

**Birbal Sahni Institute of Palaeosciences**  
**Monthly summary on Research Activities**  
**(December, 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 Research Programmes**

**a. Internal Complaint Committee (ICC), BSIP Awareness Lecture (December 9, 2021)**

With an aim to create gender parity and sensitization, BSIP Internal Complaint Committee organized an awareness talk on “Sexual harassment of women at workplace Prohibition and Redressal Act, 2013”. The talk was delivered online by Ms. Anchal Gupta, Advocate, High Court, Lucknow on December 09, 2021 and was attended by all the scientific, technical and administrative staff of the institute.

**b. 2<sup>nd</sup> Foundation Day Function, AOQR (December 12, 2021)**

Association of Quaternary researchers (AOQR) celebrated its second foundation day on December 12<sup>th</sup>, 2021. The chief guest of the function was Prof. Philip Gibbard, Scott Polar Research Institute, University of Cambridge, UK, who also delivered the foundation day talk on “The Anthropocene: an event, not a division of geological time”. The event was presided by Prof. D. M. Banerjee, Chairman, INSA-INQUA Committee and welcome address was delivered by Dr. Binita Phartiyal, Secretary, AOQR. The event was attended by professors, scientists, technical staff and research scholars from various institutes across India such as Wadia Institute, BSIP, Department of Geology, Lucknow University, Kumaon University etc.

**c. Hindi Workshop Lecture (December 21, 2021)**

With an aim to sensitize BSIP staff towards Hindi language, Dr. Neelam Das, Scientist-D, delivered a scientific lecture in Hindi on topic titled “Insect and Plants fossils in Early Cretaceous and their relation with vegetation”. The talk was delivered in online mode and was attended by all the scientific, technical and administrative staff of the institute.

### List of research publications (December 2021)

1. **Alam, M.,** Muguli, T., **Gurumurthy, G.P.,** Sohrin, Y., Tsujisaka, M., Singh, A.D., Takano, S., Verma, K. (2021). Palaeoredox reconstruction in the eastern Arabian Sea since the late Miocene: Insights from trace element and stable isotopes of molybdenum ( $\delta^{98/95}\text{Mo}$ ) and tungsten ( $\delta^{186/184}\text{W}$ ) at IODP Site U1457 of Laxmi Basin. *Palaeogeography, Palaeoclimatology, Palaeoecology* 587(21):110790. DOI.: 10.1016/j.palaeo.2021.110790. **(Impact factor: 3.31).**
2. **Farooqui, A., Agnihotri, R., Khan, S., Gahlaud, S.K.S.,** Sharief, M.U. (2021). Temporal variability in carbon and nitrogen stable isotopes of *Strobilanthes kunthianus* leaf: Its photosynthetic efficacy and water-use efficiency in a warming climate. *Journal of Earth System Science* 130, Article number: 241. DOI.: 10.1007/s12040-021-01737-5. **(Impact factor: 1.37).**
3. **Halder, P.,** Shukla, M.K., **Kumar, K., Sharma, A.** (2021). Mineralogical and Geochemical Evidence of Fluid-rock Interaction at the Shallow Crustal Level in Koyna Seismogenic Region, Maharashtra, India: Impact and Implications. *Acta Geologica Sinica* 95(S1), 40–43. **(Impact factor: 1.886).**
4. Mahajan, S., Sathe, V., **Rai, N., Agrawal, S.,** Chakraborty, S. (2021). Human tooth enamel carbon and oxygen stable isotope dataset from Chalcolithic Inamgaon (India). *Data in Brief*. DOI.: 10.1016/j.dib.2021.107711.

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

