

## CURRICULUM VITAE



1. **RANJAN KUMAR BORA**

**S/O: LT. NIRMAL CHANDRA BORA**

**F-4, Royal Silver Heights, Kannwachal Road**

**Silpukhuri, Guwahati-781003**

**Email Id: [ranjankumarbora@yahoo.com](mailto:ranjankumarbora@yahoo.com); [ranjankrbora@gmail.com](mailto:ranjankrbora@gmail.com)**

**Mobile No. 8812969864/ 9435149928**

**Orcid id: <https://orcid.org/0009-0009-3313-5650>**

**Google scholar: <https://scholar.google.com/citations?user=YoAyIHAAAAAJ&hl=en>**

2. **Date of birth:** 19 November, 1968

3. **Gender:** Male

4. **Nationality:** Indian

5. **Academic Qualification:**

Name of Exam.	Board / Univ.	Year	Class/ Div.	PC of Marks	Institution	Subjects
HSLC	SEBA	1984	<b>First Divn.</b>	65.4%	DhekialHSSchool	As, Eng, GM, GSc, SS, S, G, WE.
HS	AHSEC	1987	Second Divn.	54.0%	DKD College	Ass, Eng, Chem, Phy, Bio, Math
B. Sc	Gauhati University	1990	<b>First Class.</b>	62.9%	AV College	Bot.(M), Chem, Zoo
M. Sc Botany	Gauhati University	1992 (Held in'93)	<b>1st Class 1<sup>st</sup> (Gold Medallist)</b>	73.7%	Univ. Classes	<b>Plant Physiology &amp; Biochemistry</b>
<b>Ph. D</b>	Gauhati University	<b>2003</b>			G. U.	<b>Plant Growth Regulators</b>
<b>Ph.D. Supervisor: Prof. Chandra Mohan Sarma, Department of Botany, Gauhati University (Presently retired)</b>						

6. **Other Qualification:**

(i) Diploma in Satriya Music (Vocal).

(ii) Certificate Course in Computer.

7. **Details of Employment:**

(i) **Lecturer in Botany**, Arya Vidyapeeth College, Guwahati (8 Aug. 1994 to 24 June 1995).

(ii) **Lecturer in Botany**, Pragjyotish College (25<sup>th</sup> July 1995 to 8<sup>th</sup> Oct. 2001).

(iii) **Senior Lecturer in Botany**, Pragjyotish College (8<sup>th</sup> Oct. 2001 to 8<sup>th</sup> Oct. 2006).

(iv) **Selection Grade Lecturer**, Pragjyotish College (8<sup>th</sup>Oct. 2006 to 8th Oct. 2009).

(v) **Associate Professor in Botany**, Pragjyotish College (Since 8th Oct. 2009).

8. **Awards/Fellowship:**

(i) Recipient of **Gold Medal Award** of Gauhati University for securing **First Class First Position** in M. Sc. (Botany), Batch 1992 (Held in 1993).

(ii) Recipient of "**Jagjivan Das Gupta**" **award 2003 of the International Society for Conservation of Natural Resources for best student speaker** in the National Seminar on 'Impact of Increasing Human Population on Natural Resources' held on 16 - 18 Oct. 2003 at BHU, Varanasi.

(iii) Awarded with Teachers' Fellowship from UGC for the period 1<sup>st</sup> Mar. 2000 to 28<sup>th</sup> Feb. 2002 for pursuing research and higher education.

(iv) Honored with Fellow of Natural Resources and Conservation (FNRS) by International Society for Conservation of National Resources

(v) Honored with Fellow of Botanical Society of Assam (FBSA)

9. **RESEARCH EXPERIENCE:**

Research experience started with the Ph.D. work in Department of Botany, Gauhati University under the guidance of Prof. CM Sarma, while serving as a Lecturer in Pragjyotish College. The Ph.D. work was performed to the thesis entitled "**Effect of Plant Growth Regulators on Growth and Protein Content of Certain Legumes.**" and was awarded with the Ph.D. degree in 2003. For pursuing the Ph.D. work, awarded with '**Teachers' Fellowship**' from UGC for the period 1st Mar/2000 to 28th Feb/2002 and worked as a 'Research Fellow' in the Dept. of Botany, Gauhati University.

In the year 2016, received a **Major Research Project grant** funded by Board of Research in Nuclear Sciences (BRNS), Bhabha Atomic Research Centre (BARC), Dept. of Atomic Energy, Govt. of India on the topic entitled "Application of Physical Mutagen for Improvement of Quality in Two Indigenous Orchid Species of Assam" for a period of 3 years with 26.77 lacs. The Project was successfully completed in March, 2020. Moreover, on micro-propagation of orchids one **Minor Research Project** "Micropropagation of *Rhynchostylis retusa* (L.) Bl and *Phaius tankervilleae* (Aiton) Bl, two Rare and Beautiful Orchids of Assam" grant funded by UGC was received in 2017 for a period of 1.5 years with an amount of 1.85 lacs and successfully completed in 2019. In course of the project work had successfully raised cultures and regenerate thousands of plantlets of indigenous orchid species. Still the work is being carried out, with addition of new wild orchid species of Northeastern India and several reports are

being communicated for publication in peer-reviewed journals.

In addition, several findings and reports on **Floristic Enumeration of Orchid species of Assam** have been published in the national and international journals. This work on enumeration of orchid helped in addition of new information to the 'Orchid Flora of Assam' and collection of a good number of new orchid species from various parts of the state.

Presently working on Application of Physical Mutagen for Quality Improvement of Indigenous Orchid species of Assam especially in *Rhynchostylis retusa* (commonly known as kopou phool) more particularly using Gamma Radiation. Micro-propagation technique has been applied for the purpose.

### **Research guidance**

- Guided one student for **M. Phil.** Degree during 2008-09 under Vinayak Misson University.
  - Guided one Ph. D. student and awarded Ph D degree on the thesis entitled '**Floristic Diversity of Alage of Kamrup district, Assam**' under CMJ University, Meghalay.
- Besides, Guided a number of students in UG level as Dissertation work.

### **Seminars/ Workshops/ Conferences**

Attended and presented papers in seminars and conferences of national and international level across the country. Delivered lectures on Orchids of Assam as resource person in various places. An illustrated book on Orchids of Kokrajhar District will be published soon.

## **(I) Publications:**

### **A. Paper published: 25**

#### **a) In Journals (19)**

1. **Bora RK** and Sarma CM (2003). "Effect of Plant Growth Regulators on Growth, Yield and Protein Content of Pea(cv Azad-P-1)." *Indian Journal of Plant Physiology*. **Vol.8** (sp Iss.) pp. 672-676.
2. **Bora RK** and Sarma CM (2004). "Effect of GA<sub>3</sub> and CCC on Growth, Yield and Protein Content of Soybean (cv. Ankur)". *Environmental Biology and Conservation*. **Vol. 9**. pp. 59-65.
3. **Bora RK** and Sarma CM (2005). "Effect of Growth Regulators on Growth and Yield of Pea." *Advances in Plant Sciences*. **Vol. 18**(2), pp. 835-839
4. **Bora RK** and Sarma CM (2006). "Effect of Gibberellic Acid and Cycocel on Growth, Yield and Protein content of Pea". *Asian Journal of Plant Sciences*. **Vol. 5**(2),pp. 324-330.
5. Basumatary N, **Bora RK** and Sarma CM (2006), "Terrestrial and Epiphytic Orchid Flora of Kokrajhar, Assam." *Environmental Biology and Conservation*.

**Vol. 11**, pp. 1-6

6. Sarma CM, Basumatary N, and **Bora RK** (2006). "Orchids of Assam: I: A Systematic Approach. *OASIS the Journal*, (Australia). **Vol. 3(2)**, PP. 3-10.
7. Sarma CM, **Bora RK** and N Basumatary (2007), " Medicinally important Orchidsof North East India." *Indian Journal Environment & Ecoplanning*. **Vol. 14** (1-2), pp. 91-100.
8. Basumatary N, **Bora R K** and Sarma C M (2008). "Diversity and ecology of orchids in Kokrajhar Distrist (Assam)", *The Journal of the Orchid Society India*, **Vol. 22(1-2)**, pp. 21-28
9. **Bora RK** and Sarma CM (2008). "Interaction between GA<sub>3</sub> and SADH on yield and biochemical attributes of soybean (cv Ankur)." *Journal of Advanced Plant Sciences*. **Vol.4** (1&2), pp. 74-77.
10. **Bora RK**, Basumatary N and Sarma CM (2008). "Terrestrial and epiphytic orchidflora of Kokrajhar, Assam II: Report of some more orchids of the district." *Phytotaxonomy*. **Vol. 8**, pp.58-61.
11. **Bora RK**, Basumatary N and Sarma CM (2009). "A Systematic Approach to the Orchids of Golaghat District, Assam." *Journal of Advanced Plant Sciences*. **Vol. 4(3&4)**, pp. 8- 13.
12. Lahkar G and **Bora RK** (2009). "Desmids and Diatoms from some historical pondsof Kamrup (Metro) District, Assam." *Journal of Advanced Plant Sciences*. **Vol. 4(3&4)**, pp. 41- 46.
13. **Bora RK**, Basumatary N and Sarma CM (2010). "A note on additions to the Orchid Flora of Assam". *Phytotaxonomy*. **Vol. 10**, pp.1- 4.
14. Basumatary N, Das Raju, **Bora RK** and Sarma CM (2010). "Orchid diversity in Manas Biosphere Reserve." *Journal of Advanced Plant Sciences*. **Vol. 5** (1&2), pp. 78- 85.

Contd. -- 4

15. Das Raju, Basumatary N and **Bora RK** (2010). "*Cephalantheropsis longipes* (Hook. f.) Ormerod (Orchidaceae), Addition to the Orchid Flora of Assam." *Journal of Advanced Plant Sciences*. **Vol. 5(1&2)**, pp. 121- 123.
16. **Bora R K** (2011). Distribution of Genus *Acampe* in Assam. *Journal of Advanced Plant Sciences*. **Vol. 5(3&4)**: 50-53.
17. Lahkar G and **Bora R K** (2012). A systematic account on the Desmidiaceae of Kamrup district, Assam (India). *Journal of Advanced Plant Sciences*. **Vol. 6(1&2)**: 1-15.
18. Raju Das, **R. K. Bora**, N. Basumatary, and Khyanjeet Gogoi (2013). Extended distribution of two species of *Bulbophyllum* Thouars. (Orchidaceae) –addition to the flora of Assam, India. *Pleione* **7(2)**: 554 - 559.
19. Amit Kumar Pradhan, Zina Moni Shandilya, Parishmita Sarma, **Ranjan Kumar Bora**, Preetom Regon, Lakshmi Narayana R. Vemireddy and Bhaben Tanti (2023). Concurrent effect of aluminum toxicity and phosphorus deficiency in the root growth of aluminum tolerant and sensitive rice cultivars. *Acta Physiologiae Plantarum* **45**: 33

#### **b) In Proceedings and Books (6)**

1. **Bora RK** (2010). Effect of Plant Growth Regulators on Growth and Protein

Content of Certain Legumes. *In*: summary of the Ph. D. Thesis. **Vol. III.** pp.65-69.

2. **Bora RK**, Basumatary N and Sarma CM (2010). "Potentiality for Commercial Exploitation of Orchids of Assam." *In* : M. Gogoi (ed.) *Recent trends in Biodiversity: Exploitation, Conservation and Management.* pp. 101-107.
3. Lahkar G and **Bora R K.** (2011). Distribution of Chlorophycean algae in the historical ponds of Kamrup (Metro.) District, Assam. *In*: Proceedings of National Seminar on Plant Resource Management and Conservation Strategies in NE Region. pp. 39-49.
4. Basumatary N, Das R, **Bora R K** and Sarma C M (2011). "Assessment of major threats to orchid diversity in Chirang, Rajapara and Nambor reserve forests of Assam" *In*: Proceedings of National Seminar on Plant Resource Management and Conservation Strategies in NE Region. pp. 436-443.
5. **Bora RK**, Basumatary N and Sarma CM (2019). Ecology and community dynamics of epiphytic orchids in moist deciduous forests of Assam. *In*: R Basumatary and S Ojhah (eds.) *Biodiversity and Its Conservation: Issues and Cases from Assam.* Saraswati Books, Guwahati, Assam. pp. 33-44.
6. Monish Paul, M. Kropi, P. Gogoi, N. Basumatary, P Suprasanna and **R. K. Bora** (2021). X-Ray irradiation induced effects on Seed Germination and Growth characteristics of *Rhynchosytilis retusa* (L) Bl. *In*: R Sharma, N Nath and M C Kalita (eds.) *Wild Edible Bioresources of North East India.* EBH Publishers (India), Guwahati. pp. 49-54

**c) Book Published: 1 (In Press)**

1. Raju Das, N Basumatary, **R K Bora** and S Kumar (2022). *A Photo Guide to Orchids of Kokrajhar District Bodoland, Assam.* Ambika Prasad Research Foundation, Cuttack. **ISBN: 978-81-952750-0-7.**

**III. Paper Presented: 18** (National 13 and International 5)

**A. International Level: 5**

- (i) **Bora RK** and Sarma CM (2002) "Effect of plant growth regulators on growth, yield and protein content of pea (cv. Azad P-1)". Presented at 2<sup>nd</sup> International Congress of Plant Physiology on 'Sustainable Plant Productivity Under Changing Environment' *Abstr.* p. 511.
- (ii) **Bora RK**, Basumatary N and Sarma CM (2011). "Orchid of Assam III: Dynamism among Epiphytic Orchids" Presented at International Seminar on Bioresources and Human Sustenance held on 20 - 22th Oct. 2011 at Cotton College, Guwahati. *Abstr.* p. 73.
- (iii) **Bora RK**, Basumatary N and Sarma CM (2011). "Epiphytic Orchids of Assam and Their Adaptation to Various Abiotic Stresses." Presented at 3<sup>rd</sup> International Plant Physiology Congress on Challenges and Strategies in Plant Biology Research held on 11-14 Dec. 2015 at JNU, New Delhi. Online Abstract: Id No. IPPC 0911.
- (iv) Malin Kropi, Parkey Gogoi, N Basumatary and R K Bora (2018). "Effect of physical mutagen on germination and subsequent growth of *Rhynchosytilis retusa* (L) Bl." Presented in International Conference on Climate Change, Biodiversity and Sustainable Agriculture (ICCBSA- 2018) held at Assam Agricultural University, Jorhat, 13-16<sup>th</sup> December, 2018.

- (v) Malin Kropi, Parkey Gogoi, and R K Bora (2019). Effect of X-rays on germination and subsequent growth on *Phaius tankervilleae* (Aiton) Bl. Presented in Assam Botany Congress and International Conference on Plant Science, Gauhati University 4-6<sup>th</sup> February, 2019. Abstr. pp 160.

## **B. National Level: 13**

- (i) **Bora RK** and Sarma CM (2002). "Effect of growth regulators on growth and yield of pea". Presented at 72nd annual session of National Academy of Sciences held at NEHU, Shillong. *Abstr.* p. - 61.
- (ii) **Bora RK** and Sarma CM (2003). Effect of plant growth regulators on growth and yield of pea (cv. Aparna)". Presented at 11th APSI National Conference on 'Biotechnology for health, Agriculture and Industry'. *Abstr.* p. -34.
- (iii) **Bora RK** and Sarma CM (2003). "Effect of GA<sub>3</sub> and CCC on growth, yield and protein content of soybean (cv. Ankur)". Presented at National Seminar on 'Impact of Increasing Human Population on Natural Resources. *Abstr.* p. - 15.
- (iv) Basumatary N, **Bora RK** and Sarma C M (2008). "Diversity and Ecology of Orchidaceae in Kokrajhar District of Assam." Presented at National Seminar on 'Orchids: Science and Society' at Bangalore. *Abstr.* p.- 113
- (v) **Bora RK**, Basumatary N and Sarma CM (2008). "Potentiality for Commercial Exploitation of Orchids of Assam." Presented at National Seminar on "Recent trends in Biodiversity: Exploitation, Conservation and Management" 14-15 Nov./2008, Gargaon College. *Abstr.* pp. 26-27.
- (vi) Basumatary N, **Bora RK** and Sarma C M (2008). "Orchids of Assam: Potential Bioresources for Employment Generation" Presented at National Seminar on "Bioresources of North East India: Industrial Potentials and Intellectual Property Right Issues" 2-3 Jan./2009, Nowgong College. *Abstr.* pp. 124-125.
- (vii) Bora RK, **Basumatary N** and Sarma CM. "Orchids of Assam II: an Eco-physiological Approach" Presented at National Seminar on "Frontiers in Plant Physiology towards Sustainable Agriculture" on 5-7 Nov./2009 at Assam Agricultural University, Jorhat, Assam. *Abstr.* p. 223.
- (viii) Basumatary N, Das Raju, **Bora R K** and Sarma C M "Orchid diversity in Manas Biosphere Reserve" Presented at National Seminar on "Bioresources, Habitat, Threats, Conservation Strategies and Sustainable Development" on 10 – 11 Nov. 2010. at Hojai College, Hojai. p. 16.
- (ix) Lahkar G and **Bora R K**. "Distribution of Chlorophycean algae in the historical pond of Kamrup (Metro.) District, Assam." Presented at National Seminar on "Plant Resourced Management and Conservation Strategies in NE Region" on 18-19 Feb./2011 at Cotton College, Guwahati.
- (x) Basumatary N, Das R, **Bora R K** and Sarma C M. "Assessment of major threats to orchid diversity in Chirang, Rajapara and Nambor reserve forests of Assam" Presented at National Seminar on "Plant Resource Management and Conservation Strategies in NE Region" on 18-19 Feb./2011 at Cotton College, Guwahati.
- (xi) **Bora RK** and Basumatary N. "Sub-aquatic orchids of Assam." Presented at National Seminar

on Wetland Ecosystems: Conservation and Management with reference to North East India on 21-22 June, 2013 at AV College, Guwahati.

- (xii) Malin Kropi, Parkey Gogoi, and R. K. Bora (2019). Effect of different media with different plant growth regulators on germination and subsequent growth of *Phaius tankervilleae* (Aiton) Bl. Presented at National Seminar at JN College, Boko.
- (xiii) Monish Paul, M Kropi, P Gogoi, N Basumatary, P Suprasanna and R K Bora. Effects of Gamma Radiation on Seed Germination and Growth characteristics of *Rhynchosyilis retusa* (L) Bl. Presented at National Seminar on Rural Development in India: Present Scenario and Future Challenges” on 17-18 Nov. 2019 at Degree College Nala, Jamtara, Jharkhand

### **C. Invited Lectures:**

- (i) Charired a Technical Session in National Seminar on Recent trends in Biodiversity: Exploitation, Conservation and Management at Gargaon College on 15 Nov. 2008.
- (ii) 'Orchid Diversity of Assam: Problems and Prospects.' delivered on Celebration of World Biodiversity Day by Botanical Society of Assam in 2010.
- (iii) 'Orchid diversity of Bodoland Territorial Council': Key note address in the National Seminar on Biodiversity of BTC at Kokrajhar Science College.

### **(a) Regional Seminar/ Workshop/ Training Course: 5**

- (i) First north Eastern Regional Workshop on production and Quality control of Biofertilizer, held at G.U. from 26-27 Feb.2003.
- (ii) Participated in the training course on "**Introduction to Basics of Retrieval and Creation of Scientific Databases**" organised by Bio-informatics Centre, NEHU, Shillong from 23-25 Feb. 2004.
- (iii) Workshop on “Bioinformatics and its future prospects.” 9th June/2006. GU.
- (iv) Faculty Improvement Programme organized by Icfai University on 4th Feb./ 2008 at Guwahati.
- (v) Seminar on "Public Funded Education System: Challanges and Responsibilities" Organized by Kamrup Zone A, Assam College Teachers' Association held at K CDas Commerce College, Guwahati on 24th Dec./2008.

### **(b) Numbers of Refresher / Orientation courses attended with year:**

- (i) Attend Orientation course sponsored by UGC from 29 th May to 25 th June 2000 at Academic Staff College, Gauhati University.
- (ii) Attend Refresher course in Botany sponsored by UGC from 18 th Sept. to 8th Oct. 2001 at Dept. of Botany NEHU, Shillong.

(iii) Attended UGC sponsored R.C. in Botany from 6th June to 25th June 2005 at ASC, Gauhati University.

(iv) Attended UGC sponsored R.C. in Biochemistry from 1st Sept. to 21st Sept. 2006 at A.S.C., Burdwan University.

**10. Membership of learned academic/ professional bodies:**

**(a) Life Member of**

(i) The Indian Society for Plant Physiology.

(ii) International Society for Conservation of Natural Resources.

(iii) Botanical Society of Assam.

(iv) Association for Plant Taxonomy, Dehradun.

(v) East Himalayan Society for Spermatophyte Taxonomy

**11. Other Experience:**

(i) Served as Teacher in-charge of Music Section of Pragjyotish College Students' Union for 4 years.

(ii) Served as member of Annual Examination Committee of Pragjyotish College in 2003

(iii) Served as Convenor, Plantation Committee of Pragjyotish College during 2002-05.

(iv) Served as a Central Executive Member of ACTA during 2005-06.

(v) Served as Asst. Officer - in-Charge of TDC Examamination 2006, 07, 11, 2012.

(vi) Serving as Member of the Editorial Board of College Magazine.

(vii) Serving as Convenor, Vigilance Committee of Pragjyotish College.

(viii) Served as **Member, Editorial Board**, *Journal of Advanced Plant Sciences*.

(ix) Served as Editor, **Editorial Board**, *Journal of Advanced Plant Sciences*.

*The above statements are true to the best of my knowledge and belief*



(Ranjan Kumar Bora)

Associate Professor in Botany

Pragjyotish College, Guwahati, Assam.

Pin- 781009 (India)