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Stríkis, Nicolás Misailidis; Chiessi, Cristiano Mazur; da Cruz Junior, Francisco William; Vuille, Mathias; Cheng, Hai; de Souza Barreto, Eline A; Mollenhauer, Gesine; Kasten, Sabine; Karmann, Ivo; Edwards, R Lawrence; Bernal, Patricio A; dos Reis Sales, Hamilton (2015): Paleoclimate record combination of speleothems and of sediment core GeoB3910-2 [dataset publication series]. PANGAEA, <https://doi.org/10.1594/PANGAEA.847283>,

Supplement to: Stríkis, NM et al. (2015): Timing and structure of Mega-SACZ events during Heinrich Stadial 1. *Geophysical Research Letters*, **42(13)**, 5477-5484, <https://doi.org/10.1002/2015GL064048>

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👁 247 📄 63

Abstract:

A substantial strengthening of the South American monsoon system (SAMS) during Heinrich Stadials (HS) points toward decreased cross-equatorial heat transport as the main driver of monsoonal hydroclimate variability at millennial time-scales. In order to better constrain the exact timing and internal structure of HS1 over tropical South America we assessed two precisely dated speleothem records from central-eastern and northeastern Brazil in combination with two marine records of terrestrial organic and inorganic matter input into the western equatorial Atlantic. During HS1 we recognize at least two events of widespread intensification of the SAMS across the entire region influenced by the South Atlantic Convergence Zone (SACZ) at 16.11-14.69 kyr BP and 18.1-16.66 kyr BP (labeled as HS1a and HS1c, respectively), separated by a dry excursion from 16.66-16.11 kyr BP (HS1b). In view of the spatial structure of precipitation anomalies, the widespread increase of monsoon precipitation over the SACZ domain was termed 'Mega-SACZ'.

Project(s):

Center for Marine Environmental Sciences (MARUM) 🔍

Coverage:

Median Latitude: -13.186821 * Median Longitude: -42.146850 * South-bound Latitude: -16.147770 * West-bound Longitude: -44.610550 * North-bound Latitude: -4.245000 * East-bound Longitude: -36.345000

Date/Time Start: 1996-03-30T00:00:00 * Date/Time End: 1996-03-30T00:00:00

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7 datasets

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<https://doi.org/10.1594/PANGAEA.847065>
2. **Stríkis, NM; Chiessi, CM; da Cruz Junior, FW et al. (2015):** Branched and isoprenoid tetraether (BIT) index, calcium and titanium element concentration of sediment core GeoB3910-2.
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3. **Stríkis, NM; Chiessi, CM; da Cruz Junior, FW et al. (2015):** $\delta^{18}\text{O}$ speleothem record of LSF3 collected from Lapa Sem Fim cave, central-eastern Brazil. <https://doi.org/10.1594/PANGAEA.847069>
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5. **Stríkis, NM; Chiessi, CM; da Cruz Junior, FW et al. (2015):** $\delta^{18}\text{O}$ speleothem record of PX5 collected from the Paixão cave, northeastern Brazil. <https://doi.org/10.1594/PANGAEA.847071>
6. **Stríkis, NM; Chiessi, CM; da Cruz Junior, FW et al. (2015):** $\delta^{18}\text{O}$ speleothem record of PX7 collected from the Paixão cave, northeastern Brazil. <https://doi.org/10.1594/PANGAEA.847072>
7. **Stríkis, NM; Chiessi, CM; da Cruz Junior, FW et al. (2015):** 230Th dating results of speleothem records from two caves, central-eastern and northeastern Brazil. <https://doi.org/10.1594/PANGAEA.847280>

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ACER project members; Sanchez Goñi, MF; Desprat, S et al. (2017): CLAM age model and biomes of sediment core GeoB3910-2.
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