

# BUDHADITYA CHOWDHURY

## CURRICULUM VITAE

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### **Research Interests:**

I am interested in quantitative characterization and analysis of behavioral phenotypes in hunting dogs. Unique selection patterns in dog breeds over centuries make them ideal models to look into the genetics of instinctive behaviors like pointing. I am trying to establish relevant behavioral subsets in order to tease out the genetic underpinnings of hunting behaviors.

### **Education:**

- 2007 -** **Doctoral candidate**  
**Mentor: Dr. Robert Huber and Dr. Moira Van Staaden**  
Department of Biology, Bowling Green State University, OH, USA
- 2005 - 07** **Master of Science (Life Sciences)**  
Department of Zoology, Siksha Bhavana  
Visva Bharati University, India
- 2002 - 05** **Bachelor of Science (Life Sciences)**  
Department of Zoology, Siksha Bhavana  
Visva Bharati University, India

### **Awards and Achievements:**

- 2007** Ranked second in M. Sc Examination.
- 2005 - 06** Selected to work in National Center for Biological Sciences (NCBS).  
  
Indian Academy of Sciences Summer Research fellowship.  
  
Ranked first in B. Sc Examination.

## Research Experience:

**Project 1: Effects of Various Assumptions about Migration Rate on the Dynamics of Subpopulations in a Metapopulation Context.** (With Dr. Amitabh Joshi, Evolutionary and Organismal Biology Unit, JNCASR, Bangalore): In this project I looked into various assumptions regarding the migration rate (stochastic rate, stochastic event, density dependence, effect of carrying capacity and crowding, etc) and how they change the dynamics of subpopulations, which in the broader aspect help to modify the dynamics of metapopulations. The model organism was *Drosophila*.

**Project 2: Genetic diversity among different predefined populations of Pakistan and an effort to infer evolutionary history and demography.** (With Dr. Uma Ramakrishnan, National Center for Biological Sciences, Tata Institute for Fundamental Research, Bangalore): In this project I used microsatellite data (tetranucleotide repeats) of seven predefined Pakistani populations and calculated various aspects of the populations (effective population size, mutation rate, mismatch distribution, genetic distance etc.) in order to find out their evolutionary history and population patterns.

## Teaching:

2008	Fall	Biol 204H (lab)	Ecology Evolution and Animal Behavior.	(20)
	Summer	Biol 101 (lab)	Environment of Life	(10)
2007	Spring	Biol 101 (lab)	Environment of Life	(60)
	Fall	Biol 101 (lab)	Environment of Life	(80)

## Technical Skills:

- **Molecular biology:** DNA extraction, PCR, Electrophoresis.
- **Ecology:** Community composition estimation, BOD/COD estimation, various species sampling methods.
- **Cytogenetic techniques:** DNA sequencing.
- **Computer Programming:** C and Java.
- **Use of different computational data analysis programs:** JavaGrinders, ARLEQUIN, SPLATCHE, PHYLIP, TREEVIEW, SERIAL SIMCOAL, MSVAR.

## Positions:

2008 President of the Bowling Green State University Ornithological Society.