

ESAI Postgraduate Researcher of the Year 2019 – Molly Ann Williams

Molly-Ann Williams is a third year PhD student currently studying under the supervision of Prof. Anne Parle-McDermott and Prof. Fiona Regan at Dublin City University. She has a first class BSc honours degree in Biological Sciences from the University of Warwick and an MSc in Forensic Science from King's College London. As part of her studies, Molly-Ann has always shown an interest in environmental sciences; completing her undergraduate research project in Marine Microbiology, working as an Eco-Warwicker Technician looking at conservation of bats and completing her masters project in the study of microplastics in Irish rivers. Her research now combines her passions for DNA and conservation through the study of environmental DNA. Molly-Ann's research tackles eDNA detection from a different perspective, using an isothermal approach to DNA amplification instead of the conventional PCR. During her PhD, she has developed a novel, alternative method of eDNA detection by combining isothermal amplification of DNA with CRISPR-Cas detection. The developed methodology has been shown to enable single species detection of Atlantic salmon (*Salmo salar*) from the Burrishoole Catchment, Co. Mayo and was published as a From the Cover article in *Molecular Ecology Resources* in 2019. Molly-Ann thrives to share her passion for science through teaching on the CTYI program, organising outreach activities whilst chair of the Biological Research Society and presenting at international conferences.