



Wiggles and the void: highly resolved temporal ^{14}C dates during the Younger Dryas

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The onset of the Younger Dryas (YD) around 12 900 BP is marked by an abrupt cooling event lasting over 1000 years before a warming to present day temperatures. The abrupt climate change during the YD could be a potential analog to modern day global climate change. To understand the YD, accurate and complete paleoclimate, paleoenvironmental and archaeological records are required. However, Northern Hemisphere absolute tree-ring chronologies extend back to only 12 325 BP and floating chronologies exist back to only 14 200 BP. Radiocarbon-dates for the absolute tree-chronologies and floating chronologies are decadal averages and are weakened as there are only 12 decadal dates for the absolute chronology between 12 325 - 11 900 BP. Here we present quinquennial radiocarbon dates that fill the void between 12 325 - 11 900 BP using German trees that are part of the absolute tree-ring chronology. In addition, we present annual and bi-annual ^{14}C dates for floating chronologies between approx. 12 850 to 12 500 BP. These new ^{14}C dates show more wiggles and structure that are not present in the decadal ^{14}C dates of Intcal13. These wiggles could offer new insight into carbon cycle and/or solar variability during the YD.