



Suigetsu
Varves
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Oral presentation:

Lake Suigetsu 2006 Varved Sediment Project – Towards A Purely Terrestrial Radiocarbon Calibration Model

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A new sediment core (SG06), recovered from four parallel bore-holes from Lake Suigetsu (central Japan), provides a > 73 m sedimentary sequence representing the last *ca.* 150,000 years, without any stratigraphic gaps. The upper $\approx$ 45 m of the core is annually laminated (varved) and contains a large number of terrestrial plant macrofossil remains. An international, multi-disciplinary team is working with the core to: (i) measure the radiocarbon ages of > 600 macrofossil samples; (ii) count the varves using two different methods to establish an independent chronology; (iii) identify tie points such as geomagnetic events and tephra horizons; and (iv) obtain high resolution climate proxy records. A purely terrestrial radiocarbon calibration model, extending back to the radiocarbon detection limit, will be generated by combining the radiocarbon and varve information, whilst the high chronological precision of the core will facilitate the identification of leads and lags of key climatic events. Here, we present the current status and expected outcomes of the project.