

Birbal Sahni Institute of Palaeosciences
Monthly summary on Research Activities
(June, 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) Friday lecture series talks

S.No.	Speaker	Title of the talk	Date
1.	Dr. Adrita Choudhuri, Scientist B, BSIP	Stratigraphic record: Continuous or discontinuous?	May 27, 2022
2.	Mr. Sabyasachi Mandal, Scientist B, BSIP	Shallow marine glauconitization in response to the intrabasinal tectonics	June 3, 2022
3.	Dr. Sandhya Mishra, BSRA, BSIP	Archaeobotany: Looking into Green through Black	June 10, 2022

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

b) Hindi workshop Lecture (May 31, 2022)

Shri. Kamakhya Narayan Singh, Assistant Director, Official language department, DST delivered a lecture on 'Ways to promote science in hindi' through online platform. The Scientific Staff Members, Research Associates, Research Scholars of BSIP attended the workshop lecture.

c) "Har Ghar Tiranga" Programme (June 14, 2022)

A lecture was delivered by Dr. Swati Tripathi, Scientist-D on 14th June, 2022 at 3:00 pm emphasizing on unsung heroes of freedom movement in the main auditorium of the institute and followed by Poem recitation/Kavita Path by Staff members/Research Scholars. Dr. Anju Saxena, Scientist-E also gave a deliberation about our National flag. All staff members

including BSRA, BSRS and research scholars and research associates of sponsored projects of the institute attended the programme.

d) 8th International Yoga Day celebration (June 21, 2022)

8th International Yoga Day was celebrated on June 21, 2022 with a yoga session conducted in BSIP premises for the staff members which included Gentle Yoga flow, Surya Namaskar, Pain and stress reliving asanas and Pranayama asanas. The session was attended by institute's scientists, administrative and technical officers and research scholars.

List of research publications (June, 2022)

1. **Mishra, D.K.**, Hackley, P.C., Jubb, A.M., Sanders, M.M., **Agrawal, S.**, Varma, A.K. (2022). Maturation study of vitrinite in carbonaceous shales and coals: Insights from hydrous pyrolysis. *International Journal of Coal Geology* 259. DOI: 10.1016/j.coal.2022.104044. **(Impact factor: 6.806)**.
2. **Roy, I., Tomar, N., Ranhotra, P.S.**, Sanwal, J. (2022). Proxy Response Heterogeneity to the Indian Monsoon During Last Millennium in the Himalayan Region. *Frontiers in Ecology and Evolution* 10. DOI: 10.3389/fevo.2022.778825. **(Impact factor: 4.171)**.
3. **Prasanna, K., Kapur, V.V.** (2022). Oxygen Isotopic Studies of a Species of Pitar (*Hyphantosoma*) from Quilon Formation, Kerala, Southwest India: Inferences on Seasonality during the Miocene (late Burdigalian). *Journal of Geological Society of India* 98: 843–850. DOI: 10.1007/s12594-022-2075-1. **(Impact factor: 1.459)**.
4. **Mishra, A.K.**, Mohanty, R.B., **Ghosh, R.**, Mishra, K., Shukla, U.K., **Kar, R.** (2022). Modern pollen–vegetation relationships along an altitudinal transect in the Western Higher Himalaya, India: Palaeoclimatic and anthropogenic implications. *The Holocene*. DOI: 10.1177/09596836221096006. **(Impact factor: 2.769)**.
5. **Khan, H., Govil, P.**, Panchang, R., Kumar, P. **Agrawal, S.** (2022). Surface hydrographic variations in the western Arabian Sea through the last 172 kyr. *Geo-Marine Letters* 42. DOI: 10.1007/s00367-022-00733-y. **(Impact factor: 1.836)**.
6. **Pokharia, A.K., Basumatary, S.K., Thakur, B., Tripathi, S.**, McDonald, H.G., **Tripathi, D., Tiwari, P.**, Asperen, E.V., Spate, M., Chauhan, G., Thakkar, M.G., Srivastava, A., **Agrawal, S.** (2022). Multiproxy analysis on Indian wild ass (*Equus hemionus khur*) dung from Little Rann of Western India and its implications for the palaeoecology and archaeology of arid regions. *Review of Palaeobotany and Palynology* 304. DOI: 10.1016/j.revpalbo.2022.104700. **(Impact factor: 1.940)**.

7. **Morthekai, P., Tiwari, P., Murari, M.K., Singh, P., Thakur, B., Manoj, M.C., Ali, S.N., Singh, V.K., Kumar, K., Rai, J., Dubey, N., Srivastava, P.** (2022). Further investigations towards luminescence dating of diatoms. *Radiocarbon Measurements* 156. DOI.: 10.1016/j.radmeas.2022.106803. **(Impact factor: 1.898).**
8. **Kapur, V.V., Kumar, K., Pandya, P.J., Ghosh, A.K., Chakraborty, A., Sharma, A., Chauhan, G., Thakkar, M.G.** (2022). Oldest Asian Record of Snapping Shrimps (Alpheidae) from Kutch Basin, Western India and Associated Biota: Biostratigraphic, Palaeoenvironmental and Palaeoecological Significance. *Acta Geologica Sinica*. DOI.: 10.1111/1755-6724.14951. **(Impact factor: 1.886).**
9. **Tripathi, D., Pokharia, A.K., Parmar, N., Kumar, P., Srivastava, A., Sharma, R.** (2022). Insights on Indus settlement in the palaeo-Saraswati basin, Bhiwani district, Haryana, India. *Current Science* 122(10):1126–1128. **(Impact factor: 1.102).**
10. **Sarath, P.K., Mangalaa, K.R., Cardinal, D., Gurumurthy, G.P., Dapoigny, A., Sarma, V.V.S.S., Riotteb, J.** (2022). Seasonal, weathering and water use controls of silicon cycling along the river flow in two contrasting basins of South India. *Chemical Geology* 604. DOI.: 10.1016/j.chemgeo.2022.120883. **(Impact factor: 4.015).**
11. **Devi, V., Atique, M.M., Raju, A., Upreti, G., Jigyasu, D.K., Yadav, J.K., Singh S., Kar, R., Singh, M.** (2022). Mercury transportation dynamics in the Ganga Alluvial Plain, India: rainwater–groundwater–river water interaction study from hotspot region. *International Journal of Environmental Science and Technology* 19: 4891–4900. DOI: 10.1007/s13762-021-03334-x. **(Impact factor: 2.860).**

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

