

Curriculum Vitae



Personal details:

Name in full: Dr. (Mrs.) Abha Singh

Present position: Scientist D

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Area of interest: -Mesozoic & Cenozoic Calcareous nannofossil biostratigraphy
-Palaeobiogeography, paleoecology & Palaeoenvironmental studies
-Oceanic Anoxic Events

Professional details:

Educational Qualification:

- Ph.D. in Geology from University of Lucknow in 2012.
Title of the Ph.D. Thesis: **“Subsurface Cretaceous calcareous nannofossil biostratigraphy from Tanot Bore Well-1, Jaisalmer Basin, Rajasthan, India”**
- M. Sc. in Geology from University of Lucknow in 2004.
- B. Sc. in Geology, Chemistry and Botany from University of Lucknow in 2002.
- Intermediate from CBSE board in 1998.
- High school from CBSE board in 1996.

Additional academic qualifications:

- Proficiency in French language from University of Lucknow, UP.

Awards & Recognitions:

- Attended felicitation ceremony as **Chief guest** at Bal Nikunj Inter College, Sri Nagar Mohibullapur, Lucknow for the felicitation of class-wise top-5 students in Half Yearly Examination-2022 on November 22, 2022.
- Awarded **First prize on poster** entitled “*Calcareous nannofossil and dinoflagellate cyst records from Lumpy Clay Member of Maniyara Fort Formation, Kutch: an age implication*” presented in 12th Symposium on Fossil Algae, 16-24 September 2019.
- Bagged **First Prize on Poster** entitled “*Palynological and biostratigraphical investigations of the well Punam-1, Bikaner-Nagaur Basin, western Rajasthan with remarks on Upper carbonate succession*” in International Conference Current Perspective and Emerging issues in Gondwana evolution, 19-20 February 2015.
- **Examined undergraduate Research Project** entitled “*Early Miocene to middle Paleocene calcareous nannofossil and palynomorphs biostratigraphy, Mannar Basin, Sri Lanka*” of Miss. P.A.S.R.D. Perera, University of Peradeniya, Peradeniya, Sri Lanka as External Examiner in year 2015.

- Bagged consolation prize in “Galti Dhundho Pratiyogita” on 24th September 2015 at BSIP, Lucknow.
- Bagged consolation prize in “Galti Dhundho Pratiyogita” on 30th September 2014 at BSIP, Lucknow.
- Awarded **First Prize on Paper presentation** entitled “*Tanot Formation, a new Santonian-early Maastrichtian age subsurface lithostratigraphic unit from Tanot Bore Well-1, Jaisalmer Basin, Rajasthan, Western India*” in Geoyouth- 2K11 at Mohanlal Sukhadia University, Udaipur in 2011.

Theses supervised

- Supervising Ph.D. Thesis of Ms. Nazim Deori, K.S.K.V. Kachchh University as Co-guide on the topic “High resolution biostratigraphy and depositional environment of Cenozoic succession of Kachchh Basin, Western India, Gujarat.” (continuing)
- Supervised M. Phil Thesis of Ms. Siyumini Perera, University of Peradeniya, Sri Lanka as External Supervisor on the topic “Calcareous Nannofossils as Late Paleocene to Early Miocene archives of paleoenvironment and paleoclimate in Mannar Basin, Sri Lanka.” (Thesis awarded July, 2018).

Professional Research Experience:

Organisation Where worked	Period		Post Held	Pay-Scale	Nature of Duties	Reasons for Leaving
	From	To				
Birbal Sahni Institute of Palaeosciences	27 th October 2005	27 th June 2006	Technical assistant in a DST sponsored project	Rs. 6000/- (Consolidated)	Technical works for palynologic al studies	Selected as BSRS
	02-04-2007	01-04- 2011	Birbal Sahni Research Scholar (BSRS)	Rs. 16,800/- (Consolidated)	Research	Tenure completed
	22 nd November 2011	21 st January 2013	Junior Research Fellow	Rs. 19,200/- (Consolidated)	Research	Selected as Scientist- B

- From 21st January, 2013 to present working as Scientist at different levels in Birbal Sahni Institute of Palaeosciences.

Sponsored projects (as Co-PI)

- SERB-DST Project entitled “Biostratigraphy of Kerala Basin based on palynology and calcareous nannofossils: implications on palaeovegetation and palaeoclimate.” (May 2018-April 2021).

Collaborative project (as Co-PI)

- To initiate collaboration with ONGC RGL Vadodara, **Dr. Abha Singh**, lead the team and paid visit to the RGL Vadodara for a week and examined already prepared palynological and paleontological slides and based on the examination a collaborative project between ONGC RGL Vadodara and BSIP was formulated, finalized, submitted and awarded for funding (February, 2022 to February, 2024).

Consultancy

- Consultancy for calcareous nannofossil has been done on Punam Well -1 samples drilled by Oil India Limited, Jodhpur in Bikaner-Nagaur Basin (location RBAO), NELP-VI Exploration Block RJ-ONN-2004/2, western Rajasthan. The depth of the well was 1297 m showing basement of Malani volcanics. The studied sedimentary succession between 90-1260 m intervals was studied. The sedimentary succession in descending order indicated Shumar (Quaternary); Tertiary; Jaisalmer + Lathi (Mesozoic); Bap-Bhaddaura (Permian); Upper Carbonate; Nagaur, Hanserian Evaporite Group (HEG), Bilara, Jodhpur (Marwar Supergroup-Ediacara-Cambrian) underlain by Malani Volcanic Suite. The palynological investigations carried out on studied succession revealed no age diagnostic microfossil/ palynomorph of Early Palaeozoic (Cambrian) age in the Upper Carbonate unit instead low productivity of palynomorphs of Permian affinity has been recorded. Overlying Bap-Badhaura succession has yielded a rich Permian assemblage typical of several Gondwana successions of peninsular India. The outcropping Badhaura Formation is known to contain marine invertebrate fauna. The occurrence of Permian age diagnostic palynomorphs from the Upper Carbonate may indicate that this unit may be Permian instead of Lower Palaeozoic (Cambrian) age. Deposition of such a thick carbonate succession may indicate marine influence.

Lecture delivered

- Lecture delivered **Role of microfossils in petroleum exploration** Under AcSIR Course – B3.4 at BSIP (April 12, 2021).
- Lecture delivered **Outline of morphology of microfossils and modern biogeography** Under AcSIR Course – B3.4 at BSIP (March 23, 2021).
- Lecture delivered **Types of Microfossils (Calcareous & Phosphatic) Basic concepts** Under AcSIR Course – B3.4 at BSIP (March 01, 2021).
- Lecture delivered on **Biostratigraphic Zones**. Under AcSIR Course – B3.1 at BSIP (February 12, 2021).
- Lecture delivered on **Evolution and Development shapes and size** online lecture under AcSIR Course – 64-ID-002 Course title-Evolutionary biology and ecology at BSIP (November 20, 2020).
- Lecture delivered on **Reviewing Literature and Identifying a question to be answered/solution of a problem to be sought** online lecture under AcSIR Course – 1a Research Problem Identification and Research Design/Plan Module at BSIP (October 23, 2020).

- Lecture delivered on **Coccolithophore (Nannoplankton): An Introduction** (Invited talk) in 3-Days International E- Workshop on “Advanced Micropalaeontology” during 25th -27th August, 2020 organized by Department of Geology & Environmental Science, Christ Collage, Irinjalakuda, Kerala in collaboration with Department of Geology, University of Madras, Chennai (August 27, 2020)..
- Lecture delivered on **Calcareous Nannoplankton: a tool to assign age and environmental changes** at Postgraduate Institute of Sciences, University of Peradeniya, Sri Lanka (June 22, 2018).
- Lecture delivered on **Contributions of BSIP in International Nannofossil Association Meeting (INA-16) held at Athens, Greece** at BSIP, Lucknow (December 11, 2017).
- Lecture delivered on **The big realm of minute nannofossils**, to M.Sc. Geology students at Department of Geology, University of Rajasthan, Jaipur (January 1, 2015).
- Lecture delivered on **Late Cretaceous nannofossil studies from Jaisalmer basin and its implications**, at B.S.I.P., Lucknow (March 14, 2013).
- Lecture delivered on **Calcareous nannofossil biostratigraphy – A preliminary study from western Indian Cretaceous succession**, at BSIP, Lucknow in BSIP Friday Lecture Series (July 25, 2008).

Professional memberships

- Life member of the Palaeontological Society of India.
- Life member of the Palaeobotanical Society of India.
- Life Member, The Society of Earth Scientists.

Representation in committees/Board

- Member, Canteen sub-committee constituted regarding formulation of “Office Automation” (OM no. BSIP/Committee/2022-23/L-758 dated 22.07.2022)
- Convener, Institute’s Canteen Management committee.
- Member, Screening Committee to shortlist the applications of Biological Sciences under AcSIR Ph.D. Programme at BSIP for January, 2022 session. (15th November, 2021)
- Member, selection committee of AcSIR Ph.D. Programme August, 2021 session (Reserve (OBC) category representative) at BSIP 29th June, 2021.
- Member, selection committee of AcSIR Ph.D. Programme January, 2022 session (Women & Reserve (OBC) category representative) at BSIP 24th December, 2021.
- Member, Selection Committee for the recruitment of LDC at BSIP.
- Centre Supervisor, Objective type written test for the post of LDC at BSIP, held on 08.12.2021 at UPPSC Bhawan Aliganj, Lucknow.
- Member, selection committee for 2 posts of Project Assistant & 2 posts of Technical Assistant in the BSIP-ONGC collaborative project (17th February 2022; L-1497)
- Member, selection committee for the recruitment of Multi Tasking Staff-I at BSIP held on 26.03.2022 (OM no.BSIP/Rec.{MTS}/2021-22 dated 17.03.2022)

- Convener, screening committee to shortlist the applications of Lower Division Clerk (LDC) and Multi Tasking Staff (MTS) post (Advt. No. BSIP/Rec./09/2020).
- Member, judging panel for debate competition in Hindi Fortnight (10-24 September, 2020) held on 22nd September, 2020.
- Member, Supervising committee for functioning of AcSIR Ph.D. programme from 2020-2023 (OM No. BSIP/2020-21/L-269 dated 15/07/2020).
- Member of committee constituted for finalization/proof reading (for Hindi version) of Annual Report of the institute for the financial year 2018-19.
- Member, Institute's Canteen Management committee.

List of research paper published:

- 25 research papers published in peer reviewed journals. (Total Impact Factor=23.834)
 - Also published more than 40 abstracts and deputed to attend in several national and international conferences/ seminars/ workshops/ exhibitions/ meeting/ Trainings.
1. Singh YP, Verma P, **Singh A**, Bali R. 2022 Early Miocene (Burdigalian) dinoflagellate cysts from the Kerala Basin, southwest India: indicators of marine ingression at the onset of the Mid-Miocene Climate Optimum (MMCO). *Journal of the Geological Society of India* (JGSI-D-22-00194, Accepted on 05-09-2022). (**IF: 1.466**)
 2. **Singh A**, Jain S, Benzaggagh M, Schweigert G, Salamon MA, Mulugeta M. 2022 Late Tithonian nannofossils from Dejen area, the Blue Nile Basin, central western Ethiopia. *Palaeoworld*, doi.org/10.1016/j.palwor.2022.10.003 (Accepted on 26 October 2022). (**IF: 2.717**)
 3. **Singh A**, Deori N, Pandey DK, Shekhawat RS, Verma P. 2021. Biostratigraphic Implications of the Calcareous Nannofossils from the Spiti Formation at Langza, Spiti Valley. In: Mesozoic Stratigraphy of India: A Multi-proxy approach, Banerjee S, Sarkar S, (eds.), Society of Earth Scientists Series, Springer, pp. 429-442.
 4. Shukla A, Mehrotra RC, Verma P, Chandra K, **Singh A**, 2021. "Out-of-India" dispersal for Adina (tribe Naucleaeae; family Rubiaceae): evidence from the early Eocene fossil record from India. *Palaeoworld* 30 (4): 737-745. doi.org/10.1016/j.palwor.2021.01.001. (**IF: 2.717**)
 5. Manoj MC, **Singh A**, Verma P, Govil P, Kawsar M, Uddandam PR, Prasad V. 2020. Marine Micropalaeontology: An overview of Indian Contributions During 2016-2019. *Proceedings of Indian National Science Academy* 86 (1): 419-444.

6. Jain S, **Singh A.** 2019. First calcareous nannofossil record from the Jurassic strata exposed in the Blue Nile Basin (Ethiopia). *Journal of African Earth Sciences* 158: 103553. (IF – 2.468)
7. Verma P, **Singh A.** 2019. Early Oligocene (Rupelian) dinoflagellate cysts and calcareous nannofossils from Lumpy Clay Member of Maniyara Fort Formation, Kutch, Gujarat, India. *Current science* 116 (9): 1571-1580. (IF – 1.102)
8. **Singh A.** 2018. Latest Maastrichtian palaeoclimatic and depositional environmental perturbations, a record from *Micula prinsii* Zone of Meghalaya, northeastern India. *The Palaeobotanist* 67: 209-219.
9. Verma P, **Singh A.** 2018. Palynology of Cenozoic successions of Kerala Basin: a review from the perspective of biostratigraphy and palaeoclimatic studies. *The Palaeobotanist* 67: 99-111.
10. Rai J, **Singh A.** 2018. A catalogue of calcareous nannofossil records from India. Birbal Sahni Institute of Palaeosciences, pp. 1-157.
11. **Singh A**, Perera S, Dahanayake K, Gunatilake J. 2017. Calcareous nannofossil biostratigraphy and its palaeoenvironmental implications from Mannar Basin, Sri Lanka. *Journal of the Palaeontological Society of India* 62 (2): 225-236. (IF: 0.833)
12. **Singh A**, Rai J. 2017. Cretaceous calcareous nannofossils from Tanot #1, Jaisalmer Basin, Rajasthan, Western India: morphotaxonomy and biostratigraphy. *The Palaeobotanist* 66: 85-176.
13. Rai J, Bajpai S, Kumar R, **Singh A**, Kumar K, Prakash N. 2016. The earliest marine transgression in western India: new insights from calcareous nannofossils from Lathi Formation, Jaisalmer Basin. *Current Science* 111 (10): 1631-1639. (IF – 1.102)
14. Rai J, Prakash N, Pandey DK, Fürsich FT, Alberti M, **Singh A**, Garg S, Swami N. 2016. A Middle Oxfordian (Jurassic) flora from the Kachchh Basin, western India, with the earliest record of bennettitaleans from the subcontinent. *Geophytology* 46 (2): 133-146.
15. **Singh A**, Rai J, Garg R. 2016. Record of Late Eocene (Priabonian) nannofossils from the lower part of the Rewak Formation, Garo Hills, Meghalaya, northeastern India. *Journal of the Palaeontological Society of India* 61 (1): 91-97. (IF: 0.833)
16. Rai J, Prasad M, Prakash N, **Singh A**, Garg S, Gupta M, Pandey DK. 2016. Gymnosperm fossil woods from Gangta Bet, eastern Kachchh, western India. *Journal of the Palaeontological Society of India* 61 (1): 111-122. (IF: 0.833)

17. Rai J, Garg S, Gupta M, **Singh A**, Pandey DK, Fürsich FT, Alberti M, Garg R. 2015. Integrated biostratigraphy of the Jurassic strata of the Wagad Uplift, Kachchh, western India. *Volumina Jurassica*, XIII (2): 55-80.
18. Rai J, **Singh A**, Gulati D. 2014. Bartonian age calcareous nannofossil biostratigraphy of Tanot well-1, Jaisalmer basin and its implications. *Journal of the Palaeontological Society of India* 59 (1): 29-44. **(IF: 0.833)**
19. Prasad V, Farooqui A, Sharma A, Phartiyal B, Chakraborty S, Bhandari S, Raj R, **Singh A**. 2014. Mid-late Holocene monsoonal variations from mainland Gujarat, India: A multi-proxy study for evaluating climate culture relationship. *Palaeogeography, Palaeoclimatology, Palaeoecology* 397: 38-51. **(IF – 3.318)**
20. Prasad V, Singh IB, Bajpai S, Garg R, Thakur B, **Singh A**, Saravanan N, Kapur VV. 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* 59:737-761. **(IF – 2.211)**
21. Rai J, Mishra VP, Sahni A, **Singh A**, Vega FJ. 2013. On some Paleogene and Neogene crabs of Kachchh, Western India. *Bulletin of the Mizunami Fossil Museum*, no. 39: 39-45.
22. Rai J, **Singh A**, Garg R. 2013. Calcareous nannofossils of Albian age from Tanot Well-1, Jaisalmer Basin, Rajasthan and its palaeobiogeographic significance. *Palaeontological Society of India Journal* 58 (1): 67-73. **(IF: 0.833)**
23. Rai J, **Singh A**, Pandey DK. 2013. Early to Middle Albian age calcareous nannofossils from Pariwar Formation of Jaisalmer Basin, Rajasthan, western India and its significance. *Current Science* 105 (11): 1604 - 1611. **(IF – 1.102)**
24. Rai J, Malarkodi N, **Abha** 2013. Terminal Maastrichtian age calcareous nannofossils preceding K/T mass extinction from Ariyalur Formation, Vridhachalam area, South India. *Journal of the Geological Society of India Special Volume Malarkodi*, Kellar G, Reddi N, Jaiprakash BC. (eds.) pp. 439- 477. **(IF – 1.466)**
25. Rai, J, **Abha** 2010. Nannofossils and its applications. *Gondwana Geological Magazine* 25 (1): 149-159.