

Birbal Sahni Institute of Palaeosciences
Monthly summary on Research Activities
(July, 2022)

1. Areas of Focus:

The institute carries out research on fundamental as well as applied aspects of Palaeosciences that includes Evolutionary history of biota, Paleoclimate, studies of past civilization, Human history and contemporary Climate Change issues, following an integrated and multi-disciplinary approach.

Key research activities under following objectives:

- Understanding origin and evolution of life through time and space.
- Understanding climate change in recent and deep geological times.
- Understanding past civilization and human history.
- Application of Palaeosciences in exploration of fossil fuel and coal industry.

2. Important Highlights of Major Research Programmes

a) Key Scientific Findings of the Month (July 2022)

b) Friday lecture series talks

S.No.	Speaker	Title of the talk	Date
1.	Dr. Prem Raj Uddandam Scientist B, BSIP	Late quaternary evolution of primary productivity in the northern Indian ocean	July 01, 2022
2.	Dr. Anurag Kumar Scientist B, BSIP	Stable isotopes as a tracer to understand modern environments: a case study from Ganga River basin	July 22, 2022

Scientific members, Project staff members, Research Associates and PhD scholars attended the talks of the Friday Lecture series.

c) Invited Scientific Lecture (July 13th 2022)

Dr. Kalachand Sain, Director, Wadia Institute of Himalayan Geology, Dehradun delivered an exciting and intriguing lecture on the topic “Machine learning and its applications to geosciences” on July 13th 2022 at institute premises. Prof. L. S. Chamyal, Chairman, RAC BSIP presided over the function and Prof. GVR Prasad, Member RAC BSIP was the Guest of Honour for the event. All scientific members, project staff members, research associates and PhD scholars attended the lecture event.

List of research publications (July, 2022)

1. **Sarkar, S.**, Cotton, L.J., Paul J. Valdes, P.J., Schmidt, D.N. (2022). Shallow water records of the PETM: Novel insights from NE India (eastern Tethys). *Paleoceanography and Paleoclimatology* 37(7). DOI: [10.1029/2021PA004444](https://doi.org/10.1029/2021PA004444). (**Impact factor: 3.99**).
2. **Singh, V.K., Sharma, M.** (2022). New Material of Carbonaceous Compressions from the ~1.5 Ga Singhora Group, Chhattisgarh Supergroup, India, and their Interpretation as Benthic Algae. *Frontiers in Earth Science*. DOI: [10.3389/feart.2022.825430](https://doi.org/10.3389/feart.2022.825430). (**Impact factor: 3.661**).
3. **Mishra, D.P., Singh, V.P., Saxena, A., Uhl, D., Murthy, S., Pandey, B., Kumar, R.** (2022). Palaeoecology and depositional setting of an Early Permian (Artinskian) mire based on a multi-proxy study at the Jagannath coal mine (Talcher Coalfield), Mahanadi Basin, India. *Palaeogeography, Palaeoclimatology, Palaeoecology* 601. DOI: [10.1016/j.palaeo.2022.111124](https://doi.org/10.1016/j.palaeo.2022.111124). (Impact factor: 3.565).
4. **Mehrotra, N., Shah, S.K., Basavaiah, N., Kar, R.** (2022). Middle to Late Holocene climate, vegetation and sea-level changes in NW Tripura, northeast India, based on palynological and mineral magnetic evidence. *Journal of Paleolimnology*. DOI: [10.1007/s10933-022-00249-6](https://doi.org/10.1007/s10933-022-00249-6). (**Impact factor: 2.265**).
5. Tripti, M., Lambs, L., **Gurumurthy, G.P.**, Moussa, I., Balakrishna, K. (2022). Isotopic fingerprinting of dual monsoon moisture sources, evapotranspiration process and microclimate manifestation over the tropical rainforest region, western part of the Western Ghats, India. *Journal of Hydrology*. DOI: [10.1016/j.jhydrol.2022.128239](https://doi.org/10.1016/j.jhydrol.2022.128239). (**Impact factor: 6.708**).
6. Radhwani, M., **Singh, V.P.**, Bechtel, A., Singh, B.D., Mannai-Tayech, B. (2022). Miocene organic-rich layers of the Saouef Formation (Oriental Tunisia); insights into temporal and spatial variability of environmental conditions during deposition. *Organic Geochemistry*. DOI: [10.1016/j.orggeochem.2022.104464](https://doi.org/10.1016/j.orggeochem.2022.104464) (**Impact factor: 3.623**).
7. Singh, N., **Sekhar, M.**, Parida B.R., Gupta, A., Sain, K., Rai, S., Bräuning, A., Sharma, V., Tiwari, R.K., Chauhan, P., Montagnani, L. (2022). Tree-Ring Isotopic Records Suggest Seasonal Importance of Moisture Dynamics Over Glacial Valleys of the Central Himalaya. *Frontiers in Earth Science*. DOI: [10.3389/feart.2022.868357](https://doi.org/10.3389/feart.2022.868357). (**Impact factor: 3.661**).

Photographs showing important highlights of major programs/research activities organized during July, 2022: