

Curriculum vitae

Dr. Leena Borah

Assistant Professor

Department of Environmental Biology and Wildlife Sciences

Cotton College State University, Guwahati, Assam



Personal details:

Date of birth	16.02.1986
Gender	Female
Nationality	Indian
Present Address	House No. 1 Housing Colony, Narengi Guwahati – 781026, Assam
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Educational Qualifications:

- Passed B. Sc. in Zoology (Major) from Cotton College, Guwahati, in the year 2007
- Passed M. Sc. in Environmental Science from Tezpur University in the year 2009
- Completed Ph.D. from the Department of Environmental Science, Tezpur University, in the year 2016

(Title of thesis: Mitigation of greenhouse gas emission from rice-wheat ecosystem with reference to management of plant-mediated transport)

Additional qualifications and achievements

- Qualified UGC NET-LS (June, 2012) in Environmental Sciences (Roll no. 70890031)
- Awarded Gold medal (1st class 1st) in M.Sc. Environmental Science
- DST INSPIRE Fellow (INSPIRE Code: IF10315) (Awarded by Department of Science and Technology, Govt. of India)

Research experience

Worked as Junior Research Fellow in Ministry of Environment and Forest, Govt. of India sponsored research project '*Impact of natural gas flaring on growth and yield development in rice*' from August 2009 to November 2010 in the Department of Environmental Science, Tezpur University, Tezpur, Assam.

Membership of academic societies

- Life member of the Society for Science of Climate Change and Sustainable Environment, New Delhi, India
- Life member of the Indian Society for Plant Physiology (ISPP)

List of publications

Journal articles:

1. D. C. Uprety, K. K. Baruah and **Leena Borah** (2011). Methane in rice agriculture: a review. *Journal of Scientific and Industrial Research* 70: 401-411
2. K. K. Baruah, Bobby Gogoi, **Leena Borah**, Manoshi Gogoi and Ratan Boruah (2012). Plant morphophysiological and anatomical factors associated with nitrous oxide flux from wheat (*Triticum aestivum*). *Journal of Plant Research*, Springer 125: 507-516
3. **Leena Borah** and K. K. Baruah (2015). Physiological and anatomical variations in three rice genotypes for transport and emission of methane. *Climate Change and Environmental sustainability* 3: 58-70
4. **Leena Borah** and K.K. Baruah (2016). Nitrous oxide emission and mitigation from wheat agriculture: association of physiological and anatomical characteristics of wheat genotypes. *Environmental Science and Pollution Research*, Springer 23: 709-721

Book chapters

1. K. K Baruah, **Leena Borah** and Anushree Baruah (2011). An overview of mitigation options for Greenhouse Gas Emissions from rice-based agroecosystems in the north-eastern India. In: Saxena KG, Liang L, Tanaka K

(eds.) Land management in marginal mountain regions: adaptation and vulnerability to global change. Bishen Singh Mahendra Pal Singh, Dehra Dun, pp. 245-263.

Full length paper in conference proceedings

1. K. K. Baruah, **Leena Borah** and Bobby Gogoi (2012). Climate change, greenhouse gas emissions and reduction: physiological processes involved. National Seminar of Plant Physiology, December 2012, ANGRAU, Hyderabad.

Abstracts in seminars and conferences:

1. **Borah L**, Baruah KK (2010) Agricultural land use in relation to climate change. International Geographical Union (IGU) commission seminar on land use, biodiversity and climate change, Cotton College, Guwahati.
2. Baruah KK, **Borah L**, Goswami M (2011) Green house gas emission from agriculture and climate change. 98th Indian Science Congress, Chennai.
3. Baruah KK, Gogoi B, **Borah L** (2011) Plant mediated nitrous oxide emission from wheat agriculture. 98th Indian Science Congress, Chennai.
4. Baruah KK, Gogoi B, **Borah L** (2012) Plant mediated greenhouse gas, nitrous oxide emission from wheat agriculture, 99th Indian Science Congress, Bhubaneswar.
5. Baruah KK, **Borah L**, Baruah A (2012) Management of plant genotypes and soil C-N ratio as biological mitigation option for nitrous oxide emission from wheat (*Triticum aestivum*) agriculture. The 12th International Global Atmospheric Chemistry (IGAC) science conference, Beijing, China.
6. **Borah L**, Baruah KK (2012) Cultivar differences in nitrous oxide emission from wheat and associated plant morphological and anatomical characteristics. National seminar of plant physiology, ANGRAU, Hyderabad.
7. Baruah KK, Gogoi B, Saikia P, **Borah L**, Bharali A (2013) Green house gas emission and carbon sequestration in rice fields: emission reduction strategies. 100th Indian Science Congress, Kolkata.

8. Baruah KK, **Borah L** (2013) Greenhouse gas emission from agricultural sources, mitigation with reference to climate change. National seminar on climate change and climate resilient agriculture. B.N. College of Agriculture, Biswanath Chariali, Assam.
9. KK Baruah, Gogoi N, **Borah L** (2013) Genetic diversity and structure in the rice species (*Oryza sativa gramineae*) associated with emission and mitigation of greenhouse gases. National seminar on recent trends in bioresource management and biodiversity conservation. Rajiv Gandhi University, Arunachal Pradesh.
10. Baruah KK, **Borah L** (2014) Agricultural greenhouse gas emission and mitigation with reference to diversity in plant species. National seminar on emerging bio-inputs in biotechnology for a green environment. Gauhati University, Assam.
11. **Borah L**, Baruah KK (2016) Hormonal impacts on physiological processes of rice in relation to methane emission. Jawaharlal Nehru University, New Delhi.