

Sarah Lynch

Doctoral Researcher

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About

Title of PhD: Establishing the Environmental Risk of Metal Mining Contaminated River Bank Sediments

Supervisors: [Dr Lesley Batty \(/staff/profiles/gees/batty-lesley.aspx\)](/staff/profiles/gees/batty-lesley.aspx) and Dr Patrick Byrne (LJMU) (</staff/profiles/gees/bartlett-rebecca.aspx>)

Research of biogeochemical changes that occur in river bank sediments subjected to changing flood/drought conditions (as predicted due to climate change) to understand these effects on the release of contaminant trace metals lead and zinc.

A series of mesocosm experiments were run using contaminated river bank sediment, (Afon Ystwyth, Wales, UK). Laboratory analysis has focused on the speciation of sulphur and iron and manganese in the pore water and sediment in response to changes in redox potential and drying to determine the geochemical processes that control the mobility of contaminant trace metals lead and zinc.

Qualifications

- BSc (Hons) Biological Sciences (Microbiology)
- MSci Pollution and Environmental Control

Biography

Please see <https://www.linkedin.com/pub/sarah-lynch/3b/842/a85> (<https://www.linkedin.com/pub/sarah-lynch/3b/842/a85>)

Research

Research group

Water Sciences

Other activities

- Group Secretary for the West Midlands and North West England Freshwater Group
- Publicity officer for the London Freshwater Group. I also run the website www.londonfreshwatergroup.co.uk (<http://www.londonfreshwatergroup.co.uk>)

Publications

Lynch, S.F.L.; Batty, L.C.; Byrne, P. (2014) Environmental Risk of Metal Mining Contaminated River Bank Sediment at Redox-Transitional Zones. *Minerals*, 4, 52-73.

Dean A.P.; **Lynch, S.**; Rowland, P.; Toft, B.D.; Pittman, J.K.; White, K.N. (2013) Natural Wetlands Are Efficient at Providing Long-Term Metal Remediation of Freshwater Systems Polluted by Acid Mine Drainage. *Environ. Sci. Technol.*, 47 (21), 12029–12036.

Articles

Lynch, S. (2013) Aquatic Environmental Risk of Metal Contaminated River Bank Sediment at Redox-Transitional Zones, *FBA News*