**CURRICULUM VITAE**

**Name : Dr. Biswajeet Thakur**

**Designation :** Scientist – D

**Mailing Address :**Birbal Sahni Institute of Palaeobotany

53 - University Road,

Lucknow (Uttar Pradesh)

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 Indira Nagar

 Lucknow (Uttar Pradesh)

 India – 226016

**EDUCATIONAL BACKGROUND:**

**2012: Doctor of Philosophy (Geology)** from Geology Department, University of Lucknow, Lucknow on the topic entitled **“Surface and shallow sub-surface study of Rapti–Gandak interfluves”.**

**2005 :** P. G.Diploma in Petroleum Exploration from Annamalai University, Chidambaram.

**2002 :** Post Graduation (M.C.A) from IGNOU, Lucknow, India.

**2001 :** Post Graduation (M.Sc.) from Geology Department, University of Lucknow, Lucknow, India

**1999 :** Graduation (B. Sc) from the University of Lucknow, Lucknow, India

**1996 :** Intermediate (Science Group) from the CBSE Board, India

**1994 :** High School (Science Group) from the ICSE Board, India

**PROFESSIONAL EXPERIENCE**

* From 01/01/2013 to present: Working as **Scientist-C** in the Birbal Sahni Institute of Palaeobotany, Lucknow, India. Currently engaged in the Palaeobiological studies of Quaternary sediments of western coastal margins and off-shore regions of Indian subcontinent (Arabian Sea).
* From 01/02/2006 to 31/12/2012: **Scientist-B** in the Birbal Sahni Institute of Palaeobotany, Lucknow, India. Working on the diversified role of diatoms and palynofacies in the implications of productivity related signals, role of runoff related changes during monsoonal fluctuations and environmental changes.
* From 21/03/2004 to from 31/01/2006: **Project Scientist** at Remote Sensing Applications Centre (RSAC), Lucknow, Uttar Pradesh (CSIR) at Department of Geology, University of Lucknow, Lucknow. The use of remote sensing (RS) and geographical information system (GIS) for the preparation and development natural resources inventory in Uttar Pradesh. The work encompassed preparation of thematic layers viz. geomorphology, hydro-geomorphology, lithological mapping, watershed mapping, lineament and structural mapping of various districts of Uttar Pradesh. The preparation of the Digital Elevation Models from the SRTM data and to produce cost beneficial report of the stream ordering, morphometry and basin analysis of the entire districts. The GIS mapping of the various thematic layers included the integration of the different thematic and to develop an automated action plan for the development and environmental parameters mainly for agricultural practices, flood inundation mapping and land use characterization for socio-economic benefits.

**FIELD OF SPECIALISATION**:

* Micropalaeontology and Stratigraphy of Quaternary sediments of Indian Subcontinent.
* Remote sensing and GIS applications for the development of microfossil domain.

**CURRENT RESEARCH INTEREST:**

My objective incorporates working to analyze climate change based on multi-proxy data from the diversified geographical regions of India (western coastal margins and offshore regions of Arabian Sea). My research aim is to develop the understanding of climate change from local to global geographical extent and precise time scales, spatial and temporal variations in palaeoproductivity and palaeoecology reconstruction, signature of relative sea level changes and monsoonal behaviour pattern using diatoms and palynofacies datasets. Moreover, I would like to gain knowledge about the possible relationship of nutrients, CHNS and isotopic variations with the biological inputs and possible linkages with regard to diatoms.

**SPONSORED PROJECT / RESEARCH EXPERIENCE:**

1. Primary productivity and environmental related changes on the basis of temporal and spatial distribution of diatoms and palynofacies in water and sediment samples in estuary, mudbanks and marine environment and their application in subsurface sediments for high resolution palaeoclimatic interpretations.
2. Characterization of diatoms, organic matter and their spatial distribution in surface and subsurface sediments in the oxygen minima zone (OMZ) region.
3. Interpreting the proximal–distal trends based on diatoms, palynofacies studies, marine palynomorphs and terrestrial components for deciphering runoff related changes based on monsoonal fluctuations from Vembanad estuary.
4. Application of statistical tools for inferring species richness and diversity indices for pursuing high resolution palaeoclimatic and sea level fluctuations along the south-west Indian coast.

**PUBLICATIONS:**

1. Tripathi, D., Chauhan, D., Farooqui, A., Kotlia, B, **Thakur, B.,** Morthekai P., Long, T., Chauhan, M.S., Pokharia, A. 2016. Late Quaternary climatic variations in Central Ganga Plain, inferred from multiproxy study of Karela Jheel (Lake) sediments. Quaternary International. <http://dx.doi.org/10.1016/j.quaint.2016.11.033>
2. Manoj, M.C. Thakur, B., Prasad, V. 2016. Rare earth element distribution in a tropical coastal wetland: influence of the sediment texture and redox conditions. Arabian Journal of Geosciences. 9:197. DOI 10.1007/s12517-015-2246-0. (I.F. – 1.2).
3. Rachna Raj, R., Chamyal, L.S., Juyal, N. Binita Phartiyal, B., Ali, S.N. and Thakur, B. 2016. Late Quaternary fluvio-aeolian interaction: palaeoenvironment and palaeoclimatic conditions in the pediment zone of Vatrak River basin, western India. Zeitschrift für Geomorphologie, 60(2): 151–169. (I.F. – 1.1).
4. Thakur, B. Srivastava, J., PremRaj, U., Manoj, M. C., Prasad, V. 2015. Role of sedimentary processes and environmental factors in determining the distribution pattern of marine and terrestrial palynomorphs and diatoms in a tropical coastal wetland. Journal of Paleontological Society of India. 60(2):71-84. (I.F. – 0.457).
5. Gupta, A., Thakur, B., Shukla, A., and Dhruv Sen Singh, D.S. 2015. Geo-Environmental Assessment of Loni Nala Sub-Unit, Gomati Basin, India, UsingGIS Technique. Earth Science India, Vol. 8 (II), April, 2015, pp. 32-49. eISSN: 0974 – 8350.
6. Tripathi, S., Basumatary, S.K., Singh, V.K., Bera, S.K., Chandra, M.N., **Thakur, B**. **2014**. Palaeovegetation and climate oscillation of western Odisha, India: A pollen data-based synthesis for the Mid-Late Holocene. Quaternary International. 325: 83-92. **(IF –2.150).**
7. Verma, A., **Thakur, B.**, Katiyar, S., Singh, D. and Rai, M. **2013**. Evaluation of ground water quality in Lucknow, Uttar Pradesh using remote sensing and geographic information systems (GIS). (Accepted 24 January, 2013). International Journal of Water Resources and Environmental Engineering. 5(2), pp. 67-76, February, 2013.
8. Prasad, V., Singh, I.B., Bajpai, S., Garg, R., **Thakur, B.**, Singh, A., Saravanan, N. and Kapur, V.V. **2013**. Palynofacies and sedimentology-based high-resolution sequence stratigraphy of the lignite-bearing muddy coastal deposits (early Eocene) in the Vastan Lignite Mine, Gulf of Cambay, India. Facies**,** 59 (4), 737-761, DOI 10.1007/s10347-012-0355-8. **(IF – 1.771).**
9. **Thakur, B.**; Prasad, V. and Garg, R. 2012. Primary productivity and organic matter distribution during SW and NE monsoon: A case study from Alleppey mudbanks, Kerala, India. *Current Science.*103(7): 809-817.
10. Verma, A., **Thakur, B.**, Rai., V. and Kumar, K. 2012. *International Agricultural Journal*. Study of relationship between water table and soil degradation in Sharda Sahayak canal command in Barabanki district, Uttar Pradesh, India. 7(2): 128-134.
11. Garg, R., Prasad, V., **Thakur, B.**, Singh, I.B., Khowaja-Ateeqazazaman., 2011, Dinoflagellate cyst from the Naredi Formation, Southwestern Kutch, India: Implication on age and paleoenvironment: Journal of Paleontological Society of India, v.56 (2), p. 201-218.
12. Sharma, A., Kumar, K., Prasad, V. and **Thakur., B.** 2011. *Current Science*. Diatom distribution and its relationship with water quality in the Mahi River Basin. 101(8). 1011-1015.
13. Prasad, V., A Farooqui, Tripathi, S K M., Garg, R., and **Thakur, B.**  2009. *J. Biosciences*. Evidence of Late Paleocene-Early Eocene equatorial rain forest refugia in Southern Western Ghats, India.
14. Prasad, V., Garg, R., Singh, V., and **Thakur, B**. 2007. *Indian Journal of Marine Sciences*. Organic matter distribution pattern in Arabian Sea: Palynofacies analysis from the surface sediments off Karawar coast (west coast of India). 36(4). 399-406.

**PARTICIPATION IN CONFERENCES/TRAINING PROGRAMMES:**

|  |  |  |
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| 1. Participated in Diamond Jubilee Int. Conf. Changing Scenario in Palaeobotany & Allied Subjects conference and presented poster on “Diatoms from marine sediments as indicators of monsoon related run off in eastern Arabian Sea”, BSIP, Lucknow. pp. 167.
2. Industry –Academia Interface: Petrotech.
3. Participated in XXII Indian Colloquium on Micropalaeontology and Stratigraphyheld at BSIP, Lucknow and presented poster entitled “Distribution of recent diatoms in the surface sediments of Alleppey and Mararikulam South, Off Kerala Coast”. pp. 224.
4. Participated in the GEO India 2008 Expo XXI .
5. Participated in Plant Life through Ages and presented poster on “Diatoms from surface sediments off Bhatkal region, eastern Arabian Sea: a potential proxy for palaeoenvironmental interpretations”. pp. 188-189.
6. Participated in Pre-XXII Indian Colloquium Workshop on Applications of Micropalaeontology in Environmental and Energy Resource Management.
7. Participated in XXII Indian Colloquium on Micropalaeontology and Stratigraphyand presented poster entitled “Primary productivity and organic matter distribution study during SW and NE monsoon: A case study from Alleppey mudbanks, Kerala”. pp. 20.
8. Presented paper in Interdisciplinary Approaches in Environmental Sciences entitled “Effect of water chemistry on Fresh water Planktic Diatom distribution in sub-tropical Western Indian region: a case study from the Mahi River Basin”.
9. Rainwater harvesting modeling for sustainable development of ground water resource in Lucknow district, Uttar Pradesh. National Conference on Science of Climate Change and Earth’s Sustainability: Issues and Challenges ‘A Scientist-People Partnership’. pp. 108.
10. GIS based modeling and impact assessment of urbanization on natural characteristics of Gomti Basin: A case study of Loni watershed. National Conference on Science of Climate Change and Earth’s Sustainability: Issues and Challenges ‘A Scientist-People Partnership’. pp. 39.
11. Study of Diatom assemblages from OMZ in the surface sediments off Ponnani coast, Arabian Sea. 7th International Conference of Asian Marine Geology. pp. 100
12. Differential primary productivity pattern in an estuarine setting: A case study from Vembanad estuary. XXIII Indian Colloquium on Micropalaeontology and Stratigraphy and International Symposium on Global Bioevents in the Earth History. pp. 24

  | 16th – 17th November, 200616-18, January 200715-16, November200717 – 19 September, 200816-17, November, 2008.14-15 December, 200916-18December, 20099-10 October, 201012-14 September, 201112-14 September, 201111-14 October, 20119-11 December, 2011 | BSIP, LucknowPragati Maiden, New DelhiBSIP, LucknowGreater Noida sponsor: ONGC LtdBSIP, LucknowPG and Research Department of GeologyNational College, Tiruchirapalli PG and Research -do-Deptt. of Zoology. MS University Baroda, Vadodara, GujaratLucknow University, LucknowLucknow University, LucknowNIO, GoaBangalore University, Bangalore |

1. **Thakur, B.** and Rai, J. Biotic responses in Harshad estuary, Saurashtra- a tidal analogue. 9th NABS National Conference on New Biological Researches: Opportunities and Challenges for Sustainable Development (*Agriculture, Biology, Energy, Environment, Health and Climate Change*), organized by the School of Energy, Environment and Natural Resources, Madurai Kamaraj University, Madurai and **National Academy of Biological Sciences (NABS)**, Chennai, Tamil Nadu, August 11 & 12, 2016. p. 252.
2. S. Nawaz Ali, **Thakur, B.**, Morthekai, P., Phartiyal, B. and Sharma, A. A Preliminary study on Diatom distribution in high altitude of Zanskar Valley, Trans-Himalaya, Ladakh. International Conference on **3rd NECLIME Asian Meeting** held at Birbal Sahni Institute of Palaeosciences, Lucknow from February 23-27, 2016. p. 5.
3. Phartiyal, B., Sharma, A., Singh, R., Nag, D., Prasad, V., Farooqui, A., **Thakur, B.** and Joshi, P. Late Quaternary Climate records from Ladakh region of western Tibet. International Conference on **3rd NECLIME Asian Meeting** held at Birbal Sahni Institute of Palaeosciences, Lucknow from February 23-27, 2016. pp. 40-41.
4. Rai, J., **Thakur, B.** and Desai, B.S. Late Miocene integrated Nannofossil-Diatom Biostratigraphy from Neill Island, Andaman Sea, India. International Conference on **3rd NECLIME Asian Meeting** held at Birbal Sahni Institute of Palaeosciences, Lucknow from February 23-27, 2016. pp. 44-45.
5. Monga, P., **Thakur, B**. and Kumar, M. Record of colonial alga *Botryococcusbraunii* in Gondwanic and post-Gondwanic sediments. International Conference on **Current perspectives and emerging issues in Gondwana evolution** held at Birbal Sahni Institute of Palaeosciences, Lucknow from 19-20 Feb, 2015.
6. **Thakur, B.**, Srivastava, J., Udandam, P., Manoj, M.C. and Prasad, V. Role of sedimentary processes and environmental factors in determining the distribution pattern of diatoms and marine/terrestrial palynomorphs in a tropical coastal wetland. National Conference on **Quaternary Climate Change: New approaches and emerging Challenges** held at Birbal Sahni Institute of Palaeosciences, Lucknow from December 15-16, 2014. p.137.
7. Raj, R., Chamyal, L.S., Juyal, N., Phartiyal, B. Ali, S.N., and **Thakur, B**. Palaeoenvironment and palaeoclimatic conditions in the piedmont zone of Vartak River Basin, western India. National Conference on **Quaternary Climate Change: New approaches and emerging Challenges** held at Birbal Sahni Institute of Palaeosciences, Lucknow from December 15-16, 2014. p. 95
8. Das, S.K., Ghosh, S., Nautiyal, C.M., Tripathi, S., Basumatry, S.K., Ghosh, R., **Thakur, B.,** Singh, M.C. and Kushwaha, R.S. Palaeoclimate reconstructions using Lake Lotak sediment: A progress report. National Conference on **Quaternary Climate Change: New approaches and emerging Challenges** held at Birbal Sahni Institute of Palaeosciences, Lucknow from December 15-16, 2014. p. 35.
9. Arya, A.K., **Thakur, B.**, Singh, A. Water quality assessment using microbiological proxies from Gomti River, Lucknow, Uttar Pradesh, India. National Conference on **Quaternary Climate Change: New approaches and emerging Challenges** held at Birbal Sahni Institute of Palaeosciences, Lucknow from December 15-16, 2014. p. 1.
10. **Thakur, B.** and Singh, S. Diatoms as a tool for inferring lake level changes: A case study from Karela Jheel, Lucknow, Uttar Pradesh. National Seminar on **Groundwater and Lakes: Recent Advancements and Environmental Aspects.** Gondwana Geological Society, Nagpur 20-21 February, 2014.
11. **Thakur, B.** and Singh, D.S. Morphometric parameters and its implications in Rapti-Gandak interfluves. **Expert Meet and Conference on Climate Change and Environmental Sustainability: Records from Poles to Tropics.** Centre of Advanced Study in Geology, Lucknow University, Lucknow, 9 – 10, September 2014, p. 22.
12. **Thakur, B.,** Singh, V.K., Tripathi, S., Basumatary, SK, Bera, SK & Nautiyal, CM – Diatom based study of flood plain sediments from western Odisha, India to decipher monsoonal fluctuations since Mid-Holocene. **National Conference on Recent Developments in Plants and Earth Science** held at Birbal Sahni Institute of Palaeosciences, Lucknow from November 28-29, 2013. p. 136.
13. Tripathi, S., Basumatary, S.K., Singh, V.K., Bera, SK, Nautiyal, C.M. & **Thakur, B.** Palaeovegetation and climate oscillation of western Odisha, India: A pollen data-based synthesis for the Mid-Late Holocene. **National Conference on Recent Developments in Plants and Earth Science** held at Birbal Sahni Institute of Palaeosciences, Lucknow from November 28-29, 2013. p. 139.
14. Arya, A.K., **Thakur, B.,** Gupta, V. Water quality assessment using diatoms and heavy metals from Gomti River, Lucknow, Uttar Pradesh, India. **National Conference on Recent Developments in Plants and Earth Science** held at Birbal Sahni Institute of Palaeosciences, Lucknow from November 28-29, 2013. p. 24.
15. Panchang, R. **Thakur, B.** Parthiban, G. Current Environmental status of the Vasishthi estuary: Attributable to man or climate change? **XXIVth Indian Colloquium on Micropaleontology and Stratigraphy**, Dehradun, 18 - 21, November 2013, p. 86.
16. Premraj, U., Thakur, B. and Prasad, V. Organic walled Dinoflagellate cysts from the west coast of India in relation to environmental conditions. **XXIVth Indian Colloquium on Micropaleontology and Stratigraphy**, Dehradun, 18 - 21, November 2013, p. 99.
17. Rao, S., **Thakur, B.** and Singh, S. Diatoms from Karela Jheel, Lucknow, Uttar Pradesh for palaeoenvironmental implications. **XXIVth Indian Colloquium on Micropaleontology and Stratigraphy**, Dehradun, 18 - 21, November 2013, pp. 115-116.
18. **Thakur, B.,** Prasad, V. and Anand, K. Diatoms as a proxy to decipher monsoonal behaviour during late Quaternary, Vembanad estuary. **XXIVth Indian Colloquium on Micropaleontology and Stratigraphy**, Dehradun, 18 - 21, November 2013, pp. 115-162.

**AWARDS:**

## Recipient of **3rd Best Poster Prize** at XXIII Indian Colloquium on Micropalaeontology and Stratigraphy and International Symposium on Global Bioevents in the Earth History. 9-11 December, 2011. Department of Geology, Bangalore University, Bangalore for **“Differential primary productivity pattern in an estuarine setting: A case study from Vembanad Estuary”.**

**TRAINING DELIVERED**

1. Diatoms from surface sediments and its relation to water chemistry from Harshad estuary, Gujarat: Microenvironment analyses in dynamic coastal ecosystem. 2nd June – 2nd August, 2016 BIRBAL SAHNI INSTITUTE OF PALAEOSCIENCES

**Neelam Dixit**

1. Diatoms based phytoplankton and their spatial distribution in Harshad estuary, Gujarat for micro-environment reconstruction 2nd June – 2nd August, 2016. BIRBAL SAHNI INSTITUTE OF PALAEOSCIENCES

**Deepmalika Tripathi**

1. Palynological studies of late Quaternary sediments of Nayarambalan, Vembanad wetland, Kerala, India 01-06-2014 to 30-06-2014 BIRBAL SAHNI INSTITUTE OF PALAEOSCIENCES.

**Ms. Vinita Chugh**

1. Diatoms study of Cherai beach sediments, Vembanad estuary, Kerala for palaeoenvironmental implications. 07 June-07 August, 2013 BIRBAL SAHNI INSTITUTE OF PALAEOSCIENCES.

**Ms. Khushboo Anand**

1. Diatoms study from Karela Jheel, Lucknow, Uttar Pradesh for inferring lake level changes. 07 July –30 September, 2013. BIRBAL SAHNI INSTITUTE OF PALAEOSCIENCES

**Ms. Shalini Singh**

**PROJECT (RUNNING)**

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| --- | --- | --- | --- | --- | --- |
| **Project Title** | **Whether completed or in progress** | **Duration** | **Amount of grant** | **Sponsoring agency** | **Co-investigator (s) if any** |
| Late Quaternary biotic-abiotic interactions from the Harshad estuary, Gujarat, India: Implications on palaeo-productivity and climate.(SR/FTP/ES-149/2014) | In progress | 3 years | Rs. 13,92,000/- | SERB-DST  | NA |
| Late Quaternary Palaeoclimatic/ sea level changes and anthropogenic responses from estuarine complexes of western India: A multi-proxy approach.SB/EMEQ/244-2014 | In progress | 3 years | Rs. 41,83,056/- | EMEQ-DST | NA |

**SCHOLARSHIPS AWARDED**

1. Awarded Junior Research Fellowship of CSIR-UGC NET (Earth Sciences).
2. Awarded Lectureship of UGC NET (Computer applications).

**VISITS IN INDIA AND ABROAD:**

1. Participated in SK237 cruise in collaboration with NIO, Goa during 2007 in Arabian Sea.
2. Carried field excursion under XIth five year research project in Vembanad estuary.
3. Participated in Meghalaya field component to learn the varied facets of older sediment in geological studies and palaeoclimate investigations.

**MEMBERSHIPS IN SOCIETIES:**

1. Working as Co-Editor in an open access journal www.earthscience.info from 2010.

**(Biswajeet Thakur)**