

SAMRAT SAHA

Ecological and Geographical Sciences Section
Environmental Science Division
Argonne National Laboratory

Education:

- Ph.D. Tennessee Technological University, Environmental Science
(Concentration: Biology), 2007
- M.S. Presidency College, University of Calcutta, India, Zoology
(Specialization: Fishery), 1998
- B.S. Presidency College, University of Calcutta, India, Biology
(Honors: Zoology; Additional: Botany and Physiology), 1996

Professional Experience:

- 2010-Pres. Postdoctoral Appointee, Environmental Science Division,
Argonne National Laboratory, Illinois

Responsible for evaluating flow metrics that govern environmental needs downstream of hydropower facilities. Area of expertise is in the development of an environmental performance assessment tool for regulated rivers that can be integrated with reservoir operation tools for optimizing ecological considerations and power production. The aim of this integrated model is to provide management options to hydropower operators, regulators, and resource managers for identifying pragmatic shifts in release pattern and temporal flow constraints to minimally compromise on power production while maximizing environmental benefits.

Summary of Previous Experience:

- 2008–2010 Research Technician, Vanderbilt University in Nashville, Tennessee
- 2007–2008 Adjunct Faculty, Biology, Cumberland University in Lebanon, Tennessee
- 2001–2007 Research Assistant, Tennessee Cooperative Fisheries Research Unit,
Tennessee Technological University in Cookeville, Tennessee

Research Interests:

Effect of flow regulation on stream ecology
Development of metrics to characterize impairment of stream community
Freshwater ecology and restoration

Professional Activities:

Development of abstracts, proposals, manuscripts, and reports
Data analyses and statistical modeling
Journal review and pertinent bibliographical compilation
Attend seminars, workshops, and present scientific findings to peers in professional meetings

Publications:

Author or co-author of 10+ journals, reports, and conference publications.