

Birbal Sahni Institute of Palaeosciences
Monthly summary on Research Activities
(August, 2021)

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 Activity/Programmes

a) One day workshop on “International Mangrove Day”

One day workshop on “International Mangrove Day” was jointly organized by BSIP and Mangrove society of India, Goa on July 26, 2021 through virtual mode.

b) Independence Day Celebrations (15 Aug 2021)

Flag hoisting ceremony and singing of national anthem was carried out on the occasion of Independence Day (15th Aug 2021). Dr Vandana Prasad, Director, BSIP emphasized and encouraged all the scientific, technical and administrative staff to work hard towards making geosciences at the centre stage of sustainable development. The event was attend by all staff members of the institute following COVID-19 guidelines.

c) Swachhata Pledge (15 Aug 2021)

In the context of Swachhata Action plan (SAP) 2020-21, Dr kamlesh Kumar, nodal officer, SAP, BSIP organized the Swachhata Pledge on 15 Aug 2021, which was recited by all scientific, technical and administrative staff members of the institute to spread awareness and instil cleanliness of the surroundings among all staff members of the institute.

d) Hindi workshop (18 Aug 2021)

A lecture on “कंप्यूटर पर हिंदी में टाइपिंग कैसे करें?”(How to type in Hindi on the Computer, using English Key-board) was delivered by Mr Y.P. Singh, TO- D, BSIP on August 18, 2021.

List of research publications (August, 2021)

1. Collep, C.L., McKenzie, N.R., Guenther, W.R., **Sharma, M.**, Gibson, T.M., Stockli, D.F. (2021). Apatite (U-Th)/Hethermochronometric constraints on the northern extent of the Deccan large igneous province. Earth and Planetary Science letters. DOI:10.1016/j.epsl.2021.117087.(**Impact factor:5.25**).

2. **Chakraborty, A., Ghosh, A.K., Saxena, S.** (2021). Neogene calcareous nannofossil biostratigraphy of the northern Indian Ocean: Implications for palaeoceanography and palaeoecology. *Palaeogeography, Palaeoclimatology, Palaeoecology* 579. DOI: 10.1016/j.palaeo.2021.110583. **(Impact factor: 3.31).**
3. Naskar, M., Blinnikov, M., **Ghosh, R.**, Das, S., Paruya, D.K., Majumdar, S., Bera, S. (2021). A diagnostic phytolithmorphotype found in *Porteresiacoarctata* (Roxb.) Tateoka indicates coastal swampy mangrove environments: A case study from the Indian east coast. *Flora* 282, Article no. 151884. DOI: 10.1016/j.flora.2021.151884 **(Impact factor: 2.08).**
4. Makwana, N., Prizomwala, S.P., Das, A., **Phartiyal, B.**, Sodhi, A., ChintanVedpathak, C. (2021). Reconstructing the Climate Variability During the Last 5000 Years From the Banni Plains, Kachchh, Western India. *Frontiers in Earth Sciences*. DOI: 10.3389/feart.2021.679689. **(Impact factor: 3.49).**
5. **Tiwari, N.**, Bhan, U. (2021). Middle Siwalik Charophyta from Mohand area, Dehradun Sub-Basin, NW Himalaya, India. *Journal of Palaeontological Society of India* 66 (1), 1–11. **(Impact factor: 0.705).**
6. Schwendimann, L., Sivaprakasam, I., Buvaneshwari, S., **Gurumurthy, G.P.**, Mishra, S., Ruiz, L., Sekhar, M., Fleiss, B., Riotte, J., Mani, S., Gressens, P. (2021). Agricultural groundwater with high nitrates and dissolved salts given to pregnant mice alters brain development in the offspring. *Ecotoxicology and Environmental Safety* 224. DOI: 10.1016/j.ecoenv.2021.112635. **(Impact factor: 6.29).**
7. Chopparapu, C., **Kavali, P.S.**, Rajanikanth, A. (2021). Auracarian dominated fossil forest from the Jurassic Koya Formation, Prahnita-Godavari Basin, India. *Journal of Palaeontological Society of India* 66 (1), 66–71. **(Impact factor: 0.705).**
8. Weerakoon, W.A.,P., Joshi, H., **Aggarwal, N.**, Jha, N., Jayasena, H.A.H., Yakandawala, D., Chandrajith, R., Ratnayake, N.P., Tiwari, P. (2021). Late Jurassic-Early Cretaceous palynostratigraphy and palaeoclimate in the Andigama Basin, Sri Lanka. *Journal of Asian Earth Sciences*: X, 6. DOI: 10.1016/j.jaesx.2021.100067.
9. Biswas, R., Karmakar, M., Biswas, O., Mukherjee, B., Paruya, D.K., **Ghosh, R.**, Bera, S. (2021). Phytolith spectra of some Panicoideae grasses from the Western Ghats region of Maharashtra, India. *Journal of Botanical Society of Bengal* 75 (1). 43–51.
10. Chinnappa, C., **Kavali, P.S.**, Rajanikanth, A., di Pasquo, M., Bernardes-de-Oliveira, M. E. C. (2021). Early Cretaceous flora from the East Coast sedimentary basins of India: Their chronostratigraphic and palaeobiogeographic significance. In book: *Mesozoic Stratigraphy of India, A Multi-Proxy Approach*. DOI: 10.1007/978-3-030-71370-6_17
11. **Ghosh, A.K.**, Chatterjee, R., **Pramanik, S.**, **Kar, R.** (2021). Radiation of Flora in the Early Triassic Succeeding the End Permian Crisis: Evidences from the Gondwana Supergroup of Peninsular India. In book: *Mesozoic Stratigraphy of India, A Multi-Proxy Approach*. DOI: 10.1007/978-3-030-71370-6_3.

12. Singh, A., Deori, N., Pandey, D.K., Shekhawat, R.S., Verma, P. (2021). Biostratigraphic Implications of the Calcareous Nannofossils from the Spiti Formation at Langza, Spiti Valley. In book: Mesozoic Stratigraphy of India, A Multi-Proxy Approach. DOI:10.1007/978-3-030-71370-6_15.

Photographs showing important highlights of major programs/research activities organized during August, 2021:

