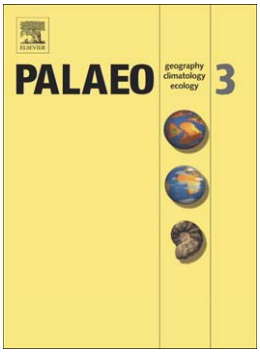

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Monsoon variability over Peninsular India during Late Pleistocene: signatures of vegetation shift recorded in terrestrial archive from the corridors of Western Ghats

Gaurav Srivastava[1*], Anjali Trivedi[1], R.C. Mehrotra[1], Khum N. Paudayal[2], Ruta B. Limaye[3], K.P.N. Kumaran[3], S.K. Yadav[4]

[1]*Birbal Sahni Institute of Palaeobotany, 53 University Road, Lucknow- 226 007, India*

[2]*Central Department of Geology, Tribhuvan University, Kirtipur, Kathmandu, Nepal*

[3]*Palynology and Palaeoclimate Laboratory, Palaeobiology Group, Agharkar Research Institute, G.G. Agarkar Road, Pune- 411 004, India*

[4]*Department of Geology, University of Lucknow, 53 University Road, Lucknow- 226 007, India*

[*]Corresponding author. Tel.: +91 9792704022; fax: +91 5222740485.

e-mail: gaurav_jan10@yahoo.co.in (GS).

ABSTRACT

The fossil flora recovered from the Kangvai well, Ratnagiri District, Maharashtra (17°53'41" N; 73°12'23" E) has been used to reconstruct the monsoon variations and seasonal rainfall pattern during the Late Pleistocene (44,020 ± 390 yr BP) by using the Coexistence Approach. The reconstruction suggests that the Southwest (SW) and Northeast monsoons (NE) contributed ~64% and 18% of the total rainfall, respectively. Moreover, the pre-monsoon showers were responsible for about 15% of the annual rainfall. As both SW and NE monsoons were very active, along with the pre-monsoonal rainfall, the length of rainy season increased and extended up to nine months in a year favouring the evergreen continuum and prevalence of wet evergreen forests until the Late Glacial Maximum or slightly prior to it. However, due to the weakening of NE and pre-monsoon rainfall later in the Late Pleistocene and Early Holocene, the area