

# ***Dr. Rakhee Das Biswas***

## ***Associate Professor***

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Student-focused motivational educator with over 15 years of teaching experience and a strong record of research and publication in plant health and fungal diseases, bringing a wealth of knowledge, expertise and passion to teaching with real-world applications. Experience serving on different academic and departmental committees along with participating in different extracurricular activities.



### **EDUCATION**

- **PhD:** Botany, 2007  
University of North Bengal, Siliguri, West Bengal
- **Master of Science:** Botany, 1998  
University of North Bengal, Siliguri, West Bengal
- **Bachelor of Science:** Botany, 1996  
University of North Bengal, Siliguri, West Bengal

### **Teaching experience:**

Presently working as Associate Professor, Head of the Department of Botany (since 03-10-2008)

### **Research experience:**

1. DST – JRF and SRF at University of North Bengal, Siliguri, West Bengal, 2001 – 2005

### **Administrative experience:**

1. Member, Academic council, Educational year 2010 – 2011
2. Convener, Library committee, Educational year 2011
3. Member, Election committee, Educational year 2011 – 2012
4. Member, Admission committee Educational year 2010 – 2011 & 2013 – 2015
5. Member, NAAC committee, Educational year 2013 – 2015.
6. Teacher representative of Governing body, Educational year 2012.
7. **Teacher in Charge** (01/12/2019 – 31/05/2020)
8. **Secretary Teacher's Council** (01/06/2023 - 31/05/24)

### **Awards / Fellowship / Recognition, etc. :**

1. Received the **Research Award** from the International Conference on O-CHA (Tea) Culture and Science (ICOS- 2004) for the paper entitled “*Antimicrobial proteins of tea*” presented during ICOS 2004 held at Shizuoka, Japan during November 4-6, 2004

2. Award received, **Prof. M.J. Narasimhan Medal for the best paper published** in Indian Phytopathology Vol. 58(2005): 298-304 entitled “*Defense enzymes triggered by Exobasidium vexans massei induced resistance in tea plants.*”
3. Received **P. P. Singhal Memorial Pesticides India Industries Award** from Indian Society of Mycology and Plant Pathology (ISMPP) for the research paper entitled “*Protection of tea plants against pest and pathogen through combined application of pesticide and plant growth promoting rhizobacterium*” presented at 32<sup>nd</sup> Annual Conference of ISMPP and National Symposium on “Innovation in Plant Pathology Research and Human Resource Development” organized by Junagadh Agricultural University, Junagadh (Gujrat) November 24-26, 2010.

### **Participation in workshop / Summer & Winter School / Orientation and Refresher**

#### **Programmes:**

1. Participated, UGC sponsored “Capacity Building of Women Managers in Higher Education.” Organized by Centre of Women’s Studies, North Bengal University, Darjeeling from 13<sup>th</sup> to 17<sup>th</sup> February, 2009.
2. Participate in the UGC sponsored 1<sup>st</sup> **Refresher Course in Life Science**, from 08-09-2011 to 28-09-2011 at Academic Staff College, North Bengal University, Darjeeling.
3. Participated in the UGC sponsored **14<sup>th</sup> Orientation Programme** from April, 25, 2013 to May 22, 2013 at Academic Staff College, North Bengal University, Darjeeling.
4. Participated in **National Workshop** on “Exploitation of Plant and Microbial Resources of North Bengal” organized by Department of Botany, University of North Bengal held on December, 14-16, 2015.
5. Participated in the UGC sponsored 1<sup>st</sup> **Refresher Course in Biological Science**, from 26/08/2016 to 15/09/2016 at Human Resource Development Centre, North Bengal University, Darjeeling.
6. Participated in the Short Term Course on **Population, Environment & Development** from 25/05/2016 to 31/05/2016 at Human Resource Development Centre, North Bengal University, Darjeeling.
7. Participated in the workshop on Implementation of Undergraduate Syllabus (Theory & Practical) from 13/11/2017 to 19/11/2017 organized by Department of Botany, University of Gaur Banga, Malda.
8. Participate in the **Jawaharlal Nehru University UGC sponsored Refresher Course (Online)**, in Environmental Studies (Interdisciplinary) from 07-09-2020 to 19-09-2020.

#### **Participation in national / international conference / symposia:**

1. Participated in UGC Sponsored **State Level Conference** on “Re(-) membering the Revolt of 1857 : Nationalist in Postcolonial India, organized by Department of English, Raiganj Surendranath Mahavidyalaya on 27<sup>th</sup> – 28<sup>th</sup> November, 2008.

2. Paper presented in Silver Jubilee **National Symposium** on “Sustainable Utilization of Plant and Microbial Resources” organized by Department of Botany, University of North Bengal, on February 28 – March 1, 2009
3. Participated in UGC Sponsored **National Symposium** on “Advances in Abiotic and Biotic Stress Management of Plants” organized by Department of Botany, University of North Bengal, on September 23-24, 2011
4. Participated in UGC Sponsored **State Level Conference** on “Green Chemistry for Environmentally Benign Chemical Synthesis” organized by Department of Chemistry, Raiganj Surendranath Mahavidyalaya on February 14-15, 2012
5. Convener in UGC Sponsored **National Seminar** on “Biodiversity and Sustainability vis-à-vis Economic Development in the Northern Parts of West Bengal” organized by Department of Botany, Raiganj Surendranath Mahavidyalaya, on 26<sup>th</sup> & 27<sup>th</sup> August, 2012
6. Organized UGC Sponsored **National Workshop** on “Application of Statistical Methods: An Interdisciplinary Approach” on 5-11 September, 2012 at Raiganj Surendranath Mahavidyalaya.
7. Participated in UGC Sponsored **National Seminar** on “Cultural Plurality and Nation making in India, Issues and Problems in Retrospect (focus on Eastern and North-Eastern India)” on 7 & 8 November, 2014 organized by Department of History, Shree Agrasen Mahavidyalaya, Dalkhola.
8. Participated in **National Seminar** “Different Horizons of Lokasangskriti” organized by Raiganj Surendranath Mahavidyalaya & Folklore Congress Association of India on 2<sup>nd</sup> - 3<sup>rd</sup> May, 2015
9. Paper presented in **National Seminar** on Defining Modern Biology: Plants & Microbes organized by Department of Botany, University of Gour Banga on 10<sup>th</sup> March 2016.
10. Paper presented in **National Seminar** on Man & Microbes organized by Department of Microbiology, Raiganj University on 28<sup>th</sup> March to 29<sup>th</sup> March, 2016.
11. Paper presented in UGC Sponsored **National Seminar** on History of ‘North Bengal’: A New Perspective organized by Dept. of History, Raiganj Surendranath Mahavidyalaya in collaboration with Sri Agrasen Mahavidyalaya on 5<sup>th</sup> April to 6<sup>th</sup> April 2017.
12. Participated in one day **National Seminar** on Recent Innovation in Science and Technology for a Sustainable Environment, Dept. of Botany, Gangarampur College on 3<sup>rd</sup> April 2019
13. Participated and Paper presented in **International Seminar** on Current Avenues in Microbial and Plant Science CAMPS 2019 Organized by Dept. of Botany, University of Gour Banga on 23-24-25 February, 2019.
14. Paper presented in **International Symposium** on Nature, Microbes & Society, Organized by Indian Mycological Society, in collaboration with Dept. of Botany, University of Kolkata on 6<sup>th</sup> February to 8<sup>th</sup> February, 2020

- 15 Paper presented as ‘**Special Invited Lecture**’ in the State Level Science Seminar on Advances in Life Science Research for Sustainable Development, on September 13 and 14, 2022 at Balurghat Mahila Mahavidyalaya, Balurghat, Dakshin Dinajpur.

#### **Membership in Scientific Societies:**

1. **Life member** of Indian Phytopathological Society.
2. Fellow of International Society for Conservation of Natural Resources (**F.N.R.S., 2007**)
3. **Life member** of Indian Mycological Society (**25<sup>th</sup> March, 2020**)

#### **Papers in peer-reviewed Journals**

1. **Das Biswas R.** and Chakraborty, B. N. (2020). Immunodetection of *Alternaria alternata* and evaluation of antifungal compounds in tea leaf tissues following challenge inoculation with pathogen. *J Mycol Pl Pathol*, 50(3): 236-
2. **Das Biswas R.**, De. U and Chakraborty, B. N.(2020). Root colonization with arbuscular mycorrhizal fungi and dark septate endophytes in tea plants. *J. Mycopathol. Res.* 58(1&2): 51-55 *ISSN 0971-3719*.
3. **Das Biswas R.** and Chakraborty, B. N. (2020). Evaluation of leaf extracts of *Azadirachta indica*, *Catharanthus roseus* and *Diplazium esculentum* on tea plants for induction of resistance against *Alternaria alternata*. *J.Botan.Soc.Bengal* 74(1) 57- 67 *ISSN 0971-2976*
4. De, U. K., **Das Biswas R.** and Chakraborty, B. N. (2013). Association of AF fungi in the rhizosphere of *Thuja orientalis* (L) *NBU Journal of Plant Science* 7: 1-8
5. Chakraborty, B. N., Sharma, M. and **Das Biswas R.** and Ghose A.N. (2009). Pathogenesis related proteins of tea triggered by *Exobasidium vexans* *NBU Journal of Plant Science* 3: 59-66
6. Chakraborty, B. N. and **Das Biswas R.** (2008) Serological detection of *Corticium invisum* in tea leaf tissue. *Journal of Mycology and Plant Pathology* 38(3): 458-465
7. Chakraborty, B. N., **Das Biswas R.** and Sharma, M.(2007). Induction of resistance in tea plants against *Alternaria alternate* by foliar application of leaf extract. *Journal of Mycology and Plant Pathology* 37(1): 60-64
8. Chakraborty, B. N., Biswas, B., **Das Biswas R.** and Sharma, M (2007). Detection and cellular location of cross reactive antigens in root tissues of *Leucaena leucocephala* shared by *Fusarium oxysporum*. *Environment Biology and Conservation* 12: 45-49
9. Chakraborty, B. N., **Das Biswas R.** and Sharma, M.(2006). *Alternaria alternate* – a new foliar fungal pathogen of Tea in North Bengal, India. *Plant Pathology* 55: 303
10. Chakraborty, B. N., Sharma, M. and **Das Biswas R.** (2006) A new record on leaf blight of tea caused by *Curvularia pallescens* *Journal of Mycology and Plant Pathology* 36(1): 42-43
11. Chakraborty, B. N., Sharma, M. and **Das Biswas R.** (2005). Association of defense enzymes with resistance in tea plants triggered by *Exobasidium vexans* Massee. *Indian Phytopathology*, 58(3): 298-304

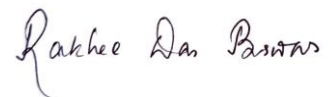
12. Chakraborty, B. N., Sharma, M., **Das Biswas R** and Sharma, M.(2005). *Induction of resistance in tea plants against Curvularia pallescens by foliar application of leaf extracts. Journal of Hill Research*, 18(2): 69-78.
13. Chakraborty, B. N., **Das Biswas R**. and Sharma, M (2004). *Mulicomponent coordinated defense strategies in tea plants against Helopeltis theivora and Exobasidium vexans. Journal of Plantation Crop* 32: 289-297.

### Chapters in Books

1. Chakraborty, B. N., Sharma, M. and **Das Biswas R** (2005). Defense responses in tea plants triggered by *Exobasidium vexans*. In *Stress Biology* (Eds. U. Chakraborty and B. N. Chakraborty) Narosa Publishing House, New Delhi. p 226-232
2. Chakraborty, U., Chakraborty, N., **Das Biswas R** and Chakraborty B. N. (2005). Changes in oxidative stress and defense related enzymes of tea leaves following attack by *Helopeltis theivora*. In *Stress Biology* (Eds. U. Chakraborty and B. N. Chakraborty) Narosa Publishing House, New Delhi. p 233-237
3. Chakraborty, B. N., Sharma, M. **Das Biswas R** and Ghose, A. (2005). Pathogenesis-related proteins of tea: Their induction and immunocytochemical localization. In: *Emerging trends in Plant-microbe interactions* (eds. S.S.Gnanamnickam, R. Balasubramanian and N. Anand) University of Madras, Chennai, p 194-202

### Books edited:

1. Edited the book “Biodiversity and Sustainability Opportunity & Challenges” ISBN no 978-93-5254-104-1 Publisher Binary Banian. 2016
2. Associate Editors, “Biodiversity, Conservation and Sustainable Development” Vol-1 Issues and Approaches, ISBN: 978-81-86772-75-1, Edited by New Academic Publishers, 1<sup>st</sup> edition 2015.



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