

INSTITUTE:

Institute of Technology, Sligo

RESEARCH AREA:

Invasive Species and Environmental Public Health

Dr Frances Lucy: Environmental monitoring of Cryptosporidium and aquatic invasive species

Excellent Researchers
Delivering Impact

Freshwater Biology



Institutes of Technology Ireland

Dr. Frances Lucy is a full-time staff member and long-term researcher at the Institute of Technology, Sligo. There are two major strands to her research activities. The first focuses on environmental monitoring of Cryptosporidium, a human pathogen, in Irish surface waters and in waste water treatment plants. Secondly, she is an expert researcher on aquatic invasive species which continue to threaten our natural biodiversity and ecological communities.

Her early, highly regarded research on zebra mussels led to work on similar invasive species in many watercourses and also facilitated international collaborations through projects, conferences, publications and journal management.

While acting as a lecturer and Principle Investigator for a three-year Environmental Protection Agency (EPA) project on Zebra Mussels in Lough Key (2000-2003), Frances pursued and completed a PhD. During this period, she initiated successful international networking links with John Hopkins Bloomberg School of Public Health, USA.

This in turn led to the development of a new research programme using zebra mussels as bio-indicators of Cryptosporidium and other human pathogens in Irish waters. Since Cryptosporidium is a topical public health problem, further EPA support funded her PhD student, Angel Cheng, to trace pathogens through wastewater treatment plants using



Dr Frances Lucy, CERIS, IT Sligo

related technologies. Frances was also a research partner on a UCD led EPA STRIVE project on 'Cryptosporidiosis: human, animal, and environmental interface'. Results of these projects will be instrumental in developing policy in the public health arena. She is considered a national expert in this research field and has many relevant publications. ➔

Dr. Frances Lucy | www.itsligo.ie

CERIS

Institute of Technology, Sligo
Ash Lane, Sligo, Ireland.

T: +353 (0)71 93 05693

E: lucy.frances@itsligo.ie



→ Frances has also developed an aquatic invasive species management programme at IT Sligo. This builds on her own research and, more recently, on that of two PhD students supported by the IT Sligo President's Bursary Award scheme. Sara Meehan's PhD involves working on zebra mussel control and her research is co-funded by Marrone Bio Innovations, USA. Rory Sheehan's PhD is on the Asian clam, co-funded by Inland Fisheries Ireland and Waterways Ireland. These students also assist undergraduate students on invasive species projects.

Frances was a founder Board Member of Inland Fisheries Ireland (2010-2013). She is editor-in-chief of two open access journals on Invasive species (www.reabic.net) and has published with many international experts.

She is a national representative for Ireland for EU COST action on Invasive Species Networks (TD1209), managing short term scientific missions and other core activities for the project. This COST Action is a pan-European foresight think-tank to address future co-ordination and research activities in this critical research area.

Since September 2013, she has directed the new Centre for Environmental Research Innovation and Sustainability (CERIS) at IT Sligo. As Director, Frances provides management, support and direction for environmental research in the institute. ■

TESTIMONIAL

Dr. Frances Lucy

*Institute of Technology,
Sligo*

"I acknowledge IT Sligo for supporting my research through the President's Bursary Postgraduate Fund. The new Centre for Environmental Research Innovation and Sustainability will be hugely beneficial to all the researchers involved."



Dr. Frances Lucy

**CENTRE FOR ENVIRONMENTAL RESEARCH,
INNOVATION & SUSTAINABILITY (CERIS)**

Institute of Technology, Sligo

Ash Lane, Sligo, Ireland

T: +353 (0)71 93 05693

E: lucy.frances@itsligo.ie