# **CURRICULUM VITAE**

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Date of birth:	19-August-1986
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**CAREER OBJECTIVE:** I am a Post graduate who combined studies with working and other commitments. In achieving this, I have shown myself to be self-motivated, committed and determined in achieving my goals, come what may. I have also demonstrated negotiating and organizing skills, a firm sense of responsibility and my capacity to work hard under any type of condition.

# HIGHLIGHTS

- ✓ Experience working with RDS high volume sampler for monitoring SO2, NOx, RSPM and SPM.
- ✓ Experience in plant eco physiological research, particular studying the physiological responses of bryophytes to different elevated heavy metals and environmental changes.
- ✓ Expert at chlorophyll fluorescence, spectrophotometry.
- ✓ Capable of designing and developing research projects.

# **PROFESSIONAL QUALIFICATION**

#### Bachelor Degree: B.Sc. (Zoology,Botany,Chemistry)

Year of Degree Completion:June, 2007Percentage secured:62.07% (First Div.)G.P.G. College Pithoragarh,Kumaon University, Nainital.

#### Master Degree: M.Sc. Botany

Year of Degree Completion: August, 2009OGPA: 7.25/10.00College of Basic Sciences &HumanitiesG. B. Pant University of Agriculture & Technology, Pantnagar- 263145

#### **M.Sc. Seminar Topic:**

> Bryophytes their use and environmental aspects.

# M.Sc. THESIS TITLE

# SCREENING OF SOME SELECTED BRYOPHYTES FOR THEIR ANTIMICROBIAL ACTIVITIES.

I worked on 4 different plant pathogenic Fungi i.e. *Sclerotium rolfsii, Rhizoctonia solanii, Tiletia indica* and *Fuserim oxysporum* and five important bacterial pathogens (four are animal pathogens and one plant pathogen) i.e. *Pasturella multosida, E. coli, Salmonella enterica, Malisococcus plutonius* and *Xanthomonas oryzae*.

I also did their bioassay along with their MIC (Minimum Inhibitory Concentration), MBC (Minimum Bactericidal Concentration) and MFC (Minimum Fungicidal Concentration) along with the TLC of some bryophytes.

#### **EXPERIENCE:**

- > Handling of RDS high volume sampler for monitoring SO<sub>2</sub>, NOx, RSPM and SPM.
- > Handling of Atomic Absorption Spectrophotometer
- > Handling of UV IR Spectrophotometer
- > Handling of Plant Efficiency Analyzer (PEA)
- > Handling of TPS Gas exchange analyzer.
- ➢ Handling of fungal and bacterial cultures.
- Isolation of fungal pathogens
- TLC (Thin Layer Chromatography)

# **PROJECT PARTICIPATION:**

Worked as a Junior Research Fellow under the project entitled as **"Bryophytes-tool for National Multi-Elemental atmospheric survey of 100 years"** funded by Ministry of Environment and Forest, Government of India.

In this project we had done biomonitoring of the Uttarakhand and Himachal Pradesh using bryophytes as bioindicator. We collected moss from Uttarakhand (Mukteshwar, Pithoragarh, Mussorie, Dhanaulty etc.) and Himachal Pradesh (Palampur, Dharamshala, Baijnath etc.).

In biomonitoring we analyze heavy metals present in ambient air by using the Atomic Absorption Spectrophotometer along with the response of different metal treatment in moss using photosynthetic efficiency analyzer.

#### FIELD EXPERIENCE:

Uttarakhand : 9 field tours Himachal Pradesh : 5 long field tours **COMPUTER SKILLS** 

- ▶ MS DOS, Fortran-77 & internet surfing.
- ➢ Good command on MS-office package.
- ➢ FORTRAN

# WORKSHOP:

Actively participated to organize an international workshop on "Monitoring of metals and gases in plant with special reference to bryophyte physiology and climate change" by Department of Botany Bareilly College, Bareilly19th - 20th December 2012.

# **PUBLICATIONS:**

Singh S., Srivastava K., **Gahtori D.** and Saxena D.K. 2017. Bryomonitoring of Atmospheric Elements in *Rhodobryum giganteum* (Schwaegr.) Par., Growing in Uttarakhand Region of Indian Himalayas. *Aerosol and Air Quality Research* 17(3): 810-820. DOI10.4209/aaqr.2015.06.0429

Saxena D.K., Janajreh I. and and **Gahtori D.** 2014a. Monitoring of metal dispersion in Kumaon hills (India) through active monitoring using moss. *International Journal of Sustainable Water and Environmental Systems* 6(1): 1-15.

Saxena D. K., Gahtori D. and Zander, R.H. (2013). A moss *Anoectangium thomsonii* Mitt. (pottiaceae, bryophyta) from Uttarakhand, India. *Geophytology*, 43(2): 111-116.

Saxena, D.K., Hooda, P., Singh, S., Srivastava, K., Kalaji H.M. and **Gahtori, D. (2013).** An assessment of atmospheric metal deposition in Garhwal hills (India) by moss *Rhodobryum giganteum* (Schwaegr.) Par. *Geophytology*, 43(1): 17-28.

**Gahtori D.**, Saxena D. K., Kumari S. and Atiq M. Z. (2012). Use of Chlorophyll fluorescence measurement technique to validate metal tolerance moss atmospheric elemental monitoring. Proceeding of International conference on Monitoring of metals and gases in plant with special reference to bryophyte physiology and climate change **pp. 66. 17th-18th December 2012.** 

Kumari S., Saxena, D. K., Joshi, M. and **Gahtori D. (2012).** Seasonal trend for RSPM, SPM, NOx and Sox for the period of 2010-1011. Proceeding of International conference on Monitoring of metals and gases in plant with special reference to bryophyte physiology and climate change pp. 67. 17th-18th December 2012.

Saxena, D.K., Kalaji H.M. and **Gahtori, D.** (2012). Chlorophyll fluorescence measurements for validating metal tolerance moss to be used for atmospheric elemental monitoring. *Bryological Times*, 136: 8, 21-23.

Saxena, D.K., Kalaji H.M. and **Gahtori, D. (2011).** Large scale atmosphere elemental monitoring by mosses in India: A conceptual approach. In 24th Task Force Meeting of ICP vegetation 28-29. 31 January-2 February 2011, Rapperswil, Switzerland.

**Gahtori, D.,** Singh, S., Saxena, D. K. and Khanna, D. R. (**2011**). The Nature and Distribution of Bryoflora in Kumaon Hills of Uttarakhand. Abstract published in —National seminar on environmental management and biodiversity conservation organised by Omkarnanda Institute of Management and Technology Rishikesh, Uttarakhand, India.

**Gahtori Dheeraj** and Chaturvedi Preeti (2011). Antifungal and antibacterial potential of methanol and chloroform extracts of *Marchantia polymorpha* L. *Archives Of Phytopathology and Plant Protection*, 44: 8, 726 – 731

**Gahtori Dheeraj,** Chaturvedi, Preeti and Singh Shivom (**2011**). Using bryophytes as a tool to cure European Foul Brood disease of honey bee: An eco-friendly novel approach. *Current Science*, VOL. 101: 2, 25.

**Gahtori, D. (2009).** *In Vitro* evaluation of antimicrobial activities of different bryophytes Abstract published in proceeding of conference organised by Uttarakhand State council for Science and Technology.

#### SCIENTIFIC PRESENTATIONS

Saxena D. K. and **Gahtori D.** 2015d. Monitoring Of Heavy Metals In Ambient Air From Garhwal Hills (INDIA) Using Moss *Hypnum cupressiforme* Hedw. 28th Task Force Meeting of the UNECE ICP Vegetation Rome, Italy, Convention on Long-range Trans boundary Air Pollution, Working Group on Effects International Cooperative Programme on Effects of Air Pollution on Natural Vegetation, 44-45pp.: 1-3 Feb. 2015.

Kumari S., \*Gahtori D., Mishra K. and Atiq M. Z. (2013). Loss of Biodiversity in present scenario. Proceeding of National seminar on "Environmental issues and challenges in the 21st century" (EICC-2013). Organized by Department of Environment Sciences, Bareilly College, Bareilly from 3rd-5th February 2013, a poster presentation.

➢ Presentation on Large scale atmosphere elemental monitoring by mosses in India: A conceptual approach in 24th Task Force Meeting of ICP vegetation 31 January-2 February 2011, Rapperswil, Switzerland.

➢ Gahtori *et al.* 2011. —National seminar on environmental management and biodiversity conservation organised by Omkarnanda Institute of Management and Technology Rishikesh, Uttarakhand, India.

➤ Dheeraj Gahtori (2009): —In Vitro evaluation of antimicrobial activities of different bryophytes Uttarakhand state council for science and research. Organized by Uttarakhand State council for Science and Technology. An oral presentation.

➢ Oral presentation on national seminar organised by Department of Plant science, MJP Rohilkhand University, Bareilly UP India on —Management of environment pollution for sustainable energy production.

#### **REFERENCES:**

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