

Jayanti Ray-Mukherjee

Life Sciences (Ecology)



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I have a PhD from Utah State University (USA) on plant eco-physiological mechanisms for stress tolerance. My broad interest in ecology in on species interactions and mechanisms of species coexistence. Within this realm, I am also interested in understanding patterns of species diversity and distributions and environmental variables that determine such patterns. I am interested to understand such patterns and mechanisms in natural as well as urban ecosystems.

# **CURRENT RESEARCH**

Methodology

### Topic

Patterns of invertebrate species richness and diversity of South Africa Performing statistical analyses on large, long-term data sets of invertebrates from KwaZulu-Natal province of South Africa

## Application

Identification of species and areas of immediate conservation relevance.

## **UKZN** Publications

#### Ongoing...

## Past Researches

Plant eco-physiology and mechanisms of stress tolerance, functional traits and stress-tolerance strategies, species richness and diversity patterns.

- Mukherjee, S., **Ray-Mukherjee, J.,** and Sarabia, R. Crows and roads: observations on the traffic behavior of crows. *Canadian Field Naturalist (in press)*.
- **Ray-Mukherjee, J.**, Jones, T.A., and T. A. Monaco. Biomass and defoliation tolerance of 12 populations of *Pseudoroegneria spicata* at two densities. *Rangeland Ecology and Management (in press)*.
- **Ray-Mukherjee, J.**, Jones, T. A., Adler, P. B., and Monaco, T. A. 2011. Drought tolerance in two perennial bunchgrasses for restoration in the Intermountain West, U.S.A. *Plant Ecology* 212: 461-470.
- **Ray-Mukherjee, J.**, Jones, T. A., Adler, P. B., and Monaco, T. A. 2011. Immature seedling growth of two North American native perennial bunchgrasses and the invasive grass *Bromus tectorum*. *Rangeland Ecology and Management*: 64: 358 365.
- Ray-Mukherjee, J., Chelladurai, V., Ronald, J., Rawat, G. S., Mani, P., and Huffman M. A. 2010. Do animals eat what we do?: ethnobotanical and ecological observations on humans and animals of Mundanthrai range, Tamil Nadu, India. In: C. P. Kala (ed.). *Medicinal plants and sustainable development*. Nova Science Publishers, NY, USA.

## Future Interests

Research in interdisciplinary projects, Academia, Participation in Research Institutes, Collaborative research with Govt. organization.

## Extra Interests

Travel, Gardening, Psychology, Badminton, and most importantly reading about human evolution and the paranormal.