

Interannual variation of stable isotopes in Antarctic precipitation in response to ENSO.

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Evidence for a close relationship between the interannual variation of stable isotopes in Antarctic precipitation and the ENSO was found. Anomalies of sea surface temperature in the Equatorial Pacific and Oxygen-18 in precipitation in the Antarctic Peninsula at Argentine Island (65.25S, 64.27W) are negatively correlated, both having a strong spectral power at about 3 years. The low (high) anomaly of Oxygen-18 is associated with southerly (northerly) and cold (warm) anomalies, which are considered appear as a response to the ENSO teleconnection. It was suggested that the flux and transport passway of southward moisture are the main factors determining the observed variation of stable isotopes in Antarctic precipitation.