

Summer Undergraduate Research Programme 2021

Project Number & Title:	<p>Project 1 The effects of agricultural management on soils and micro-plastic distribution.</p>
Project Details	<p>Research Centre/Group Centre for Freshwater and Environmental Studies</p> <p>Project Objectives The objectives of this study are to;</p> <ol style="list-style-type: none"> 1. Analyse agricultural soil samples for the presence of heavy metals and microplastics. 2. Quantify the presence of soil biota in soil cores. 3. Determine the uptake of microplastics in selected biota. <p>Overview</p> <ul style="list-style-type: none"> • Soil sample cores will be collected from a tillage farm, where microplastics are present. • Soil samples will be sectioned at 1cm intervals and analysed for the presence of microplastics. • Soil biota will be removed from the samples and analysed for the presence of microplastics. The frequency of ingestion per species will be calculated for each type of microplastic categorised. • In addition to microplastic analysis, soil structure and possible pollutants will be analysed in an attempt to determine the effect of microplastics on soil structure and pollutant dynamics in the specific soils.
Profile of Candidate	<p>The undergraduate student will have a strong background in agriculture and environmental science.</p>

Project Supervisors	<p>Supervisory Team</p> <p>This project will be supervised by Dr. Siobhán Jordan. The undergraduate student will also be part of a larger research team looking at the persistence of microplastics in agriculture, which includes Clodagh King (postgraduate student), Dr. Caroline Gilleran-Stephens and Dr. Joe Lynch.</p> <p>All enquiries to Siobhan.jordan@dkit.ie</p>
Duration	6 weeks
Number of Positions Available	1
Amount Awarded (per candidate)	Weekly stipend of €150 (tax free)
How to Apply	<p>Each applicant should submit the following documents by email to mary.matthews@dkit.ie:</p> <ul style="list-style-type: none"> • CV including academic transcripts • A 300 word statement as to why you are a suitable candidate for this project. <p>Please state clearly in the subject line of your covering email the abstract title and project reference number.</p> <p><i>An applicant may apply for more than one programme, but each application must be made separately.</i></p>