by Hammer et al. (2003). The initial attribution to Thera of the GRIP tephra was later challenged by Pearce et al. (2004). Coulter et al. (2012) found the corresponding tephra in NorthGRIP and ultimately proved the attribution of the event to the Aniakchak eruption.
8. The GICC05 age of the Aniakchak event was 1641 BCE (Vinther et al., 2006).

Below, we report the corrected Table 3.

Table 3. GICC21 ages of chronostratigraphic markers in the Holocene which were important for this study. Tephra from eruptions and ^{10}Be from solar proton events (SPEs) both provide chronological references when the age of the event is known from historical evidence or other accurate timescales, such as dendrochronology.

| Name, location | Historical age (CE/BCE) | GICC21 age ($\pm\delta t$) ^b (CE/BCE) | Reference | Ice core of tephra/ ^{10}Be finding |
|---|--------------------------|--|---|---|
| Katmai, Alaska | 1912 CE | 1912 \pm 2 CE | Coulter et al. (2012) | NorthGRIP |
| Laki, Iceland ^a | 1783 CE | 1783 \pm 2 CE | Fiacco et al. (1994) | GISP2 |
| Veidivötn-Bárðarbunga, Iceland | 1477 CE | 147 \pm 2 CE | Abbott et al. (2021) | TUNU13 ^h |
| Öræfajökull ^a | 1362 CE | 1362 \pm 2 CE | Palais et al. (1991), Coulter et al. (2012) | GISP2 GRIP |
| Samalas, Indonesia | 1257 CE | 1259 \pm 2 CE | Palais et al. (1992), Lavigne et al. (2013) | GISP2 |
| 994 CE SPE (^{10}Be) ^c | 994 CE | 992 \pm 3.6 CE | Sigl et al. (2015), Mekhaldi et al. (2015) | NEEM-2011-S1, NorthGRIP, GRIP |
| Tianchi, (Changbaishan), China/N. Korea | 946 CE ⁱ | 946 \pm 3.7 CE | Sun et al. (2014) | NorthGRIP, NEEM-2011-S1 |
| Katla, Eldjá, Iceland | 939 CE | 939 \pm 3.8 CE | Zielinski et al. (1995) | GISP2 |
| Bárðarbunga, Settlement, Iceland | ~ 877 CE | 877 \pm 3.9 CE | Grönvold et al. (1995), Zielinski et al. (1997) | GRIP GISP2 |
| 775 CE SPE (^{10}Be) | 774/775 CE 774/775 CE | 774 \pm 4.1 CE 774 \pm 4.1 CE | Sigl et al. (2015), Mekhaldi et al. (2015) | NorthGRIP, NEEM-2011-S1, TUNU13 GRIP ^j |
| UE 88 (formerly attributed to Vesuvius 79 CE) | ~ 88 CE ^d | 89 \pm 5.4 CE | Plunkett et al. (2022) | NEEM-2011-S1 |
| Okmok, Alaska | ~ 43 BCE ^e | 43 \pm 5.6 BCE | McConnell et al. (2020) | GISP2 |
| 660 BCE SPE (^{10}Be) | 665–660 BCE ^f | 663 \pm 6.8 BCE | O'Hare et al. (2019) | NorthGRIP, GRIP |
| Aniakchak, Alaska (formerly attributed to Thera, Santorini) | ~ 1641 BCE ^g | 1629 \pm 7.3 BCE | Hammer et al. (2003), Coulter et al. (2012) | GRIP NorthGRIP |

^a Only two of the events are used to anchor our timescale. ^b GICC21 ages are reported at the peak of the signal identifying the event; a delay in deposition might occur. ^c Not used as tie point across ice cores. ^d Age from NS1-2011 chronology. ^e Age from indirect historical evidence and tree rings (McConnell et al., 2020). ^f Age from tree rings (Park et al., 2017; Sakurai et al., 2020). ^g GICC05 age of acidity layer. ^h TUNU13 was not used for this study, but we verified the match with NEEM-2011-S1 and NorthGRIP to be the same as ours. ⁱ Age reported in Oppenheimer et al. (2017) based on dendrochronological evidence and narrowed down to November 946 CE. ^j The identification of the 775 CE SPE in GRIP is based on ^{36}Cl measurements.

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