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Scientist–‘D’

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RESEARCH INTEREST

Diatoms, Micropalaeontology, Palaeoceanography, Paleoclimatology

ACADEMIC CAREER

- Ph.D. in Botany (2007), University of Lucknow, Lucknow, India.
- Master of Science in Botany (2003), C.S.J.M. University, Kanpur, India.

RESEARCH CAREER

- **Scientist – ‘D’** (Jan. 2022 – till date), Birbal Sahni Institute of Palaeosciences.
- **Scientist – ‘C’** (Jan. 2018 – Dec. 2021), Birbal Sahni Institute of Palaeosciences.
- **SERB Overseas Postdoctoral Fellow** (Dec. 2017 – Dec. 2018), EPOC, UMR-CNRS, Université de Bordeaux, France.
- **Visiting Scientist** (June–Aug. 2017), MARUM – Center for Marine Environmental Sciences, University of Bremen, Germany.
- **Scientist – ‘B’** (Oct. 2013 – Dec. 2017), Birbal Sahni Institute of Palaeosciences.
- **U.G.C. Dr. D.S. Kothari Postdoctoral Fellow** (Sep. 2011 – Oct. 2013), Marine Science Department, Goa University.
- **Scientific Committee on Antarctic Research Fellow** (Jan.–April 2011), EPOC, UMR-CNRS, Université de Bordeaux, France.
- **Research Scientist – ‘C’** (Jan. 2010 – July 2011), National Centre for Polar & Ocean Research.
- **Research Associate** (Jan. 2008 – Jan. 2010), National Centre for Polar & Ocean Research.
- **Senior Research Fellow** (April 2006 – Jan. 2008), Department of Botany, University of Lucknow.
- **Junior Research Fellow** (April 2004 – April 2006), Department of Botany, University of Lucknow.

AWARDS

- SERB Overseas Postdoctoral Fellowship 2016-17.
- Indian National Science Academy (INSA) Award for International Bilateral Exchange Programme 2017.
- PAGES Travel Grant 2013 for 4th Polar Marine Diatom Taxonomy and Ecology Workshop at Cardiff University, Wales, U.K.
- U.G.C. Dr. D.S. Kothari Postdoctoral Fellowship 2011.
- Best Poster Presentation in National Seminar on modern and palaeo sediments & XXVIII Convention of Indian Association of Sedimentologists, 24th – 26th Nov. 2011, at Jawaharlal Nehru University, New Delhi.
- Scientific Committee on Antarctic Research (SCAR) Fellowship 2010 by International Council of Science.

WORKSHOPS/EXPEDITIONS

- 1st PAGES C-SIDE (Cycles of Sea Ice dynamics in the Earth System) Workshop (23rd to 26th Oct. 2018) at Simon Fraser University, Vancouver, Canada.
- 4th Polar Marine Diatom Taxonomy and Ecology Workshop (4th –9th Aug. 2013) at Cardiff University, Wales, U.K.
- Education Course in Asia Pacific Interfinish 2010 and extended training on Secondary Ion Mass Spectrometry of diatoms at National University of Singapore at Biopolis, Singapore (19-10-2010 to 23-10-2010).
- Participation in 3rd Indian Scientific Expedition to Southern Ocean (19-02-2009 to 20-03-2009).
- Participation in 2nd Indian Scientific Expedition to Arctic, 2008 (28-07-2008 to 28-08-2008).
- Participation in a multidisciplinary cruise onboard ORV Sagar Kanya to Tropical Indian Ocean (27-01-2008 to 18-02-2008).
- Workshop on Taxonomy of freshwater Algae at Centre for Advanced Studies in Botany, Madras University, Chennai, 2004, sponsored by AICOPTAX, Ministry of Environment & Forest, New Delhi.

PUBLICATIONS

- Farooqui, A., Khan, S., Agnihotri, R., Phartiyal, B., and **Shukla, S.** 2023. Monitoring hydroecology and climatic variability since ~4.6 ka from palynological, sedimentological and environmental perspectives in an ox-bow lake, Central Ganga Plain, India. **The Holocene**. <https://doi.org/10.1177/09596836231183067>
- **Shukla, S.K.***, Crosta, X., and Ikehara, M. 2023. Synergic role of frontal migration and silicic acid concentration in driving diatom productivity in the Indian sector of the Southern Ocean over the past 350 ka. **Marine Micropaleontology**, 181, 102245. <https://doi.org/10.1016/j.marmicro.2023.102245>
- Agarwal, S., **Shukla, S.K.***, Srivastava, P., and Sundriyal, Y. 2023. Peat sequence diatoms from Kedarnath, Central Himalaya, used to reconstruct mid-late Holocene hydroclimatic conditions. **Palaeogeography, Palaeoclimatology, Palaeoecology**, 612, 111381. <https://doi.org/10.1016/j.palaeo.2022.111381>
- Crosta, X., Kohfeld, K.E., Bostock, H.C., Chadwick, M., Du Vivier, A., Esper, O., Etourneau, J., Jones, J., Leventer, A., Müller, J., Rhodes, R.H., Allen, C.S., Ghadi, P., Lamping, N., Lange, C.B., Lawler, K.-A., Lund, D., Marzocchi, A., Meissner, K.J., Menviel, L., Nair, A., Patterson, M., Pike, J., Prebble, J.G., Riesselman, C., Sadatzki, H., Sime, L.C., **Shukla, S.K.**, Thöle, L., Vorrath, M.-E., Xiao, W., and Yang, J. 2022. Antarctic sea ice over the past 130 000 years – Part 1: a review of what proxy records tell us. **Climate of the Past**, 18, 1729-1756. <https://doi.org/10.5194/cp-18-1729-2022>
- **Shukla, S.K.***, Crosta, X., and Ikehara, M. 2021. Sea surface temperatures in the Indian Sub-Antarctic Southern Ocean for the last four interglacial periods. **Geophysical Research Letters**, 48, e2020GL090994. <https://doi.org/10.1029/2020GL090994>
- Farooqui, A., Pillai, S.K., Agnihotri, D., Khan, S., Tewari, R., **Shukla, S.K.**, Ali, S., Trivedi, A., Pandita, S.K., Kumar, K., Bhat, G.D., and Agnihotri, R. 2021. Impact of climate on the evolution of vegetation in tectonically active Karewa basin, Kashmir Himalayas. **Journal of Earth System Science** 130, 93. <https://doi.org/10.1007/s12040-021-01586-2>
- Crosta, X., **Shukla, S.K.**, Ther, O., Ikehara, M., Yamane, M., and Yokoyama, Y. 2020. Last Abundant Appearance Datum of *Hemidiscus karstenii* driven by climate change. **Marine Micropaleontology**, 157, 101861. <https://doi.org/10.1016/j.marmicro.2020.101861>
- Nair, A., Ghadi, P., Mohan, R., Manoj, M.C., Crosta, X., **Shukla, S.K.**, and Thamban, M. 2020. Glacial-interglacial flux and size variability of *Fragilariopsis kerguelensis* and *Thalassiosira lentiginosa* from the Indian sector of the Southern Ocean. **Deep Sea Research Part II: Topical Studies in Oceanography**, 178, 104746. <https://doi.org/10.1016/j.dsr2.2020.104746>
- **Shukla, S.K.***, and Romero, O. 2018. Glacial valve size variation of the Southern Ocean diatom *Fragilariopsis kerguelensis* preserved in the Benguela Upwelling System, southeastern Atlantic. **Palaeogeography, Palaeoclimatology, Palaeoecology**, 499: 112-122. <https://doi.org/10.1016/j.palaeo.2018.03.023>

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- **Shukla, S.K.***, and Crosta, X. **2017**. *Fragilariopsis kerguelensis* size variability from the Indian subtropical Southern Ocean over the last 42 000 years. **Antarctic Science**, 29(2): 139-146. <https://doi.org/10.1017/S095410201600050X>
 - **Shukla, S.K.***, Crespin, J., and Crosta, X. **2016**. *Thalassiosira lentiginosa* size variation and associated biogenic silica burial in the Southern Ocean over the last 42 kyrs. **Marine Micropaleontology**, 127, 74-85. <https://doi.org/10.1016/j.marmicro.2016.07.006>
 - **Shukla, S.K.***, Crosta, X., Cortese, G., and Nayak, G.N. **2013**. Climate mediated size variability of diatom *Fragilariopsis kerguelensis* in the Southern Ocean. **Quaternary Science Reviews**, 69, 49-58, <https://doi.org/10.1016/j.quascirev.2013.03.005>
 - **Shukla, S.K.***, and Mohan, R. **2012**. The contribution of diatoms to worldwide crude oil deposits” In: The Science of Algal Fuels: Cellular Origin, Life in Extreme Habitats and Astrobiology, Eds. R. Gordon & J. Seckbach. Dordrecht, Springer, Vol. 25: 355-382. https://doi.org/10.1007/978-94-007-5110-1_20
 - **Shukla, S.K.**, and Sudhakar, M. **2011**. Comparison of modern and fossil diatom assemblages and the implication on sea-ice conditions in coastal Antarctic region. **Mausam**, 62(4): 659-664.
 - Mohan, R., **Shukla, S.K.**, Patil, S.M., Shetye, S.S., Kerkar, K.K. **2011**. Diatoms from surface sediments of Enderby Basin of Indian Sector of Southern Ocean. **Journal of Geological Society of India**, 78(1): 36-44.
 - Shetye, S.S., Mohan, R., **Shukla, S.K.**, Sudhakar, M., and Ravindra, R. **2011**. Variability of *Nonionellina labradorica* Dawson in surface sediments from Kongsfjorden, West Spitsbergen. **Acta Geologica Sinica**, 85(3): 549-558.
 - Anilkumar, N., Mohan, R., **Shukla, S.K.**, Pednekar, S.M., Sudhakar, M., and Ravindra, R. **2010**. Signature of coastal upwelling in Prydz Bay, East Antarctica during austral summer 2006. **Current Science** 99(10): 1390-1394.
 - Mohan, R., **Shukla, S.K.**, Patil, S.M., Shetye, S.S., Kerkar, K.K., and Ravindra, R. **2010**. Diatom morphometry and its application to decipher past climatic changes. **Gondwana Geological Magazine** 25(1): 133-138.
 - **Shukla, S.K.**, Mohan, R., and Sudhakar, M. **2009**. Diatoms a potential tool to understand past oceanographic settings. **Current Science** 97(12): 1726-1734.
 - Mohan, R., **Shukla, S.K.***, Anilkumar, N., Sudhakar, M., Prakash, S., and Ramesh, R. **2009**. Relative microalgal concentration in Prydz Bay, East Antarctica during late austral summer, 2006. **Algae** 24(3): 139-147.
 - **Shukla, S.K.**, Misra, P.K., and Shukla, C.P. **2009**. Cyanophycean Algae from the foothills of Indo-Western Himalaya. **Ecoprint, Nepal** 16: 65-73.

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- Dwivedi, R.K., Shukla, C.P., Misra, P.K., **Shukla, S.K.**, and Seth, M.K. **2009**. On desmids from Southern Himachal Pradesh of Indo-Western Himalaya. **Feddes Repertorium** 120(3-4): 236-249.
 - **Shukla, S.K.**, Shukla, C.P., and Misra, P.K. **2008**. Desmids (Chlorophyceae, Conjugales, Desmidiaceae) from foothills of Western Himalaya, India. **Algae** 23(1): 1-14.
 - **Shukla, S.K.**, Shukla, C.P., and Misra, P.K. **2008**. Three taxa of Pennate diatom *Nitzschia* Hassall from foothills of Western Himalaya. **Proceedings of National Academy of Sciences, Allahabad Sect. B** 78(IV): 358-361.
 - Dwivedi, R.K., **Shukla, S.K.**, Shukla, C.P., Misra, P.K., and Seth, M.K. **2008**. Cyanophycean flora of Southern Himachal Pradesh, India. **Ecoprint, Nepal** 15: 29-36.
 - **Shukla, S.K.**, Misra, P.K., and Shukla, C.P. **2007**. Chlorococcalean algae from the foothills of Indo-Western Himalaya. **Journal of Indian Botanical Society** 86(3&4): 80-85.
 - Misra, P.K., Rai, A.K., and **Shukla, S.K.** **2007**. Some fresh water desmids from Kumaon Himalaya. **Journal of Applied Biosciences** 33(1): 53-58.
 - Misra, P.K., Rai, A.K., Chauhan, R.S., and **Shukla, S.K.** **2007**. Algal flora of Naukuchia Tal, Nainital district, Uttaranchal state. **Journal of Indian Botanical Society** 86(1&2): 71-77.
 - Misra, P.K., Chauhan, R.S., and Shukla, S.K. **2007**. Some fresh water diatoms from Almora district, Uttaranchal state. **Journal of Indian Botanical Society** 86(3&4): 74-79.
 - Misra, P.K., **Shukla, S.K.**, and Chauhan, R.S. **2006**. Some fresh water bacillariophycean algae from foothills of Western Himalayas, India. **Phytotaxonomy** 6: 111-115.
 - Misra, P.K., and **Shukla, S.K.** **2006**. Some freshwater diatoms from Uttaranchal state. **Journal of Applied Biosciences** 32(1): 74-80.
 - Report - Stroynowski, Z., Minzoni, R., **Shukla, S.K.** **2014**. 4th Polar Marine Diatom Taxonomy and Ecology Workshop. **PAGES Magazine** 22(1): 48.