

JOYANTO ROUTH

Biträdande Professor and Head Vernadsky Section
Department of Thematic Studies – Environmental Change
Linköping University
581 83 Linköping
Tel: +(46)13282272; email: joyanto.routh@liu.se

EDUCATION

Ph.D. (Geochemistry) Texas A&M University, USA (1993-98)
Dissertation title: Characterization of organic matter in the Yegua Formation (Brazos County, Texas):
Relation to microbial processes and depositional environment.
Prof. Ethan Grossman and Dr. Thomas McDonald (supervisors)
MS (Geology) Eastern Washington University, USA (1991-93)
M.Sc. (Applied Geology) University of Roorkee, India (1988-90)
B.Sc. (Honours Geology) Rajasthan University, India (1986-88)

RESEARCH INTERESTS

Biogeochemistry, Climate change and adaptation, Environmental geochemistry, Organic Geochemistry,

My research focuses on paleoclimate reconstruction, monsoons and pollution issues. One of my key interests is application of biomarkers in environmental research. Current projects focus on some of these issues in Nepal (carbon flux in mountain streams), Iran (climate-culture links in Bronze Age settlements), India (monsoon reconstruction in speleothems and lake sediments; arsenic problem in aquifers), and Lake Victoria (soot, eutrophication and Holocene climate reconstruction).

I have a keen interest of working with researchers from developing countries. Over the years, I have built an active research network with scientists from India, South Africa, Tanzania, Sri Lanka, Iran, China, Kenya, France, UK, USA, and Germany. This has resulted in multiple exchange visits from researchers including PhD and MSc students from different institutions, joint field-work, writing project applications, and many joint publications.

PROFESSIONAL EXPERIENCE

2018- Biträdande Professor, Linköping University
2011-18. Senior Universitetslektor (Associate Professor), Linköping University
2010-11. Forskare, Örebro University
2009-2011. Associate Professor, IISER-Kolkata (India)
2000-2009. Stockholm University
Forskare, Docent in Biogeochemistry (October 2004)
Forskarassistent in Biogeochemistry (2000-2004)
1998-2000. Geoscientist, Schlumberger-Geoquest, Houston (USA)
1998. Geochemist, ARCO, Plano, Texas (USA)
1993-1998. Research/Teaching Assistant, Texas A&M University, College Station (USA)
1991-1993. Teaching Assistant, Eastern Washington University, Cheney (USA)

RESEARCH GRANTS

Funded by various Swedish and international agencies since 2001 (VR, SIDA, Formas, Knut och Alice Wallenberg, EU, Swedish Institute, SWECO, Texas Advanced Resch Program).

PUBLICATIONS

68 peer-reviewed papers published, in review (3), in preparation (4), >70 abstracts

SELECTED PUBLICATIONS (last 3 years)

Huguet, C., **Routh, J.**, Fietz, S., Lone, M.A., Kalpana, M.S., Ghosh, P., Mangini, A.M., Kumar, V., and Rangarajan, R. (2018) Temperature and monsoon tango in a tropical stalagmite: Last glacial-interglacial climate dynamics *Nature Scientific Reports* DOI: 10.1038/s41598-018-23606-w.

- K. Gurjarkaite, **J. Routh**, M. Djamali, A. Vaezi, Y. Pohat, M. Naderi Beni, V. Tavakohli and H. Kylin. (2018). Vegetation history and human-environment interactions through the late Holocene in Konar Sandal, SE Iran. *Quaternary Science Reviews* 194, 143-155.
- Baker, A, Pedentchouk, N., **Routh, J.**, Roychoudhury, A.N. (2017). Climatic variability in Mfabeni peatlands (South Africa) since the late Pleistocene. *Quaternary Science Reviews* 160, 57-66.
- Gayantha K, **Routh, J.**, Chandrajith, R. (2017). A multi-proxy reconstruction of the late Holocene climate evolution in Lake Bolgoda, Sri Lanka. *Palaeogeography, Palaeoclimatology, Palaeoecology* 473, 16-25.
- Routh, J.**, Bianchi, T., Hutchings, J., Kuhry, P., Ranjan, R.K. (2016) Organic carbon characteristics in Swedish forest soils trace post-depositional carbon dynamics. *European J of Soil Science* 62, 492-503.
- Baskar, S., **Routh, J.**, Baskar, R., Kumar, A., Miettinen, H., Itävaara M. (2016) Evidences of microbial precipitation of calcite in speleothems from Krem Syndai in Jaintia Hills, Meghalaya, India. *Geomicrobiology Journal* 33, 906-933.

SUPERVISION (ongoing)

PhD: 2 (main supervisor: Dennis Njagi, Andrew Minu), 3 (co-supervisor: Kasun Gayantha, Rajendra Bhandari, Kousik Das)
 MSc: 2 (Chen Luo, Ionnis Arnis)

Degrees finished up to 2018:

PhD main supervisor: 5 students (Devanita Ghosh, Andrea Baker, Preetam Choudhary, Rajesh Ranjan, Supriyo Das)

PhD co-supervisor: 2 students (Gustaf Hugelius, Johanna Borgendahl)

Licentiat (2 main supervisor: Supriyo Das, Aparajita Bhattacharya) (1 co-supervisor: Gustaf Hugelius)

MSc thesis: 5

BSc/Examensarbete thesis (20+ students)

Post-doctoral researchers (5):

Dr. Dativa Shilla (2014-15, Tanzania), Dr. Kalpana Singhamshetty (2012-13, India), Dr. Supriyo Das (2009, Sweden), Dr. Sushmitha Baskar (2009-10; India), and Dr. Ambujum Saraswathy (2001-02, Japan/India).

TEACHING

Teaching PhD, MSc and undergraduate courses in USA (Eastern Washington Univ, Texas A&M Univ, Sweden (Stockholm Univ, Linköping Univ), and India (IISER-K) since 1993.

Graduate and undergraduate courses in: Climate Change and Policy, Environmental Science, Biogeochemical Cycles, Environmental geochemistry, Organic geochemistry, Hydrology, and Introductory Geology, Environmental Sciences

REVIEWER

Associate Editor: Applied Geochemistry (Elsevier) 2011- present

Associate Editor: Current Pollution Reports (Springer) 2015- present

Associate Editor: Groundwater for Sustainable Development (Elsevier) 2015- present

Journals: Environmental Science & Technology, Geology, Chemical Geology, Geophysical Research Letters, Applied Geochemistry, Organic Geochemistry, Quaternary Science Reviews, Marine and Freshwater Research, Science of Total Environment, Hydrobiologia, G3, P3, Quaternary International, Environmental Monitoring and Assessment, Environmental Contamination and Toxicology, Journal Asian Earth Science, Journal of Hazardous Material

Project Grants

Norwegian Research Council, IFS, NRC - Panel Member