**SUPPLEMENTARY MATERIAL: Vegetation responses to late-Holocene climate changes in an Andean forest**

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**Supplementary Figure 1.** Pollen diagram from the full pollen spectrum represented in the Lake Palotoa record is plotted along with pollen concentration, and total spore percent. Zones identified by CONISS are indicated by the boxes labeled PAL-1, PAL-2, and PAL-3.

**Supplementary Figure 2.** *Cyathea* cf. *Alsophila* is shown next to *Cyathea* type 2 to demonstrate the morphological differences between the two related taxa.

**Supplementary Figure 3.** Detrended correspondence analysis ordination for Lake Palotoa, light gray diamonds represent the period between c. 3800 – 1050 cal yr BP, dark gray triangles represent the MCA (c. 1050 – 850 cal yr BP), the light gray crosses represent the period between c. 850 – 550 cal yr BP, dark gray circles represents the LIA (c. 550 – 130 cal yr BP), and the light gray squares represent the last 130 years of the record. The MCA and LIA tend to group out as distinguished events within the context of the past 3800 years. Axis one and two of the detrended correspondence analysis are plotted independently against time to show species turnover through time. The gray boxes define the MCA and LIA as described by Bird et al. (2011).

**Supplementary Figure 4.** Abundant and influential taxa from the Palotoa record are plotted on Axis 1 and Axis 2 determined by the detrended correspondence analysis. Numbers were given to taxa that were closely grouped together and correspond to the key on the right.