Figure S1. Age-depth model for Core 7 from Lago Chungará. The model is constrained by 3 AMS radiocarbon dates obtained from Subunit 2b in cores 11 and 14. Those dates were translated into Core 7 after detailed correlation based on seismic profiles and tephra keybeds identified as peaks in magnetic susceptibility (Sáez et al., 2007). The age-depth line corresponds to a simple linear interpolation of the median distribution of the calibrated date, while the grey area denotes another linear interpolation of the 2σ calendar range for all ages.

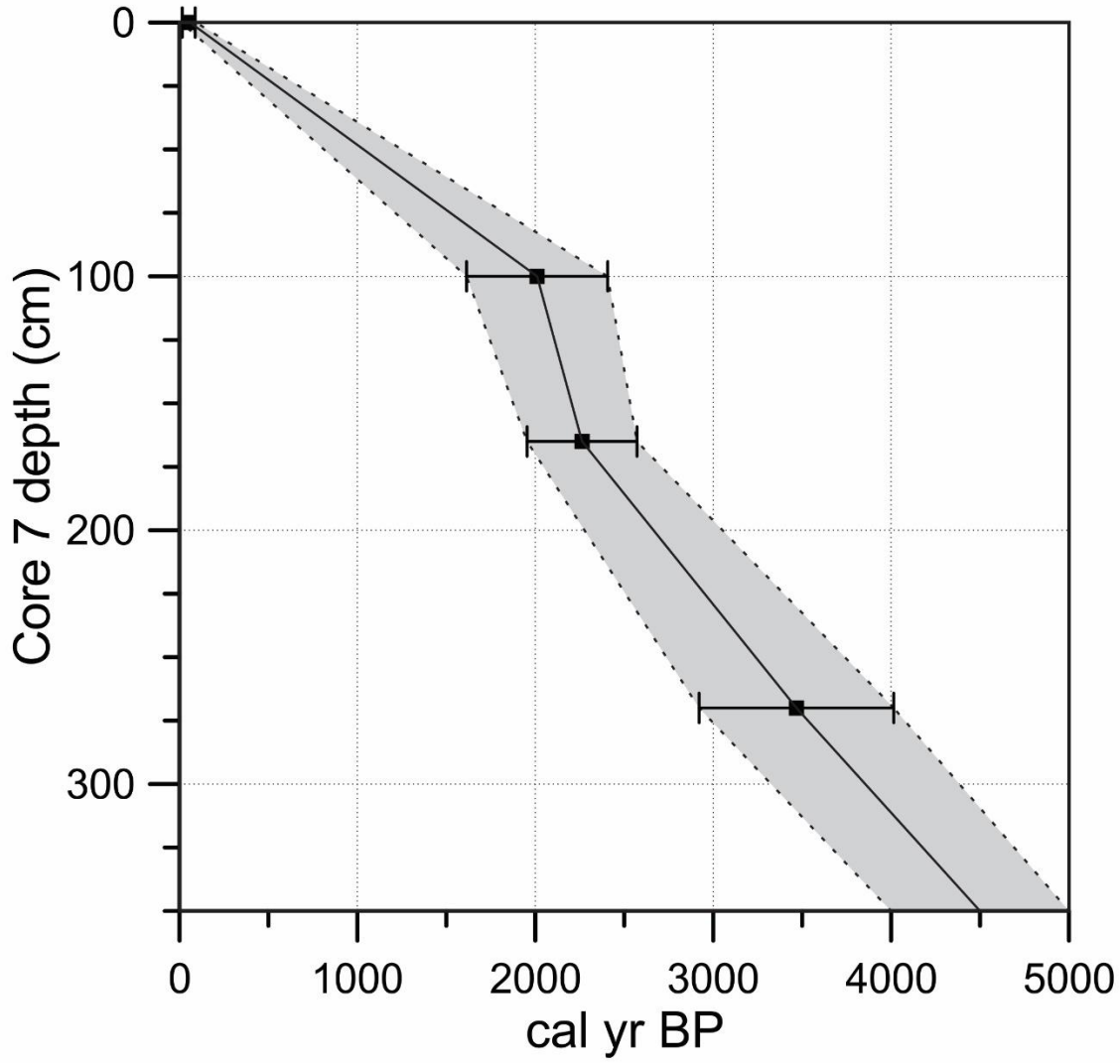

Table S1. Detail of the radiocarbon dates from Lago Chungará used in this study. The calendar age was calculated considering a constant reservoir effect of 3,260 years. Calibration was performed using the Southern Hemisphere terrestrial curve (SHCal13) (Hogg et al., 2013) using the R software platform (R Core Team, 2014). More details of the radiocarbon chronology can be obtained in Giralt et al. (2008).

Laboratory code	core	depth (cm)	^{14}C age	1σ	Median probability (cal yr BP)	youngest 2σ intercept (cal yr BP)	oldest 2σ intercept (cal yr BP)	Calibration curve
Poz-8726	14 A-1	100	4620	40	2010	1791	2188	SHCal13
Poz-8720	11 A-2	165	4850	40	2263	2073	2382	SHCal13
Poz-8721	11 A-2	270	7290	50	3468	2658	4263	SHCal13

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