



ENLIGHTENMENT TO PERFECTION

UNIVERSITY OF NORTH BENGAL

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Raja Ramohunpur, Dist- Darjeeling, West Bengal, Pin-734013, India.



Department of Botany

Print



Dr. Piyush Mathur

M.Sc., Ph.D.,

Assistant Professor

Life Member- Delhi University Botanical Society (DUBS, University of Delhi) Society of Rapeseed Mustard Research (SRMR, Bharatpur)

Contact Addresses:

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Subject Specialization: Microbiology, Mycology and Plant Pathology

Areas of Research Interest: Microbial diversity, Plant-pathogen interactions

No. of Ph.D. students: (a) Supervised: Nil (b) Ongoing: Nil

No. of M.Phil. students: (a) Supervised: Nil (b) Ongoing: Nil

No. of Publications: (a) Journal(s): 4 (b) Book(s): Nil (c) Book chapter(s): 02

Achievement & Awards:

- UGC- Junior Research Fellowship and NET - Year 2010.
- Best Poster award in an "International Conference on Biotechnology: A Rendezvous with Basic Sciences for Global Prosperity" held at A. P. Shinde Auditorium, NASC Complex, PUSA- Year 2012.
- CSIR- Foreign Travel Grant for attending and participating 19th Australasian Plant Pathology Conference held at University of Auckland, Auckland, New Zealand from 25-29th November, 2013.
- Foreign travel grant by Research Council, University of Delhi for attending and participating 14th International Rapeseed Congress held at The Convention Centre, 35-22nd Street East, TCU Place Saskatoon, Saskatchewan Canada from 5-9th July, 2015
- Best Oral Presentation Award in a "National Conference on Plant Science Research: Looking beyond 21st Century for Environmental and Agricultural Revolution" held at Department of Botany, University of Delhi, Delhi- Year-2016.
- Foreign travel grant by International Travel Support Scheme, SERB, DST, GOI for attending and participating in 3rd Agriculture and Climate Change Conference held at Budapest, Hungary from 24-26th March 2019.

Professional Experiences:

UG Teaching –

- Worked as an Assistant Professor on ad-hoc basis in Department of Botany, Zakir Husain Delhi College, University of Delhi, New Delhi (July, 2017- September, 2018).
- Worked as an Assistant Professor on ad-hoc basis in Department of Botany, SGTB Khalsa College, University of Delhi, Delhi (January, 2016- May, 2017).
- Worked as a Guest Assistant Professor in Department of Botany, Dyal Singh College, University of Delhi, Delhi (August, 2015-November, 2015)

PG Teaching –

- Assistant Professor Department of Botany, University of North Bengal (September, 2018- till date)

Administrative Experiences:

- Member of Organising Committee in Two-day Practical Workshop “Hands on Training on Molecular Biology Techniques” in Department of Botany, SGTB Khalsa College, University of Delhi held from 4-6th October, 2016.
- Member of Organising Committee in Two day Workshop on “Biofertilizers” in Department of Botany, SGTB Khalsa College, University of Delhi held from 2-3rd February, 2017

List of Publications:**Books Chapters in Edited books:**

- Rupam Kapoor, Heikham Evelin, **Piyush Mathur**, Bhoopander Giri 2013 Arbuscular Mycorrhiza: Approaches for Abiotic Stress Tolerance in Crop Plants for Sustainable Agriculture. In: *Plant Acclimation to Environmental Stress*, (eds.) Tuteja N, Gil SS. pp 359-401. Springer USA. (eBook ISBN-978-1-4614-5001-6).
- Niharika Bharti, **Piyush Mathur** 2018. Impact of CO₂ on disease severity of fungal plant pathogens and their management by modern day techniques. In: *Introduction to challenges and strategies to improve Crop productivity in changing environment*, (eds.) Ansari MH, Kumar S, Kaula, BC, Wattal RK. pp 17-34. Enriched Publications Pvt. Ltd. India (ISBN: 978-81-934634-9-9)

Publications:

- **Piyush Mathur**, Esha Sharma, Shiv Dhar Singh, Ashok Kumar Bhatnagar, Ved Pal Singh, Rupam Kapoor 2013. *Effect of elevated CO₂ on infection of three foliar diseases in oilseed Brassica juncea*. Journal of Plant Pathology 95 (1): 133-142. (Online ISSN: 2239-7264) Publisher name: Springer
- **Piyush Mathur**, Ved Pal Singh, Rupam Kapoor 2018. *Interactive effects of CO₂ concentrations and Alternaria brassicae (Berk.) Sacc. infection on defense signalling in Brassica juncea (L.) Czern. & Coss*. European Journal of Plant Pathology. 151 (2), 413–425 (Online ISSN :01573-8469) Publisher name: Springer (Online ISSN :01573-8469) Publisher name: Springer Netherlands. (I.F.-1.478)
- Esha Sharma, Pamil Tayal, Garima Anand, **Piyush Mathur**, Rupam Kapoor 2018. *Functional analysis of diacylglycerol O-acyltransferase 2 gene to decipher its role in virulence of Botrytis cinerea*. Current Genetics 64(2):443-457. (online ISSN: 1432-0983) Publisher name: Springer, Berlin Heidelberg. (I.F.- 3.764)
- Anjana Sagar, Inderdeep Kaur, **Piyush Mathur**, Anirudh Mukherjee Sagar Dhama, Vibhav Singh and Jasmeen Kaur 2019. *A New Concept in Organic Farming: Efficacy of Brassinosteroids as Foliar Spray to Ameliorate Growth of Marigold Plants*. Environment & We: An International Journal of Science & Technology, Publisher name: Society for Environment and Development, (India) (Accepted) (Online ISSN-0975-7120)

Trainings/ Workshops/ Seminars

- Bioinformatics Workshop on Genomics at Supercomputing Facility for Bioinformatics & Computational Biology, IIT Delhi from August 25-26, 2010.
- National Workshop on “Reproductive Biology of Flowering Plants for their Conservation and Improvement” organized by Delhi University Botanical Society held at Department of Botany, University of Delhi from April 27-29, 2012.
- Hands on Training cum Capacity Building Workshop for Photosynthesis Assessment Methods and Data Interpretation held at Department of Botany, University of Delhi from February 9-28, 2015.
- National Seminar on Identifying and Avoiding Publishing in Predatory Journals: A Lesson for Researchers held at Department of Botany, University of Delhi on March 18, 2017.
- Workshop on “Gardening: Cultivate learning and living” held at Department of Botany, SGTB Khalsa College, University of Delhi on September, 20, 2017.
- Workshop on “Recent Trends in Bioinformatics” held at Department of Botany, Deen Dayal Upadhyaya College, University of Delhi on January 31, 2018.

Participation in Conferences**National**

- Piyush Mathur, Ved Pal Singh and Rupam Kapoor “Altered susceptibility of *Brassica juncea* towards its foliar pathogens under elevated CO₂” in National Conference on Plant Science Research: Looking beyond 21st Century for Environmental and Agricultural Revolution held at Department of Botany, University of Delhi, Delhi from 5-7th February, 2016, where it was awarded with “**Best Oral Presentation Award**”

- Piyush Mathur, Ved Pal Singh and Rupam Kapoor “Elevated CO₂ Influences Biochemical Composition and Storage Stability of Seeds” in National Symposium on "Mycological Research - Emerging Trends, Applications and Prospects" and 41st Annual Meeting of Mycological Society of India held at Department of Botany, Punjabi University, Patiala from 23-24th February, 2015.

International

- Piyush Mathur, Shiv Dhar Singh and Rupam Kapoor “Elevated CO₂ modulates natural disease incidence in *Brassica juncea* by mediating changes in host defense mechanism” in 3rd Global conference on Plant Pathology for Food Security at Rajasthan College of Agriculture, Maharana Pratap University of Agriculture & Technology, Udaipur from January 10-13th, 2012.
- Piyush Mathur, Shiv Dhar Singh, Ved Pal Singh and Rupam Kapoor “Influence of Elevated CO₂ on Natural Incidence and Severity of Three Diseases in *Brassica juncea*” in International Conference on Biotechnology: A Rendezvous with Basic Sciences for Global Prosperity held at NASC Complex, PUSA, New Delhi from December, 26-27th 2012 where it was awarded with “**Best Poster Award**”
- Piyush Mathur, Shiv Dhar Singh, Ved Pal Singh and Rupam Kapoor “Free-air CO₂ enrichment (FACE) affects the Susceptibility of *Brassica juncea* to Foliar Pathogens” in 19th Australasian Plant Pathology Conference held at **University of Auckland, Auckland, New Zealand** from 25-29th November, 2013.
- Piyush Mathur, Rupam Kapoor “Incidence and severity of foliar diseases in *Brassica juncea* L. (Czern. & Coss.) under elevated CO₂ is affected by plant defense chemistry in 14th International Rapeseed Congress held at **The Convention Centre, 35-22nd Street East, TCU Place Saskatoon, Saskatchewan Canada** from 5-9th July, 2015.
- Piyush Mathur and Rupam Kapoor Elevated CO₂ Modulates the Transcript Expression of Genes Involved in Defense Signalling via Changes in Phytohormone Levels in *Brassica juncea*-*Alternaria brassicae* Pathosystem in International Seminar on Current Avenues in Microbial & Plant Sciences (CAMPS-2019), University of Gour Banga, Malda, West Bengal, India from 23-25th February, 2019.
- Piyush Mathur and Rupam Kapoor Effect of elevated CO₂ and pathogen infection on phytohormone levels and transcript expression of genes involved in defense signalling in *Brassica juncea* in **3rd Agriculture and Climate Change Conference held at Budapest, Hungary** from 24-26th March 2019