



Workshop on **Applied Biostratigraphy in Mineral & Hydrocarbon Exploration**

20 - 22 November, 2019

Organized by

The Palaeontological Society of India (PSI)

in association with

**Centre of Advanced Studies in Geology,
Lucknow University**

(In Commemoration of Lucknow Univ. Centenary Celebrations)

&

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THE PALAEONTOLOGICAL SOCIETY OF INDIA,

CAS-GEOLOGY, LUCKNOW UNIVERSITY,

LUCKNOW 226007

VENUE

**CENTRE OF ADVANCED STUDIES IN GEOLOGY, LUCKNOW UNIVERSITY AND
BIRBAL SAHNI INSTITUTE OF PALAEOSCIENCES, LUCKNOW**

The Palaeontological Society of India (PSI), Lucknow

The Palaeontological Society of India was founded on the 26th January, 1950 by a Memorandum of Association signed by eminent Academicians such as Dr. M. R. Sahni, Dr. Rajnath, Dr. S. R. Narayan Rao, Dr. R. C. Misra, Dr. B. S. Tewari, Dr. S. N. Singh and Mr. A. D. Kharkawal for promotion of science of palaeontology & geology in the Department of Geology, University of Lucknow. The Society was registered under "Society Registration Act XXI", 1860 on 12-08-1950 at Lucknow. The Society is a Corporate Member of the International Palaeontological Association (IPA) and Member of the Federation of Indian Geosciences Association (FIGA).

The Society is instrumental in organizing scientific meetings, conferences and field workshops on the topics of contemporary issues in geology and palaeontology. Its activities include publication of the Journal of the Palaeontological Society of India, Field Guide Books, Catalogues, Monographs, Atlas, Special Publications etc. and organising memorial lectures and International Fossil Day. The Society also confers various awards, medals to encourage and promote the discipline of Palaeontology amongst the academicians, professionals, young researchers and students in India. The lecture series includes Prof. M. R. Sahni Memorial Lecture, Prof. S. N. Singh Memorial Lecture and Prof. R. C. Misra Memorial Lecture. The six meritorious medals and lifetime achievement awards by the Society are promoting outstanding contributions by the researchers in geosciences.

With over 300 Fellows and Members, the Society is continuously expanding educational activities to spread and promote fossil research in India. Regional Student chapters have also been initiated throughout the country and are actively working under the guidance of respective Regional Coordinators as well as the central body at Lucknow. The flagship Journal of The Palaeontological Society of India is being published since 1956 and bears ISSN no. 0522-9360 with citation index at 0.663.

CAS in Geology, University of Lucknow, Lucknow

The Department of Geology, University of Lucknow, is one of the pioneer departments of India and is known all over the world for its contribution to the Earth Science, especially in the fields of Sedimentology, Micropaleontology and Himalayan Geology. The department was established in 1942 by the late Prof. Birbal Sahni, F.R.S. Some of the early luminaries from the department include Prof. S. R. N. Rao, Prof. H. L. Chhibber, Prof. P. N. Ganju, Prof. R. C. Misra and Prof. S. N. Singh. Since then many eminent professors and scientists have glorified different fields of geology. Many students have reached to higher positions in national & international organisations. The department was also responsible for initiating the Directorate of Geology & Mining in the state of Uttar Pradesh and establishment of the Wadia Institute of Himalayan Geology, Dehradun.

The department houses the Palaeontological Society of India since it's inception, which is promoting Palaeontology besides publishing internationally recognised journal and other publications regularly. The department received financial support through DRS, DSA & COSIST, CAS, PURSE programs of UGC & DST. It helped installation of basic instrumental facilities and rated as Excellent by DST under the FIST program. Currently, the department is running UG-PG and specialised courses under the guidance of the present faculty, expert lecturers and emeritus faculties.

The department possesses good infrastructure facilities that caters to the need of both teaching as well as advanced research and is carrying out research work in major fields of the Earth Sciences. The equipment that department has include X-Ray Diffraction System (XRD), Atomic Absorption Spectrophotometer (AAS), Scanning Electron Microscope (SEM), Logitech Rock Cutting/Thin Section preparation System, microscopes and different processing systems. A well-furnished lab for processing of remote sensing data, two field vehicle, well equipped library and geology museum are also available. Presently research work is carried out in the fields of deformational studies of the Himalayan belt, Glaciology, environmental geochemistry of gangetic foreland basin, Proterozoic Palaeobiology, Engineering Geology, Ground water investigation & quality assessment. The present workshop on the Applied Biostratigraphy in Mineral & Hydrocarbon Exploration is being conducted in the department under the Centenary Celebrations of The University of Lucknow.

Birbal Sahni Institute of Palaeosciences, Lucknow

Professor Birbal Sahni, FRS, established the Institute in the year 1946 for the development of science of Palaeobotany visualizing its potential to understand the origin and evolution of plant life and to use the knowledge of fossil plants in resolving various geologic problems, including

exploration of fossil fuels. The Institute is named after him as the Birbal Sahni Institute of Palaeobotany (BSIP). Mandate of BSIP has been expanded recently to widen the scope of palaeobotanical researches by combining it with other areas of Palaeosciences, and creating modern facilities to achieve this. The Institutes, now renamed as Birbal Sahni Institute of Palaeosciences, and is presently functioning as an autonomous research organization under the Department of Science and Technology (DST), Ministry of Science and Technology, Government of India.

The main mission of BSIP is to achieve excellence in R & D work through a dedicated scientific team. The research activities are diversified and include biostratigraphic dating, correlation of surface and subsurface sediments, and exploring areas favourable for fossil fuel deposits. The main research work is concerned with the understanding of plant evolution through geological time. Emphasis has been made to derive knowledge about the diversification of Precambrian life, diversity, distribution and inter-basinal correlation of Gondwana and Tertiary floras, coal/lignite quality and to understand the interaction between the climate and change of vegetation and ecosystem in Quaternary Period. The Institute holds national / international scientific meets from time to time and publishes catalogues, atlases, besides publishing an international journal 'The Palaeobotanist' periodically.

The Institute Museum has rich repository of fossils collected from India and all over the world. A special attraction is the foundation stone with 77 fossils embedded by Prof. Sahni, which was laid by Pt. Jawaharlal Nehru in 1949. The Institute has the richest collection of literature on the Palaeoscience with facilities like conventional radiocarbon dating laboratory, TL/OSL dating, IRMS, ICP-MS, GC-MS, XRF systems. Establishment of Palaeomagnetic, Ancient DNA laboratories, FE-SEM, CHNS analyzer, Confocal Laser and Raman Spectroscopy and XRD are recent add-ons.

Themes

- STRATIGRAPHY CONCEPTS
- SEDIMENTARY ROCKS: COMPONENT, CLASSIFICATION & SEDIMENTATION
- IMPORTANT FOSSIL GROUPS IN MINERAL & HYDROCARBON EXPLORATION
- BIOSTRATIGRAPHIC TECHNIQUES & GEOLOGICAL AGE MARKERS
- SEQUENCE BIOSTRATIGRAPHY
- DEPOSITIONAL ENVIRONMENT
- WELL SITE BIOSTRATIGRAPHY

About Lucknow

Lucknow is the capital city of the north Indian state of the Uttar Pradesh and is also the administrative headquarters of the district and division. Geomorphologically, Lucknow is situated in the Central Alluvial Plain of the Ganga Basin, in the region of Ghaghara-Ganga interfluve. The Lucknow township is located on the banks of Gomati River. In the Lucknow area, the Gomati River exhibits distorted meandering indicating neotectonic activity in the recent past. This area exhibits three distinct geomorphic surfaces with their characteristics features, namely, the Upland Terrace Surface (T2) or Upland Interfluve, River Valley Terrace Surface (T1), and Active Flood Plain Surface (T0).

Lucknow is also known for handcrafted embroidery works including chikankari, zari, zardozi, kamdani and gota making. A seat of culture and royalty for long periods in history, Lucknow is also known for its delicious food, sweets, kulfi, paan and uncountable varieties of Awadhy cuisine. The world famous classical Indian dance form Kathak originated from Lucknow and is flourishing along with other art forms. Lucknow is also known for many academic and industrial institutions of all types and subjects including Medical sciences, Life sciences, Earth Sciences and others.

Objective

**ADVANCED TRAINING AND TECHNOLOGY
TRANSFER BY DOMAIN SPECIALISTS &
PROFESSIONALS FROM INDUSTRY &
ACADEMIA TO THE PRACTICING
BIOSTRATIGRAPHERS AND GEOSCIENTISTS
FOR MINERAL & HYDROCARBON
EXPLORATION**

Lead Sponsors

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