Oxygen isotope studies on Miocene (Burdigalian) molluscs from the western margin of India: Insights on monsoon seasonality gradient

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Fossil molluscs from the Miocene (Burdigalian) sedimentary successions were recovered from two latitudinally variable locations (i.e., Kerala State, southwest India and Gujarat State, western India) along the western margin of India. The Oxygen isotope analysis of the seasonal growth bands of bivalve namely *Pitar (Hyphantosoma) simonnei* (Dey, 1961) from Quilon Formation, Quilon Basin, southwest India (Naidu & Kapur, 2017) was compared with the results obtained from an another bivalve Corbulidae cf. *L. trigonalis* (Sowerby 1840) recovered from the Chhasra Formation, Kutch Basin, western India. The comparitave study suggests a strong seasonal variation in the oxygen isotope within the growth bands of these two molluscan taxa, further pointing to an influence of the Indian Summer Monsoon during the Burdigalian.This comparative study also gives an opportunity to estimate the influence of monsoon at two geographically distant (in a latitudinal context) locations during the Burdigalian.

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