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CURRICULUM VITAE  
**Dr. Joydeep Bhattacharjee**  
Assistant Professor

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Garrett 231,  
Department of Biology,  
University of Louisiana, Monroe  
LA 71209-0520

Phone: (318) 342-1946  
Fax: (318) 342-3312  
E-mail: joydeep@ulm.edu

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PROFESSIONAL PREPARATION

PhD (*Wildlife Science, August 2005*)

Texas Tech University, Department of Range, Wildlife, and Fisheries Management, Lubbock, Texas.

Master of Science, (*Botany, awarded distinction, 2000*)

Specialization: *Cytology and Genetics*

North Bengal University,  
Darjeeling, India.

Bachelor of Science (*Honors in Botany, 1996*)

Minor: *Zoology and Chemistry*

Siliguri College,  
Darjeeling, India.

APPOINTMENTS

**Assistant Professor** (*August 2006 - present*)

Plant and Restoration Ecology  
Department of Biology  
University of Louisiana, Monroe.

**Postdoctoral Research Associate** (*September 2005 –June 2006*)

(with Dr. David Haukos<sup>1</sup> and Dr. Loren M. Smith<sup>2</sup>)

Department of Range, Wildlife, and Fisheries Management,  
Texas Tech University Lubbock, Texas

<sup>1</sup> *I have evaluated vegetation response to disturbance (influence of muskrat grazeout) in an intermediate marsh in the Texas Gulf Coast.*

<sup>2</sup>*I have also examined the extent and importance of playa wetlands in recharge of the Ogallala aquifer in the Southern Great Plains of Texas. This project aims to develop means to quantify the recharge of the aquifer through playas. I am currently involved in developing computer programs and setting up data loggers to measure meteorological and other landscape level measurements in the playa wetlands. The plan is to develop models of recharge of the Ogallala through these wetlands.*

**Graduate Research Assistant (November 2001 – August 2005)**

Department of Range, Wildlife, and Fisheries Management

Texas Tech University

Major Professor: Dr. Loren M. Smith

(806) 742-2842

*I have conducted research on ways of restoring native riparian vegetation in the Middle Rio Grande Valley in New Mexico. My research focused on the effect of controlled water drawdown on recruitment of cottonwood. In addition I have evaluated intraspecific (native cottonwood seedlings) and interspecific competition (between seedlings of cottonwood and exotic saltcedar) under natural field conditions.*

**Research Associate (May 1999 – October 2001)**

Centre for Studies in Rural Economy Appropriate Technology and Environment (CREATE),  
St. Joseph's College, Darjeeling, INDIA.

Collaborative Research Centre of International Forestry Resources and Institutions (IFRI),  
Indiana University, Bloomington, USA

Director: Dr. Milindo Chakrabarti

**May 1999 – October 2001**

*I have conducted field surveys (Using the International Forestry Resources and Institutions protocol) at 12 sites in North Bengal, India, to study causes underlying extensive deforestation in the northeast Himalayas. This research involved socio-economic profiling of the forest fringe dwellers and its impact on forest use. As a part of a research team, I was also involved as a botanist creating benchmark data for floristic diversity assessment of the remote regions of the North East Himalayas.*

**October 2000 – January 2001**

*I have carried out status surveys of the Manipur Bush Quail (*Perdica manipurensis*), in the Buxa Tiger Reserve, India. The species is on the endangered birds list and was last reported in the area as early as 1930. The project involved surveying of potential habitat in the area and communication with tribesmen regarding sightings of the bird. This survey was conducted under the "Important Bird Areas" (IBA project), a global Bird*

*Conservation program of the Royal Society for the Protection of Birds (RSPB), UK and Birdlife International, UK.*

**June – July 1999**

*I have carried out field surveys in Bhagawati Palanchok area in central Nepal on the role of local institutions in the harvest and management of forest resources, as part of IFRI training. Represented CREATE, Darjeeling, India in a research team including members from University of Washington, Yale University and Katmandu University.*

**Masters' Thesis (1998 – 1999)**

Department of Botany

Cytology-Genetics Laboratory

North Bengal University

Darjeeling, India.

Major Advisor: Dr. Kalyan B. Datta DSc. (Retired)

*I have worked on the laboratory analysis of “The effects of various organic additives on the growth and regeneration of Protocorm like bodies (PLBs) in Vanda cristata (Orchidaceae)”, an endangered orchid species of the northeast Himalayas, using tissue culture techniques. I standardized the nutrient medium that shortened the germination time (less than a fortnight), which in nature can take as long as a year under natural conditions.*

**TEACHING** (PhD and Assistant Professor, only)

1. **BIODIVERSITY (RWFM 2307):** A course designed for majors in Wildlife Science at the Department of Range, Wildlife and Fisheries Management (now the Department of Natural Resources Management), at Texas Tech University, Texas.
2. **THE LIVING WORLD (BIOL 1001):** A non-majors' course covering basic scientific and biological principles with an emphasis on the structure and processes of organisms. The course also includes a survey of the major types of living organisms.
3. **PRINCIPLES OF BIOLOGY II (BIOL 1022):** A majors' course dealing with natural selection, population genetics, speciation, adaptation, phylogeny, co-evolution, extinction, ecological interactions, human evolution and its ecological impact.
4. **PRINCIPLES OF BIOLOGY II LABORATORY (BIOL 1023):** A laboratory designed to accompany Biology 1022. *I have revised the existing syllabus for the lab and updated the*

*experiments and redesigned the course in a way where students are required to exercise critical thinking and improve their cognitive abilities.*

5. **ECOLOGICAL METHODS (BIOL 4004):** *I have revised this course, incorporating recent advances in the subject, including a general understanding of the computational/modeling aspects in ecology.*
6. **PLANT COMMUNITY ECOLOGY (BIOL 4044):** This course essentially deals with the study of plant populations and communities and their habitat with emphasis on the communities of the south central US. *I will be creating a special section in the syllabus that talks about the importance of wetland plant communities and their importance in maintaining the high-level of biodiversity seen in the southwestern US. I plan to offer this course in the Fall of 2012.*
7. **GRADUATE SEMINAR (BIOL 5007):** Redesigned this course as a two-part process. During the first part students present a talk on a topic of their choice and are peer evaluated. In the second part they are required to talk on a topic relevant to general biology. Students were also asked to critique two scientific papers.
8. **ECOSYSTEM AND COMMUNITIES (BIOL 4113):** This is a university capstone course. I have developed this course and am teaching it once every two years (Spring 2010 and Spring 2012). The major emphasis of this course is to tie the concepts of human mediated ecosystem changes globally.
9. **PLANT SYSTEMATICS (BIOL 5034):** I developed and taught this course in the Fall of 2008. The main components of taxonomy: description, identification, nomenclature, and classification were discussed, including in-depth evaluation of 10 plant orders.

## RESEARCH

### Research Interests:

#### 1. **Lichens: Indicators of air and habitat quality.**

Currently, I am working on lichens in the area with my graduate student and an undergraduate in my lab. One of our primary goals is to create a comprehensive list of lichen genera in Ouachita and other adjoining parishes. In addition to this, we plan on evaluating trends in global lichen diversity on a latitudinal gradient. Further, we plan on examining if similar trends in diversity also exist in altitudinal gradients in a

given area. For this we are looking at conducting research in the Himalayas, pending research funds.

## **2. Restoration of bottomland hardwood forests in northeast Louisiana.**

Bottomland hardwoods are critical habitats for wildlife and are oases of biodiversity in this region. Along with one of my graduate students and an undergraduate researcher, I am evaluating restoration success of a planted forest after 25 years (at the Ouachita Wildlife Management Area). This project will further evaluate natural succession within the WMA that have been left fallow.

### **Grants** (funded/submitted/pending):

**2012-2015.** My Eye-Pad: Developing a digital field journal for students. Discovery Research K-12 (NSF) Project, University of Louisiana at Monroe. [\$448,873] Role: CO-PI, Dr. Lynn Clark (PI).

**2011 - 2013.** Carbon dynamics of a bottomland hardwood forest in Northeast Louisiana. [\$140192] Submitted to Louisiana BOR. Role: PI, with Dr. Ann Case-Hanks (CO-PI).

**2011 – 2013.** Carbon dioxide flux station: A tool to measure regional climate trends. [\$166876] Submitted to Louisiana BOR, Enhancement grant. Role: PI, with Dr. Ann Case-Hanks (CO-PI).

**2011 - 2012.** Nurse-Plants: Modeling light and soil moisture gradients. Deans' Research and Creative Project Fund, University of Louisiana Monroe. [\$775] – Funded.

**2011 – 2012.** Primary production and carbon sequestration potential of High Altitude Wetlands in the Himalayas. [\$10000] Submitted to Louisiana BOR, Pfund grant. Role: PI.

**2010 – 2011.** Out-standing in the field: Real World Science Experiences for Middle School. Louisiana Systemic Initiatives Program (LaSIP). Role: CO-PI, Dr. Lynn Clark (PI) and Dr. Ava Pugh (CO-PI) [\$130994] – Funded.

**2009-2010.** Cyber-Flora Louisiana Outreach (BOR), Louisiana Board of Regents Enhancement Program. Role: Co-PI, with Dr. Tom Sasek (PI) and Mr. Denis Bell (Co-PI). [\$56150]- Funded.

**2003-2004.** Matching funding for 3 yr., Restoration of Native Riparian Flora. Funded by Middle Rio Grande Bosque Initiative Group (with Dr. L. M. Smith and John Taylor). [\$24,000] – Funded.

**1999-2001.** IBA (Important Bird Area) Survey of some non-protected sites of Darjeeling Hills. Funded by Bombay Natural History Society and Indian Bird Conservation Network (with Dr. Sarala Khaling). [\$1000] – Funded.

**Peer reviewed publications:**

Reid, M. L. and **J. Bhattacharjee**. 2012. Effects of Levee on tree and sapling mortality in a reforested bottomland hardwood forest following flooding. *Southwest Naturalist*. (In review)

**Bhattacharjee, J.** and A. Fotis. 2012. Race to Catch Water: Morphological Changes in Cottonwood Seedlings in Riparian Habitats. *Journal of Arid Environments*. (In review)

Wakefield, J. M and **J. Bhattacharjee**. 2012. The effect of air pollution on morphological characteristics and chlorophyll content of lichens in Northeast Louisiana. *The Bryologist*. (In review)

**Bhattacharjee, J.,** J. P. Taylor Jr., and L. M. Smith. 2010. Optimum seedling productivity in cottonwoods: A function of neighbor distance. *Journal of Arid Environments* 74: 1018-1023.

Loren, H., A. Chesh, R. Castro, T. Ortiz, **J. Bhattacharjee**, L. Ebensperger. 2009. Fitness consequences of group living in the degu, *Octodon degus*, a plural breeder rodent with communal care. *Animal Behaviour* 78: 131-139.

**Bhattacharjee, J.,** D. Haukos, and J. Neaville. 2009. Influence of biotic and abiotic factors on productivity of a coastal marsh. *Wetlands* 26: 690-696.

**Bhattacharjee, J.,** J. P. Taylor Jr., L. M. Smith, and D. A. Haukos. 2008. Seedling competition between native cottonwood and exotic saltcedar: implications for restoration. *Biological Invasions*. DOI 10.1007/s10530-008-9357-4.

**Bhattacharjee, J.,** J. P. Taylor Jr., L. M. Smith, and L. E. Spence. 2008. The importance of soil characteristics in determining survival of first year cottonwood seedlings in altered riparian habitats. *Restoration Ecology* 16:563-571.

**Bhattacharjee, J.,** D. Haukos, and J. Neaville. 2007. Vegetation response to disturbance in an intermediate coastal marsh in Texas. *Community Ecology* 8:15-24.

**Bhattacharjee, J.**, J. P. Taylor Jr., and L. M. Smith. 2006. Controlled flooding and staged drawdown for restoration of native Cottonwoods in the Middle Rio Grande Valley, New Mexico. *Wetlands* 26:691-702.

Nicholson, K. L., D. M. Ghioca, S. M. Torrence, **J. Bhattacharjee**, A. E. Andrei, J. L. Owen, N. A. Radke, and G. Perry. 2005. Activity patterns of the lizards *Anolis stratulus* and *Ameiva exsul* in the British Virgin Islands. *Caribbean Journal of Science* 41:870-873.

**Professional meetings / seminars:**

**2009 (August)** : ‘Lichens: Bio-indicators of air quality.’ J. M. Wakefield\* and J. Bhattacharjee. Presented at the 2009 Fall Symposium, Louisiana Association of Professional Biologists, Lafayette, Louisiana. (\* denotes the presenter)

**2009 (April)** : ‘Lichens: Bio-indicators of air quality.’ J. M. Wakefield\* and J. Bhattacharjee. Presented at the 70th Annual Meeting of the Association of Southeastern Biologists, Birmingham, Alabama. (\* denotes the presenter)

**2008**: ‘Integrating mathematical concepts across the biology curriculum.’ Findley, A.M, Saydam, A. S, Magoun, A. D., and Bhattacharjee, J. Presented a poster at the Quantitative Biology Workshop, HHMI Sponsoring Organization, Howard Hughes Medical Institute, Washington, DC.

**2007**: ‘Remediation efforts, introductory biology sequence, biostatistics, and bioinformatics.’ Findley, A.M, Bhattacharjee, J., Saydam, A. S, and Magoun, A. D. Poster presented at the ‘Quantitative Biology Curriculum Planning Workshop (Hosted by the Howard Hughes Medical Institute) at East Tennessee State University, USA.

**2004**: Presented paper – “Intraspecific competition in cottonwood seedlings: A driving force in shaping riparian community in the Middle Rio Grande Valley, New Mexico” at the 25<sup>th</sup> Annual Meeting of the Society of Wetland Scientists, Seattle, Washington, **USA**.

**2003**: Presented paper – “Cottonwood and saltcedar seedling response to regulated flooding in the middle Rio Grande valley, New Mexico” at the 38<sup>th</sup> Annual Meeting of the Texas Chapter of The Wildlife Society, Waco, Texas, **USA**.

**2003**: Presented paper – “Cottonwood and saltcedar seedling tolerance to receding water table and soil salinity in the middle Rio Grande valley, New Mexico” at the 24<sup>th</sup> Annual Meeting of the Society of Wetland Scientists, New Orleans, Louisiana, **USA**.

**2003:** Presented paper – “Restoring native riparian forests along the Middle Rio Grande Basin, New Mexico” at the 15<sup>th</sup> Annual International Conference of the Society of Ecological Restoration, Austin, Texas, **USA**.

**2003:** Invited Talk – “Phyto-invasion”, at the H. Lavity Stoutt Community College, Tortola, British Virgin Island, **UK**.

**Popular articles / reports/dissertation/thesis:**

**Bhattacharjee, J.** 2005. Restoration of Native Riparian Vegetation and Competition between Cottonwood and Saltcedar in the Middle Rio Grande Valley, New Mexico. Doctoral dissertation. Texas Tech University, Lubbock, Texas, **USA**.

**Bhattacharjee, J., L. M. Smith, and J. P. Taylor.** 2004 Restoration of Native Riparian Vegetation and Competition between Cottonwood and Saltcedar in the Middle Rio Grande Valley, New Mexico. *In* Research Highlights: Volume 35. Department of Range, Wildlife, & Fisheries Management, Texas Tech University, Lubbock, Texas.

**Bhattacharjee, J.** 2004. Progress Report – Field Season 2002-2004: Restoration of Native Riparian Vegetation and Competition between Cottonwood and Saltcedar in the Middle Rio Grande Valley, New Mexico. Report submitted to the US Fish and Wildlife Service (Bosque Improvement Group), Regional Office, Albuquerque, New Mexico.

Andrei, A., **J. Bhattacharjee**, D. M. Ghioca, K. Nicholson, J. Owen, N. A. Radke, S. M. Torrence, G. Perry. 2003 Cool lizards stay warm. *In* Research Highlights: Volume 34. Department of Range, Wildlife, & Fisheries Management, Texas Tech University, Lubbock, Texas.

**Bhattacharjee, J.** 2003. An effort to restore the Cottonwood Forests along the Middle Rio Grande Valley. Friends of the Bosque, Volume 10, Issue 5.

**Bhattacharjee, J., L. M. Smith, and J. P. Taylor.** 2003 Restoration of Native Riparian Vegetation and Competition between Cottonwood and Saltcedar in the Middle Rio Grande Valley, New Mexico. *In* Research Highlights: Volume 34. Department of Range, Wildlife, & Fisheries Management, Texas Tech University, Lubbock, Texas.

**Bhattacharjee, J.** 2003. Progress Report – Field Season 2002-2003: Restoration of Native Riparian Vegetation and Competition between Cottonwood and Saltcedar in the Middle Rio Grande Valley, New Mexico. Report submitted to the US Fish and Wildlife Service (Bosque Improvement Group), Regional Office, Albuquerque, New Mexico.



**Organizational membership :**

Nominated member of the Sigma Xi Scientific Research Society  
Association for Southeastern Biologists  
Society for Ecological Restoration  
The Society of Wetland Scientists  
Ecological Society of America  
The Savory Center of Holistic Management

**SERVICES**

**Professional:**

1. Referee for the following journals
  - a. WETLANDS
  - b. ENVIRONMENTAL MANAGEMENT
  - c. ECOSPHERE
2. Advisory member of the Biological Review Board of the North Louisiana Refuge Complex.

**University:**

1. Research advisor for the following students:

M.S. (Current):

Matthew Reid (Committee Chair);  
Matthew Pardue (Committee Member),  
Amanda Chappell (Committee Member)

M.S. (Former):

Alexander Fotis (Committee Chair); currently Ph.D. student at The Ohio State University  
Jessica Wakefield (Committee Chair); currently Wildlife Biologist, US Forest Service  
Sam Holcomb (Committee Member)  
Christopher Rice (Committee Member)

Research Mentor for Undergraduates:

Stephanie Allen; Brittany Kuethe; Ann Ho; Suraj Sapkota; Ashley Maxwell; Lee Daniel;  
Jonathan Emmons; Anna Beth Cannon; Alexis Traylor; Lauren Cobb; Deanna Breaux;  
Calisha Brown; Abigail Sosa; Brittany Baker.

2. Advisor for the Tri-Beta chapter (Nu-Gamma) at ULM
3. Coordinator for the BIO 1023 laboratory
4. Faculty member of the Conducts and Standards Committee at ULM.
5. Faculty member of the Recruitment and Retention Committee, College of Arts and Sciences, at ULM.
6. Faculty member of the Institutional Review Board, at ULM.
7. Ad-hoc member of the International Student Recruitment Committee at ULM.

Recruitment and Retention:

1. Attended advising training sessions, (by Ms. Robyn Jordan) 2006 and 2007.
2. Talked about the research and teaching facilities available at ULM to newly admitted students during PREP-SESSIONS, 2007.
3. Took part in the process of recruiting new students through “Browse on the Bayou” (a special campus visitation by high school juniors and seniors).
4. Attended graduate students mixers and tail-gating events.

Community:

**2009 - present.** Promoted to a Challenge Master for state level competition for Destination Imagination, Louisiana.

- 2008.** Was an appraiser (judge) for the state level competition for Destination Imagination, Louisiana.
- 2007.** Was an appraiser (judge) for the state level competition for Destination Imagination, Louisiana.
- 2007.** In charge of the "Disease Detective" wing of the Science Olympiad
- 2007.** Judge for the Plant Section, in the Louisiana Region III Science Fair
- 2005- 2006.** Judged science projects at a Science Fair, Nat Williams Elementary School, Lubbock, Texas.
- 2002 – 2003.** Volunteered for the annual inventory at the Nature Store Inventory, Bosque del Apache National Wildlife Refuge, New Mexico.
- 2002.** Volunteered for the Llano Estacado Audubon Society in cleaning and maintenance of birding/nature trails in the Buffalo Spring Lake.
- 1999 – 2000.** Member of the “Adult Literacy Program” [teach basic level Science to rural adult community] of the North Bengal University, a part of the National Government “Each one, teach one” policy.
- 1998 – 2000.** Was a resident volunteer at the Siliguri Welfare Society (involved in various activities such as organizing blood donation camps, help coordinate relief operations during times of flood, and promoting basic science among village children.

### **HONORS AND AWARDS**

- 2011.** Awarded 3<sup>rd</sup> Place (category-animals) in the Annual Photography contest at the Black Bayou Lake National Wildlife Refuge, Monroe, LA.
- 2010.** Was selected for “Who is who in America”, by Marquis, 64<sup>th</sup> Edition.
- 2010.** Nominated for “Who's Who among Executives and Professionals” (candidacy approved)
- 2009.** Awarded two 1st Places and a 3<sup>rd</sup> Place (in three separate categories) in the Annual Photography contest at the Black Bayou Lake National Wildlife Refuge, Monroe, LA.
- 2006.** Awarded a certificate of outstanding participation from the ‘Academy of Teaching Excellence’ (Teaching and Learning Resource Center) at ULM.

**2006.** Awarded 3<sup>rd</sup> Place in Annual Photography contest at the Black Bayou Lake National Wildlife Refuge, Monroe, LA.

**2003.** Recipient of the International Education Fee Scholarship, Office of International Affairs, Texas Tech University (Fall 2003).

**2003 and 2004.** Recipient of travel grants from the Department of Range, Wildlife, and Fisheries Management, Texas Tech University, for attending professional meetings and conferences.

**1999.** Honored with a distinction in the final examination during the Masters' degree at the North Bengal University, India.

**1996.** Was an honored student during Bachelors' degree at Siliguri College, Darjeeling, India.

**1994.** Was awarded the first position at an inter-collegiate debate competition held during the Siliguri festival of arts and culture.

**LANGUAGE SKILL** (in addition to English)

**Bengali** (Speak, read and write)

**Hindi** (Speak and read)

**Nepali** – spoken in Nepal (Speak and read)

**Dzongkha** – spoken in the Kingdom of Bhutan (Speak only)

**Spanish** – beginner