

Timing and amplitude of the MIS5a and MIS5c highstands in the western North Atlantic-Caribbean

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Sea-level highstands of the last interglacial provide important clues to the rates and magnitude of possible sea level change, such as that which will result from today's global warming. The height of sea level at these highstands has been a controversial issue for many years, with relative sea level (RSL) measurements differing significantly from location to location. A major component of these differences are the regional changes of sea level induced by melting of different ice-sheets, and due to deformation of the lithosphere caused by resulting changes in crustal loading.

The western North Atlantic-Caribbean region has been the focus of much past work on Quaternary interglacial sea level and is known for RSLs appearing significantly different from one another and from other regions. It is also a region in which isostatic effects such as the collapse of the glacial forebulge play a major role.

Here we present a compilation of published RSL data across the whole western North Atlantic-Caribbean region, focused on MIS5, and augment it with freshly acquired speleothem data from Bermuda. These latter data provide new information regarding the height of sea level and the timing of the 5a and 5c highstands, indicating RSL above modern at this location. We consider how consistent all MIS5a and 5c sea-level data can be, and suggest a best estimate for global sea-level change at the MIS5a and 5c highstands.