



Sarmistha Banik

Designation: Associate Professor of Zoology

Qualifications: M.Sc., Ph. D.

Brief Introduction: Obtained the Undergraduate (B.Sc.) Degree (Hons) in Zoology in 1984 from the MUC Womens' College, Burdwan, West Bengal. Obtained the Postgraduate (M.Sc.) Degree in Zoology from the University of Kalyani, Kalyani, Nadia, West Bengal in 1987. Awarded the Ph. D. Degree in Science from the Department of Zoology, University of Kalyani in 1994.

Research Interests: (i) During doctoral research worked on the therapeutic effect of homeopathic drugs in mice model. (ii) During Postdoctoral research in Bose Institute, Kolkata (DBT, PDF) worked on *in vivo* study of oogenesis in *Macrobrachium rosenbergii*. (iii) Worked on ant behaviour in captivity as a part of UGC Minor Research Project.

Experience: Joined Dinabandhu Mahavidyalaya, Bongaon, N. 24 Parganas, West Bengal as a Lecturer in Zoology in 1997. Later joined West Bengal Educational Service at Bethune College, Kolkata in 1999 and subsequently transferred to the Chandernagore Government College in 2012. To date a total of 27 years of teaching experience including seven years of PG teaching experience while working as Associate Professor in Bethune College, Kolkata.

Awards and Research Grant:

- 1988** Awarded the University Research Fellowship for doctoral work in the Department of Zoology, University of Kalyani.
- 1996** Awarded the Postdoctoral Fellowship, Department of Biotechnology, Government of India during the Postdoctoral work at the Animal Physiology Department, Bose Institute, Kolkata. t the Master of Arts Examination, Jadavpur University, 2006.
- 2006** Grant received from the University Grants Commission, New Delhi for Minor Research Project to work on the Ant Behaviour Study in captivity.

Selected Publications:

- (2024)** Barui, Mampi, Mukherjee, Subadra, Das, Deep, **Banik Sarmistha** and Karmakar, Ranajit
Activity-rest time budget of isolated group of workers in captivity of an Indian ant species *compressus* (Hymenoptera: Formicidae; Formicinae). *Journal of Entomological Research*. DOI: 10.5958/0974-4576.2024.00118 (Open access).
- (2024)** Ram, Arti Kumari, Banerjee, Sruti, Chakraborti, Saurabh, **Banik, Sarmistha** and Karmakar Ranajit
A comparative hepatotoxic and genotoxic effects of an antifouling agent on three catfish *Clarias gariepinus*, *Clarias batrachus* and *Heteropneustes fossilis*. *Applied Ecology and Environmental Sciences* **12**: 7- 17 (Open access).
- (2023)** Sarkar, Ritika, **Banik, Sarmistha** and Karmakar, Ranajit
Lipid food preference and transportation using tools by an Indian ant species *Monomorium pharaonis* (Hymenoptera: Formicidae): A field study. *Sociobiology* **70**: e9167 (Open access).
- (2012):** Karmakar, Ranajit, **Banik, Sarmistha**, Biswas. Tanima, Bramhachary, Ratanlal and Sahu, Chttaranjan
A captive study on activity-rest, nesting and aggression behaviour of an Indian ant species *Polyrhachis lacteipennis* (Smith) (Hymenoptera: Formicidae: Foirmicinae). *Proceedings of Zoological Society* 2012; 65: 71-78.
- (2011):** **Banik, Sarmistha**, Biswas,_Sutopa, Karmakar, Ranajit and Bramhachary. Ratanlal
A comparative account of behaviour pattern in two Indian ant species in captivity. *Proceedings of Zoological Society* 2011; 64: 23-28.

- (2011): **Banik, Sarmistha**, Karmakar, Srijita., Karmakar, Ritwik. and Karmakar, Ranajit Study of behaviour of magpie robin (*Copsychus saularis* Linn.) in Indian subcontinent with special reference to the nest-box provided for nesting. In: *Biodiversity: Assessment and Awareness*. (ed in chief: S.K. Mukhopadhyay) Hooghly Mohsin College, Chinsurah, Hooghly, WB, India. pp.44-54.
- (2011): Karmakar, Ranajit., **Banik, Sarmistha**. and Bramhachary, Ratanlal
A survey of ant species in and around the village Susunia (hill), district Bankura, West Bengal, India (Insecta: Hymenoptera: Formicidae). In: *Biodiversity: Assessment and Awareness*. (ed in chief: S.K. Mukhopadhyay) Hooghly Mohsin College, Chinsurah, Hooghly, WB, India. pp.100-115.
- (2010): **Banik, Sarmistha**, Biswas, Sutopa., Karmakar, Ranajit. and Bramhachary Ratanlal
Necrophoresis in two Indian ant species, *Camponotus compressus* (Fabricius) and *Diacamma vagans* (Smith) (Insecta: Hymenoptera: Formicidae). *Proceedings of Zoological Society* 63: 87-91.
- (2009): Ghosh, Sayani, **Banik, Sarmistha**, Karmakar, Ranajit and Chatterjee, Malay
Promotion of chemically induced hepatocarcinogenesis by cadmium (Cd²⁺) : A correlation between antioxidant defense and chromosome aberration. *Perspective of Cytology and Genetics (India)* 2009; 14: 271-282.
- (2007): **Banik, Sarmistha.**, Karmakar, Ranajit., Biswas, Sutopa. and Bramhachary, Ratanlal.
Ant biodiversity and necrophoretic behavior. In: *Proceedings of International Biodiversity Conference: Issues and Concerns*, Indian Statistical Institute, Kolkata (India), November 21-23, 2007, p. 28.
- (2005): Karmakar, Ranajit and **Banik, Sarmistha**. Human Genome Project (1999-2003): A Prologue. *Recent Advances in Animal Science Research (India)* iv: (Galley proof).
- (2004): Karmakar, Ranajit., **Banik, Sarmistha.**, Bhattacharyya, Radha. and Chatterjee, Malay
Relationship of changes in renal drug metabolising enzymes and tissue architecture with the toxicity following cadmium administration. A time dependent study. *Recent Advances in Animal Science Research (India)* 3: 431-436.
- (2002): Karmakar, Ranajit., **Banik, Sarmistha** and Chatterjee, Malay
Inhibitory effect of vitamin D₃ on 3'-methyl-4-dimethyl-amino-azobenzene-induced rat hepatocarcinogenesis: A study of antioxidant defense enzymes. *Journal of Experimental Therapeutics and Oncology (USA)* 2: 193-199.

- (1998): Karmakar, Ranajit., **Banik, Sarmistha**, Bandyopadhaya, Subrata. and Chatterjee, Malay
 Cadmium induced alterations of hepatic and lipid peroxidation, reduced glutathione level and glutathione-S-transferase activity and its correlation with chromosomal aberrations in mice : a time course study. *Mutation Research (USA)* 397: 183-190.
- (1997): Bishayee, Anupam, **Banik Sarmistha**, Marimuthu, P. and Chatterjee, Malay
 Vanadium-mediated suppression of dimethylnitrosamine-induced chromosomal aberrations in rat bone marrow cells and its correlation with induction of hepatic glutathione-S-transferase. *International Journal of Oncology (USA)* 102: 413-423.
- (1996): **Banik, Sarmistha** and Khuda-Bukhsh, Anisur Rahaman
 Alterations of cytogenetical and haematological effects by the administration of ultra low doses of Ginseng in whole-body X-irradiated mice. *the nucleus (India)*39: 28-35.
- (1995): **Banik, Sarmistha** and Khuda-Bukhsh, Anisur Rahaman.
 Assessment of cytogenetical and haematological changes inflicted in lethally X-irradiated mice and their alterations by the oral administration of potentized homoeopathic drug, Arnica Montana. In: *Perspective in Cytology Congress (India)* 8: 203-217.
- (1994): Banerjee, Kishore Kumar, Bishayee, Anupam, **Banik, Sarmistha** and Chatterjee, Malay
 Hepatotoxicity of human placental extracts in rats. A biochemical evaluation. *Nihon University Journal of Medicine (Japan)* 36: 198-206.
- (1992): **Banik, Sarmistha** and Khuda-Bukhsh, Anisur Rahaman
 Quantitative assessment of sperm head anomaly in X-irradiated mice and alterations of frequency by oral administration of potentized homoeopathic drug, Ginseng. In: *Proceedings of Zoological Society (India)* 45 (suppl. A): 243-248.
- (1991): Khuda-Bukhsh, Anisur Rahaman and **Banik, Sarmistha**
 Assessment of cytogenetic damage in X-irradiated mice and its alterations by oral administration of potentized homoeopathic drug, Ginseng D-200. *The Berlin Journal Research in Homoeopathy (Germany)* 1: 254-263.
- (1991): Khuda-Bukhsh, Anisur Rahaman and **Banik, Sarmistha**.
 Oral administration of Arnica Montana reduces radiation-induced hair-loss and skin lesions in lethally irradiated mice. *Homoeopathy-the Modern Medicine (India)* 11: 131-132.

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Professional Memberships and Activities:

- Life Member of Zoological Society, Kolkata.