Geophysical Research Abstracts
Vol. 18, EGU2016-2685, 2016
EGU General Assembly 2016

Holocene Sedimentation in College Lake California

Iestyn Barr
Queen's University Belfast, Belfast, (i.barr@qub.ac.uk)

Here, climatic and anthropogenic impacts on Holocene sedimentation in College Lake, California, are investigated from a 457 cm sediment core (down-core trends in the both magnetic and geochemical properties are investigated). Based on a radiocarbon chronology, the core appears to preserve a record of sedimentation for the past c.8, 800 years, and demonstrates a 10-fold increase in sedimentation rate from 150 years BP (varying from 0.042cm yr-1 prior to this period, to 0.391–0.594 cm yr-1, since). This increase in sedimentation rate would appear to reflect the onset of intensive anthropogenic activity within the lake catchment. Prior to this, evidence for episodic climatic fluctuations is preserved within the sedimentary record, reflected by variations in the proportion of organic and minerogenic sediment (with highly minerogenic sediments deemed to reflect moist climatic conditions, and highly organic sediments deemed to reflect an arid climate).