

### **Spring 2023**













## **News and Updates**

Recruitment of the final cohort of students is now almost complete. We are delighted that 14 applicants have accepted their positions and work is ongoing to fill the final place. We look forward to sharing more updates on the students and their projects in the next newsletter.

With support ECORISC students, our first Virtual Conference took place on Monday 22nd and Tuesday 23rd May. The event saw talks from our guest speakers, Dr George McGavin and Professor Bethanie Carney Almroth, presentations from ECORISC partners around placements and of course our students, who each gave a presentation. Many thanks to all who contributed!

Many of our student traveled to Dublin to take part in the 33rd Annual SETAC Meeting. We will hopefully have an update on their experience in the next newsletter.

# **Year 2 Training**

Our first cohort of students have now completed their second year of ECORISC training. This saw them choose 2 modules, building on the knowledge gained in the first year. Modules include:

**Environment Exposure Assessment** - run by Professor Colin Brown (University of York), this module provides students with the principles and practice for estimating exposure to chemicals in the environment, covering both theoretical and practical aspects on how to develop and evaluate mathematical models to estimate exposure.

**In-silico and in-vitro approaches in ecotoxicology** - run by Professor Peter Kille (Cardiff University) this module uses Next Generation Sequencing (NGS) to introduce students to biocomputing techniques that can be used to process, visualise and analyse data.

Chemical Effects on Populations, Communities and Ecosystem Service Delivery - run by colleagues from the School of Biosciences at the University of Sheffield and Cardiff University this module provides students with the skills and understanding on the effects of chemical stressors on populations, communities and ecosystems.

**Landscape-scale risk assessment for ecosystem and human health** - run by colleagues from the UK Centre for Ecology and Hydrology students are provided with an Introduction to the use of spatial data for exposure and effect assessment in environmental studies of chemical pollution.



## **Student News and Updates**

The snapshot below gives you an summary of some of the activities the ECORISC students have been involved in:

#### Conferences and workshops

- <u>Lowenna Jones</u> (year 2, Sheffield) attended the UK Future Earth ECR workshop on Systems
   Transformation at the Royal Society in London on the 28th March. This was supported by her involvement with the Grantham Centre for Sustainable Futures
- Georgie Savage (year 1, Exeter) joined <u>EcounterEdu</u> and Jamie Buchanan-Dunlop for the International Women and Girls in Science event 'Women on the Frontiers of Climate Science'.
- Rachel Haw (year 1, Sheffield) presented her Masters work (pollinator visitation under drought) at the British Ecology Society conference in Edinburgh in December
- Charlotte Robison-Smith (year 2, Cardiff)
  - has presented at two internal Cardiff conferences: Plastics Network Interdisciplinary Group and the Water Research Institutes Sustainable Plastics event
  - has secured a travel grant to present at the <u>FSBI Annual Symposium</u> Fish habitat ecology in a changing climate in July 2023
- Eve Tarring (year 2, Cardiff) presented
  - at the Cardiff University multidisciplinary plastics conference on water-soluble polymer detection and fate in freshwater
  - at the nano academics-regulator meeting at the University of Birmingham on water-soluble polymer fate, detection and regulation
  - a poster at a Cardiff University-Welsh Water conference about routes of water-soluble polymer entry to freshwater

#### **Placements**

- Lowenna Jones (year 2, Sheffield) is currently undertaking a secondment at Defra. Her role is within the Evidence Team of the Chemicals, Pesticide and Hazardous Waste (CPHW) unit.
- **Eve Tarring** (year 2, Cardiff) completed a two month placement at Ricardo Energy and Environment consultancy as an environmental chemistry/ecotoxicology consultant, partly based in Bristol

#### **Field Work**



#### <u>Charlotte Robison-Smith</u> (year 2, Cardiff)

- is participating in a large scale European Rivers Monitoring Project led by the University of York, where alongside Eve Tarring, contributing seasonal river samples to the project.
- assisted in fish release with the Ogmore Angling society, tagging, photographing and releasing fish into local rivers, continuing to network with the angling community in South Wales
- Nicholas Porter (year 1, Cardiff) -
  - is currently in Sabah, Borneo at the <u>Danau Girang Field</u>
     <u>Centre</u> collecting a range of samples to identify hotspots and exposure pathways for chemical contamination in oil palm plantations and surrounding forests.
- whilst in Sabah Nick has also worked with the Sabah Wildlife Department officials and various stakeholders, including local farmers

#### **Podcasts**

<u>Georgie Savage</u> - has recorded a podcast with the Royal Geographical Society about her GCRF funded international and multidisciplinary project 'Pacific Plastics: Science to Solutions' where the the sources, impacts and solutions to plastic pollution and its associated chemicals in the Eastern Pacific are investigated. Listen to the podcast on <u>Spotify</u> or on RGS channel '<u>Ask the Geographer</u>'.



### **Events**

#### 2022 Cohort - Induction - Brathay Trust, Cumbria - By Nick Porter

In December 2022 cohort 2 travelled to a very frosty but beautiful Brathay, where the cohort were able to meet and chat to peers face-to-face after having previously only seen each other online.

The first evening consisted of dinner followed by a team building activity. The challenge was to build the tallest possible structure from spaghetti and



marshmallows which proved to be a lot trickier (and stickier!) than it first seemed. Despite the varying levels of success amongst the pairs, the task was successful in breaking the ice.

The second day kicked off with project presentations from each member of the cohort, during which students were tasked with identifying any links between projects. It was a great opportunity for people to explain their projects in greater depth and a surprising number of links were found.



Following lunch and a master class in photography from Professor Charles Tyler, the cohort were let loose around Grasmere to take the best wildlife photos. This was a welcome chance to explore some of the local landscape, gently strolling around a lake nestled between striking hills and crags. After a quick trip to the local gingerbread shop, students returned to Brathay and presented their photos for brutally honest feedback from Charles.

Thursday began with a discussion about the linkages between projects that had been identified the day before. This highlighted the support that students could offer one another and, in many cases, the chance for collaboration.



This was followed by some extremely valuable and and eye-opening sessions around scientific integrity, communication, and stakeholder engagement. These sessions gave the opportunity to discuss relevant and often overlooked issues in science and highlighted the need for self-reflection, inclusivity, and empathy.

The day concluded with another challenge where, in groups of three, students replicated Lego models. Each member of the group had very specific and limited role meaning teamwork was essential.

The final morning felt as though it had come too soon and after a short session to reflect and give feedback on our ECORISC experience, students said goodbye and headed home.

Overall, the event was an extremely enjoyable experience. Getting to finally meet everyone in person added a real depth to the bonds that had already formed. Discussions about journeys so far, sharing successes and realising that we are not alone in our setbacks or worries. We now know each other on a more personal level strengthening our relationships, not only as colleagues, but also as friends.

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