

## **Tibetan Plateau palaeoglaciology – exposure ages, glacier altitudes, and palaeoclimate**

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The palaeoglaciology of the Tibetan Plateau – the highest plateau region on Earth with a large number of present-day mountain glaciers – has attracted considerable interest. Numerous geomorphological studies have shown the absence of evidence for ice sheet glaciation, pointing out that the Tibetan glacial history involves restricted mountain glaciers and ice-fields/ice caps. With the recent development of cosmogenic exposure dating, the timing of past glaciations has started to emerge, and there is now good evidence for restricted glaciation over at least the last few glacial cycles. However, although there are now more than 1400 exposure ages from glacial deposits published, there are still substantial uncertainties regarding the extent, timing, and drivers of past glaciations. Here I will present a study based on the full set of published Be-10 exposure ages from glacial deposits of the Tibetan Plateau region in an attempt to advance our knowledge of past glacier and climate variations. Using a simple estimate of present and past glacier equilibrium line altitudes (ELA) for all sites with exposure ages, the chronological data can be coupled to glacier-climate data. While there are significant uncertainties regarding both the chronology (wide exposure age scatter) and the ELA estimates (crude approximation), the extensive dataset will enable analysis of large-scale spatial and temporal glaciation as well as climate patterns.

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