



## **New Holocene magnetic data from a varved lake sequence in central west Sweden**

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New palaeo- and mineral- magnetic data have been derived from an annually-laminated lake in central west Sweden. The sediments show distinct, countable biogenic/clastic varves, producing high quality magnetic data due to the presence of bacterially-produced, stable single-domain magnetite, forming the main carrier of remanence.

The calendar timescale determined from varve counting tells us that the 6 m sediment sequence dates back to  $\sim 9500$  cal BP. Radiocarbon dates have also been derived for the sequence, giving ages which are between 500 and 1000 years older than the varve count, consistent with results obtained from other Swedish varved lakes, indicating a possible reservoir effect. We therefore believe that our varve counted timescale is more accurate than the timescale produced by radiocarbon measurements.

Using this chronology we have been able to compare our magnetic data with other data derived from Sweden, Finland and the UK. Both direction and intensity of the geomagnetic field have been measured, with curves showing features and directional trends comparable to those seen in other north-European palaeomagnetic studies.