

Birbal Sahni Institute of Palaeosciences
Monthly summary on Research Activities
(November, 2020)

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 Programmes:

a) Vigilance Awareness Integrity pledge (October 29, 2020)

Dr Anjum Farooqui, Chief Vigilance Officer, BSIP, along with Director, Dr (Mrs.) Vandana Prasad, scientists, technical and administrative staff took integrity pledge in the institute premises on 29th October 2020 to spread awareness and promote integrity, transparency and accountability in public life.

b) AOQR-INQUA ECR Interaction (November 02, 2020)

An online interaction between early career scientists under the banner Association of Quaternary Researchers (AOQR) and International Quaternary Association (INQUA) was organized on November 02, 2020. The discussion related to funding opportunities and schemes along with Neptune project were carried out. The meeting also emphasized the more structured editing and managing of Quaternary Perspective Magazine where quaternary researchers share their scientific views. The meeting was attended by more than 30 early career scientists from world over.

c) MoU between BSIP and Amity University, Maharashtra (November 03, 2020)

Virtual signing of memorandum of understanding (MoU) between BSIP and Amity University, Maharashtra was carried out on November 03, 2020. During the meeting, Director, Dr Vandana Prasad, RDCC chairman, Dr Anupam Sharma, along with scientists of Precambrian Palaeobiology Group were present. Salient features of MoU include the building and strengthening the research cooperation between two institutions in the field of Astrobiology and will work towards promoting cooperation in establishing the research infrastructure and man power training in the field of Astrobiology.

d) Founder’s Day Celebration (November 13-14, 2020)

BSIP celebrated Founder’s Day on November 13–14, 2020. On November 13, 2020, Prof. G.V.R. Prasad, Department of Geology, Centre for Advanced Studies, University of Delhi, Delhi delivered 50th Birbal Sahni memorial lecture on “*Biological Consequences of the northward journey of the Indian Plate*” and Prof. Robert J. Morley, Director, Palynova Ltd, Littleport, UK delivered the 64th Sir Albert Charles Seward memorial lecture on “*Plant dispersals from Africa to SE Asia and the age of Paleotropical rainforest*”. The event was attended by all the scientists, technical staff and research scholars of the institute by their physical presence as well as through online platform. On November, 14, 2020, floral tributes were offered to Late Prof Birbal Sahni on his Samadhi at the Institute premises by Director, Dr (Mrs.) Vandana Prasad, along with other scientific, technical and administrative staff members of the institute.

e) Felicitation ceremony of Hindi Pakhwada (fortnight) winners and BSIP COVID-19 team members (November 14, 2020)

Institute celebrated Hindi Pakhwada (fortnight) between September 10 to 24, 2020. During this period, various events like Hindi typing (computer), noting, poster competition, dictation (for Multi-Tasking Staff), essay writing, virtual debate and Kavi sammelan were organized. Prizes were distributed to the winners of all the competitions and the members of COVID-19 team of the Institute were also felicitated by the Director, Dr (Mrs.) Vandana Prasad for their tireless and remarkable work in BSIP COVID-19 testing laboratory on the eve of Founder’s day celebrations on November, 14, 2020.

f) Association of Quaternary Researchers (AOQR) Webinar series

Association of Quaternary Researchers (AOQR) with its headquarters at BSIP has organized a webinar series in which the selected Early Career Researchers from reputed organizations within India or abroad, present their data on emerging areas of research in Quaternary Science for the benefit of the larger Quaternary Science community. It is being conducted on a virtual platform in the months of September-October 2020. The lectures conducted in the month of the October 2020 are tabularised below:

Date	Resource Person & Affiliation	Title of the talk
29 th October, 2020	Dr. Santosh K Shah, Birbal Sahni Institute of Palaeosciences, Lucknow	Introduction to dendrochronology and its applications in climate research in Himalaya

g) COVID-19 testing Lab at BSIP, Lucknow

The COVID-19 Laboratory at BSIP is routinely (on a daily basis) receiving samples for Covid-19 testing from various districts of Uttar Pradesh. BSIP has received 18675

samples for COVID-19 tests in the month of October and November 2020 (23 Oct – 19 Nov.2020) out of which 18381 samples have been processed. The test results are being uploaded (on a daily basis) by a dedicated team of scientists and technical officers on the designated ICMR's and Uttar Pradesh's web-portals while all the Covid-19 test reports are being duly signed by the deputed microbiologist at BSIP. Meanwhile, BSIP COVID-19 lab has also achieved testing of more than 90,000 samples since the inception of laboratory in May this year. The details of sample testing report for the month of Aug 2020 is also tabularized below.

Birbal Sahni Institute of Palaeosciences, Lucknow									
COVID-19 sample testing report									
S.No.	Period	Total samples received	Total samples tested	Total samples negatives	Total samples positives	Total samples inconclusive	Total samples rejected	Under process	Total reported on ICMR portal
01	23 Oct – 19 Nov 2020	18675	18381	18128	210	43	294	0	18675

Photographs showing important highlights of major programs organized during November, 2020:

Birbal Sahni Institute of Palaeosciences, Lucknow							
COVID-19 Sample Daily Testing Report from 1st November, 2020							
Date of Sample Receiving	Day	No. of Samples Received	No. of Samples Processed	No. of Samples -ve	No. of Samples +ve	No. of Samples Inconclusive	No. of Samples Rejected
01-Nov	Sun	0	0	0	0	0	0
02-Nov	Mon	807	806	798	2	6	1
03-Nov	Tue	808	795	790	5	0	13
04-Nov	Wed	806	798	791	7	0	8
05-Nov	Thu	816	785	768	16	1	31
06-Nov	Fri	808	805	801	4	0	3
07-Nov	Sat	816	812	799	12	1	4
08-Nov	Sun	798	773	756	17	0	25
09-Nov	Mon	837	835	811	21	3	2
10-Nov	Tue	819	816	805	11	0	3
11-Nov	Wed	833	829	799	25	5	4
12-Nov	Thu	804	796	787	9	0	8
13-Nov	Fri	673	663	657	6	0	10
14-Nov	Sat	725	720	715	5	0	5
15-Nov	Sun	525	523	518	5	0	2
16-Nov	Mon	763	759	759	0	0	4
17-Nov	Tue	462	450	445	5	0	12
18-Nov	Wed	802	795	789	5	1	7
19-Nov	Thu	823	818	816	2	0	5
Total		13725	13578	13404	157	17	147

Research Papers published (November, 2020):

1. **Shukla, Y., Sharma, M.,** Noffke, N., Callefo, F. (2020). Biofilm microfacies in phosphoritic units of the Neoproterozoic Halkal Shale, Bhima basin, South India. *Precambrian Research* 349, 105501. DOI.: 10.1016/j.precamres.2019.105501. (**Impact factor: 4.42**).
2. **Bhatia, H., Srivastava, G.,** Spicer, R.A., Farnsworth. A., Spicer, T.E.V., **Mehrotra, R.C.,** Paudyal K.N., Valdes, P. (2020). Leaf physiognomy records the Miocene intensification of the South Asia Monsoon. *Global and Planetary Change* 196, 103365. DOI.: 10.1016/j.gloplacha.2020.103365. (**Impact factor: 4.48**).
3. **Phartiyal, B., Singh, R., Nag, D., Sharma, A., Agnihotri, R., Prasad, V.,** Yao, T., Yao. P., Karthick, B., **Joshi, P.,** Gahlaud, S.K.S., **Thakur, B.** (2020). Reconstructing climate variability during the last four millennia from trans-Himalaya (Ladakh-Karakoram, India) using multiple proxies. *Palaeogeography, Palaeoclimatology, Palaeoecology* 110142. (**Impact factor: 2.83**).
4. **Singh, A.K.,** Chakraborty, P.P. (2020). Shales of Palaeo-Mesoproterozoic Vindhyan Basin, central India: insight into sedimentation dynamics of Proterozoic shelf. *Geological Magazine*. DOI:10.1017/S0016756820001168 (**Impact factor: 2.65**).
5. Sharma, S., Chauhan, G., Shukla, A.D., Nambiar, R., Bhushan, R., Desai, B.G., **Pandey, S.,** Dabhi, M., Bhandari, S., Bhosale, S., Lakhote, A., Juyal, N. (2020). Causes and implications of Mid- to Late Holocene relative sea-level change in the Gulf of Kachchh, western India. *Quaternary Research*. DOI.: 10.1017/qua.2020.86 (**Impact factor: 2.31**).
6. **Ali, S.N., Sharma, A., Agrawal, S.,** Yadava, M.G., Jani, R.A., **Dubey, J., Morthekai, P.** (2020). Oxygen and deuterium isotope characteristics of Teesta river catchment from Sikkim Himalaya, India: Implications of different moisture sources. *Geochemical Journal*, 54, 327–336. DOI:10.2343/geochemj.2.0604 (**Impact factor: 1.1**).
7. **Chakraborty, A., Ghosh, A.K., Agrawal, S.** (2020). First record of *Ditrupa gracillima* (Annelida, Polychaeta) from the late Pliocene of Andaman and Nicobar Basin: insights on the ultrastructure, stable isotopic signature and distribution pattern. *Micropaleontology*, 66 (6), 491–501. DOI.: 10.47894/mpal.66.6.02 (**Impact factor: 1.36**).

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