



UNIVERSITY OF CALCUTTA

FACULTY ACADEMIC PROFILE

Saurav Moktan PhD FLS FEHT

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ACADEMIC QUALIFICATIONS

Degree	College/University
B.Sc (Hons.)	Darjeeling Government College
M.Sc.	University of North Bengal
Ph.D	University of North Bengal

PROFESSIONAL EXPERIENCES

- Worked as an Assistant Professor (WBES), Department of Botany, Gorubathan Government College, Gorubathan, Kalimpong.
- Worked as an Assistant Professor (WBES), Post-Graduate Department of Botany, Darjeeling Government College, Darjeeling.
- Worked in FRLHT Project for the exploration of three MPCAs (Medicinal Plant Conservation Area) in North Bengal located at North Sevoke, Sushruti and Raja Bhatkhawa Forests.
- Worked at National Research Centre for Orchids (ICAR), Pakyong, Sikkim under “DUS Testing Project” under central sector scheme for implementation of Plant Variety Protection (PVP) Legislation.

RESEARCH AREAS

- Plant Taxonomy & Biosystematics
- Biodiversity & Conservation
- Plant Ecology
- Ethnobotany & Medicinal Plants

RESEARCH GUIDANCE

- Number of researchers pursuing M.Phil/Ph.D : 04

SCIENTIFIC PUBLICATIONS (Journals)

- Boral, D. & **Moktan, S.** Prediction models using maximum entropy for suitable habitats in the present and future scenarios for rare and endemic *Codonopsis affinis* in Darjeeling eastern Himalaya. *Vegetos*, **2024**.
- Boral, D. & **Moktan, S.** Modelling current and future potential distribution of medicinal orchids in Darjeeling eastern Himalaya. *Plant Ecology*, **2024**.
- Rai, P., Bhutia, K. & **Moktan, S.** Comparative study on root anatomy of six species of Himalayan *Dendrobium* Swartz. *Flora*, 310: **2024**.
- Tolangay, D. & **Moktan, S.** An insight into woody species in sub-temperate forest ecosystem in Darjeeling Himalaya, India: An evaluation of species composition and diversity. *Jour. Trop. For. Sci.*, 36(1): 51 – 67, **2024**.
- Tolangay, D., Pradhan, B. & **Moktan, S.** Estimating tree species diversity and composition in temperate forests of Darjeeling Himalaya, India. *Jour. Ind. Bot. Soc.*, **2024**.

- Mondal, S. & **Moktan, S.** Implications of stipe and midrib morpho-anatomy on the taxonomy of Polypodiaceous ferns. *Phytotaxa*, 613(3): 213 – 233, **2023**.
- Mondal, S. & **Moktan, S.** Comparative morpho-anatomical study in *Pyrrosia* (Polypodiaceae) from Darjeeling Himalaya, India. *Thai. Nat. Hist. Mus. Jour.*, 17(1): 45 – 65, **2023**.
- Rai, P. & **Moktan, S.** Vascular epiphytic community along elevational zone in sub-tropical forest ecosystem. *Taiwania*, 68(2): 217 – 229, **2023**.
- Mondal, S. & **Moktan, S.** Comparative rhizome anatomy of polypodiaceous ferns from eastern Himalaya and its taxonomic implications. *Flora*, 308: **2023**.
- Rai, P. & **Moktan, S.** Variation in vascular epiphytic assemblage along altitudinal zone in Temperate forest ecosystem. *Asian Jour. Conserv. Biol.*, 11(2): 247 – 257, **2022**.
- Boral, D. & **Moktan, S.** Species distribution modeling of a Cucurbit *Herpetospermum darjeelingense* in Darjeeling Himalaya, India. *Jour. Threat. Taxa*, 14(12): 22221 – 22231, **2022**.
- Mondal, S. & **Moktan, S.** Micro-morphological characters in Polypodiaceae and its taxonomic significance. *Webbia*, 77(2): 285 – 305, **2022**.
- Mondal, S. & **Moktan, S.** Study on the morpho-anatomy of *Lepisorus* species through light microscopy and scanning electron microscopy and its systematic implications. *Micro. Res. Tech.*, 1 – 16, **2022**.
- Rai, P. & **Moktan, S.** Diversity of Epiphytic Fern and Fern Allies in Darjeeling Region of Eastern Himalaya, India. *Ind. Jour. Ecol.*, 49(6): 2282 – 2290, **2022**.
- Mondal, S., Nath, A. & **Moktan, S.** Taxonomic study on the subfamily Crypsinoideae of Polypodiaceae from Darjeeling Himalaya, India. *Pleione*, 16(3): 318 – 329, **2022**.
- Rai, P. & **Moktan, S.** An updated checklist of vascular epiphytes in the Darjeeling Himalaya, India. *Check List*, 18 (6): 1279 – 1319, **2022**.
- Tolangay, D. & **Moktan, S.** Assessment of carbon stock and sequestration potential in sub- tropical forests of Darjeeling, eastern Himalaya. *Proc. Int. Acad. Ecol. Envir. Sci.*, 12(4): 352 – 366, **2022**.
- Boral, D. & **Moktan, S.** Mapping the spatial distribution of the invasive Mexican Sunflower *Tithonia diversifolia* (Asteraceae) in South East Asia. *Jour. Asia-Pac. Biodiv.*, 15(2022): 425 – 434, **2022**.
- **Moktan, S.**, Mondal, S., Boral, D. & Rai, P. The fate of *Diplomeris hirsuta* (Lindl.) Lindl.: A vulnerable Orchid in Darjeeling region of eastern Himalaya, India. *Eco. Env. Conserv.*, 27(3): 1174 –1179, **2021**.
- Mukherjee, S. & **Moktan, S.** Quantitative Ethnobotanical study on traditional use of medicinal plants in Malda district of West Bengal, India. *Int. Jour. Sci. Res. Rev.*, 10(2): 47 – 65, **2021**.
- Boral, D. & **Moktan, S.** Predictive distribution modeling of *Swertia bimaculata* in Darjeeling-Sikkim Eastern Himalaya using MaxEnt: current and future scenarios. *Ecological Processes*, 10(26): 1 – 16, **2021**.
- Sikder, A. & **Moktan, S.** Cypselas diversity in some members of Compositae through LM study and its taxonomic significance. *Micros. Res. Techniq.*, 1 – 12, **2021**.
- Rai, P. & **Moktan, S.** Diversity and Distribution of Vascular Epiphytic Flora in Sub- temperate Forests of Darjeeling Himalaya, India. *Ann. Res. Rev. Bio.*, 35(5): 63 –81, **2020**.
- Nirola, S., **Moktan, S.** & Das, A.P. Occurrence of *Ariopsis protanthera* N.E. Br. (Araceae) in Darjeeling Hills: A new record for the flora of West Bengal, India. *Pleione*, 14(2): 355 – 359, **2020**.
- **Moktan, S.** & Rai, P. Ethnobotanical approach against respiratory related diseases and disorders in Darjeeling region of eastern Himalaya, *NeBIO*, 10(2): 99 –105, **2020**.
- Tolangay, D. & **Moktan, S.** Trend of studies on carbon sequestration dynamics in the Himalaya hotspot region: A review. *Jour. App. Nat. Sci.*, 12(4): 647 – 660, **2020**.

- Mondal, S. & **Moktan, S.** A Paradoxically Significant Medicinal Plant *Carapichea ipecacuanha*: A Review. 54(2s): s56 – s66, **2020**.
- Lungphi, P., Mondal, S., **Moktan, S.** & Das, A.P. Leaf architectural studies in *Phyllanthus* L. (Phyllanthaceae) from Arunachal part of Eastern Himalaya in India. *Int. Res. Jour. Bio. Sci.*, 8(10): 38 –47, **2019**.
- Maity, D. & **Moktan, S.** Japanese cedar (*Cryptomeria japonica* D. Don, Taxodiaceae) flowers in Arun Kumar Sharma Botanic Garden (AKSBG) at Kolkata, West Bengal, India. *Pleione*, 13 (2): 385 –388, **2019**.
- Karmakar, D., **Moktan, S.** & Das, A.P. Foliar micro-morphological traits in some members of Ericaceae from Darjeeling Himalaya. *Pleione*, 11(2): 341 – 348, **2017**.
- Tiwary, B.K., Ghosh, R., **Moktan, S.**, Ranjan, V.K., Dey, P., Choudhury, D., Dutta, S., Deb, D., Das, A.P. & Chakraborty, R. Prospective bacterial quorum sensing inhibitors from Indian medicinal plant extracts. *Letf. App. Microb.* (65): 2 – 10, **2017**.
- Lama, D., **Moktan, S.** & Das, A.P. Diversity and distribution of *Acer* Linnaeus (Sapindaceae) in Darjiling and Sikkim Himalayas. *Pleione*, 9(1): 61 – 73, **2015**.
- Gupta, S.K., Sharma, A. & **Moktan, S.** A review on some species of *Marchantia* with reference to distribution, characterization & importance. *Wor. Jour. Phar. Pharmaceu. Sci.*, 4(4): 1576 – 1588, **2015**.
- Chhetri, P., Gudade, B.A., **Moktan, S.**, Bhattarai N.K. & Gupta, U. Study of diversity and species richness of weed flora in large cardamom (*Amomum subulatum* Roxb.) plantations at Sikkim. *Eco. Env. Conserv.* 20(1): 191 – 194, **2014**.
- Chettri, D., **Moktan, S.** & Das, A.P. Ethnobotanical studies on the Tea Garden workers of Darjiling Hills. *Pleione*, 8(1): 124 – 132, **2014**.
- **Moktan, S.** & Das, A.P. Plant species Richness and Phytosociological attributes of the Vegetation in the cold temperate zone of Darjiling Himalaya, India. *Int. Res. Jour. Env. Sci.*, 3(10): 47 – 57, **2014**.
- **Moktan, S.** & Das, A.P. Diversity and composition of Tree stands in Tropical forests of the Darjiling part of Eastern Himalaya. *Int. Jour. Curr. Res.*, 6(12): 10446 – 10451, **2014**.
- **Moktan, S.**, Lama, P.C. & Pradhan, B. Role of Effective Microorganism (EM) in improving seed longevity and viability under adverse storage conditions. *Int. Jour. Adv. Life Sci.*, 7(1):119 – 127, **2014**.
- **Moktan, S.** & Das, A.P. Diversity and distribution of invasive alien plants along the altitudinal gradient in Darjiling Himalaya, India. *Pleione*, 7(2): 305 – 313, **2013**.
- **Moktan, S.** & Das, A.P. Phytosociological characterization of forested vegetation in the sub-tropical region of Darjiling Himalaya, India. *Pleione*, 6(2): 373 – 380, **2013**.
- **Moktan, S.** & Das, A.P. Ethnomedicinal approach for Diarrhoeal treatment in Darjiling district (WB), India. *Ethnobotany*, 25: 160 – 163, **2013**.
- **Moktan, S.**, Nirola, S. & Das, A.P. *Oplismenus undulatifolius* (Arduino) P. Beauvois [Poaceae]: a new record for West Bengal, India. *Pleione*, 6(1): 247 – 249, **2012**.
- Das, A.P., Ghosh, C., Sarker, A., Biswas, R., Biswas, K., Choudhury, D., Lama, A., **Moktan, S.** & Choudhury, A. Preliminary report on the Medicinal Plants from three MPCAs in Terai and Duars of West Bengal, India. *Pleione*, 4(1): 90 – 101, **2010**.
- Devadas, R., Medhi, R.P., **Moktan, S.** & Khatiwara, P. Salient features of DUS Testing on Orchids. *NRCO/DUS Bulletin*, National Research Centre for Orchids (ICAR), Pakyong, Sikkim. **2007**.

Book chapters:

- Tamang, S. & **Moktan, S.** 2024. Perspective in Plant Taxonomy through conventional to contemporary biotechnological approach. In Sankari M, Pal, A. Dagawal, M. et al. (Eds.) *Futuristic Trends in Biotechnology*, Iterative International Publishers (IIP), Selfpage Developers Pvt. Ltd, Karnataka, India. Pp. 198-219, **2024**.
- Mondal, S., Rai, P., Das, P. & **Moktan, S.** Spore morphology and ornamentation of fern and fern-allies from West Bengal, India. In Srivastava S.K. & Srivastava G.P. (Eds.) *Ferns: Growth, Diversity and Ecological Importance*, Nova

Science Publishers, New York. Pp. 165-186, **2023**.

- Lama, D., **Moktan, S.** & Das A.P. The genus *Acer* L. (Sapindaceae) in Darjiling-Sikkim Himalayas. In A.P. Das and S. Bera (Eds.) *Plant diversity in Himalayan Hotspot region*, Bishen Singh Mahendra Pal Singh, Dehra Dun, India. Pp- 345 – 366. **2018**.
- Shankar, Y., **Moktan, S.** & Das, A.P. Ethnomedicinal approach by the Lepcha tribe of Kalimpong area in Darjiling Hills. In Mondal, N. & Sen, J. (Eds.), *Nutrition and Health among Tribal Populations of India: A bio-cultural Approach*, B.R. Publishing Corporation, Delhi. Pp. 121 – 134. **2015**.
- Lama, D., **Moktan, S.** & Das, A.P. Diversity of pollen morphological characters in *Acer* Linnaeus (Sapindaceae) from Darjiling and Sikkim Himalayas. In Tripathi, S.K. (Ed.), *Biodiversity in Indian Tropical Ecosystem, Today & Tomorrow Printers & Publishers, New Delhi*. Pp. 153 – 165. **2015**.
- Das, A.P. & **Moktan S.** Diversity and species richness of ground cover vegetation in temperate belt of Darjiling Hills. In Debnath, S., Bagchi, B. & Misra, S. (Eds.), *Modern Trends in Social and Basic Sciences*, Readers Service, Kolkata. Pp. 174 – 182. **2015**.
- **Moktan, S.** & Das, A.P. Dominance-diversity and Species richness of herb species in the foothill forests of Kurseong. In Ghosh, C. & Das, A.P. (Eds.), *Recent Studies in Biodiversity and Traditional Knowledge in India*, Gour Mahavidyalaya, Malda. Pp. 145 – 151. **2011**.

FELLOW/MEMBER OF LEARNED SOCIETIES

- ✓ Fellow of the Linnean Society of London
- ✓ Fellow of East Himalayan Society for Spermatophyte Taxonomy (EHSST)
- ✓ Member of IUCN-Species Survival Commission
- ✓ Member of the Indian Botanical Society
- ✓ Member of the Indian Ecological Society (IES)
- ✓ Life member of Botanical Society of Bengal
- ✓ Life member of Probir Chatterjee Research Foundation (PCRF)