

ESAI ANNUAL REVIEW 2022

ESAI Chairpersons Address from Liam McCarton



2022 was a busy year for the Environmental Sciences Association of Ireland (ESAI). This end of year report summarises some of the key events and activities throughout the year.

Environ 2022: The highlight of the year was our Environmental Researchers Colloquium (Environ). The 2022 Environ conference was hosted in collaboration between the ESAI and Ulster University in their impressive new state of the art Belfast city centre campus. This was our first in person conference since the Covid19 pandemic. This Environ focused on the theme of "Unlocking Sustainability". The event took place from the 20th – 22nd

June 2022. Environ 2022 commenced on the afternoon of Monday 20th June with a series of interactive workshops and field trips.

A public event on Monday evening focused on "Ireland towards the Net Zero Challenge". The aim of this public event was to foster an awareness of the links between green politics, net-zero energy technologies and biodiversity in Ireland.



Environ was then formally opened on Tuesday 21st with an opening address by Prof Paul Seawright, Deputy Vice Chancellor of Ulster University, Tim Brundle, Directory of Research & Impact at Ulster University, Liam McCarton Chairperson of the ESAI, and Prof. Jane Stout of Trinity College Dublin. The plenary lecture on Tuesday was delivered by Prof. Jane Stout who focused on "Climate Change and Biodiversity in Ireland". The plenary lecture on Wednesday was delivered by Prof. Neill Hewitt who presented on "Emerging Technologies towards Net Zero". Several events took place over the two days, including a variety of oral and poster presentations, plenary speakers and social evenings. This year we also had two "Flash Presentation" sessions on Wednesday which were designed to be rapid dynamic sessions offering poster presenters an opportunity to bring their research to life. Environ culminated on Wednesday 22nd with our prizegiving ceremony.

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On behalf of all the team at ESAI we would like to acknowledge and sincerely thank Environ 2022 conference co-convenors Dr Pilar Fernandez-Ibanez, Prof. Tony Byrne and all the Ulster University team for hosting Environ and for assembling a very comprehensive programme. We also wish to thank Ms Sinead Macken for providing excellent administrative support to the event as always.



ESAI Prizegiving

The quality of research presented at Environ 2022 was exceptional with 83 oral presentations, 44 poster presentations, 127 abstracts and 175 delegates over the three days. The fact that the vast majority were delivered by young scientists and engineers bodes well for the future of environmental sciences in Ireland. Congratulations to all the winners in the ESAI Environ Student Presentation competition which featured nine awards this year. Special mention to Wahaj Habib, TCD who won the ESAI best oral presentation for his work entitled "Mapping vegetation communities on Irish raised bogs using PlanetScope imagery and Google Earth Engine" and Laura McDaid, ATU Donegal for her work on "Irish Faba Beans as a sustainable food source".



2022 Nominees to the ESAI Honours List

The 2022 ESAI honours list acknowledged the contribution of two members, Prof Emeritus John Breen and Prof Emeritus Richard Moles both formerly of University of Limerick. This was to acknowledge the joint contribution of both members who contributed greatly to the success of both the ESAI, Environ and indeed have been at the forefront of environmental research, debate and policy in Ireland for over 30 years.



ESAI 2022 nominees to the honours list, Prof Emeritus John Breen and Prof Emeritus Richard Moles

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ESAI Researcher Awards

At the heart of great science lies a creative and moral instinct to explore and to question in order to create a better world. ESAI continue to recognise the excellence of young researchers in this regard at both undergraduate and postgraduate level. Larissa Macedo Cruz de Oliveira from University College Cork (UCC) is the winner of the prestigious ESAI Postgraduate Researcher of the Year Award 2022. Larissa's research focused on advancing seabed mapping techniques for deep-water habitat classification in submarine canyons and cold-water coral habitats (ASMAT). Cold-water coral (CWC) reefs are complex structural habitats that represent one of the most important deep marine ecosystems. This research explored computer vision techniques to further understand CWC habitats in marine protected areas. This year the ESAI has decided to acknowledge the extremely high standard of competition by acknowledging a second researcher who was of exceptional standard but just missed out on the overall prize. Postgraduate Researcher of the Year Highly Commended 2022 is Elena Zioga, a researcher based in Trinity College Dublin (TCD). Her novel research is focused on characterising pesticide residues in floral resources for bees.

ESAI HEI Undergraduate of the Year Award 2021/2022

ESAI and our sponsors continue to recognise the excellence of young researchers through our Undergraduate of the Year Awards. This was the 6th year of the competition with 13 nominations from 11 colleges.

The 2020/2021 Winners were: Eunice Wong (Level 8, MTU Cork), Sean Og Quinn (Level 7, MTU Cork), Emma Stempel (Level 8, ATU Galway), Harry Reynolds (Level 8, ATU Sligo), Helen Burke (Level 8, DCU), Finbar McCann (Level 8, NUI Galway), Thomas Peters (Level 8, TUS Thurles), Erin Driscoll (Level 8, UCC), Grace Donald (Level 8, UCD), Jessy Fong (Level 8, SETU Waterford), Roisin Gowen (Level 8, TCD), Shane O'Neill (Level 8, SETU Carlow), Magdalena Ciuchta (Level 7, SETU Carlow).



ESAI Undergraduate of the Year Winners

Postgraduate Research Network

2022 saw the launch of our young postgraduate research network. One of the initiatives suggested by this forum was to create a newsletter to showcase the work of different researchers. The first inaugural newsletter was launched in May 2022 highlighting the inspiring research currently being carried out by 8 of our early-stage researchers including UCC's Irene O Callaghan, who had just being named ESAI Postgraduate Researcher of the Year 2021. We welcome all interested researchers to participate in this forum.

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EPA funded Grassroots Award Scheme

The grassroots award, sponsored by the Environmental Protection Agency (EPA), has funded a total of eight successful workshops since 2015. The ESAI are delighted to announce that the EPA have announced that they are to support another four workshops under this scheme. Special thanks to the EPA for their continued support. Details of the scheme can be accessed on our website www.esaiweb.org. You can also access videos from previous winners Daiti Kelleghan and Melanie O'Driscoll detailing how important this scheme was to their research careers.

ESAI Communications

ESAI members are the core of the organisation, and the communications team is lead by Dr. John Gallagher, TCD. We welcome your input and participation through our social media channels whether through our Listserver, LinkedIn, Facebook, Twitter or by subscribing to our Newsletters. At the end of 2022 the ESAI had 802 members, comprising of 170 full members and 632 student members.


Social media reach has increased on social media platforms during 2022 with increases of 3.0% (+282) LinkedIn connections, 4.2% (+137) Twitter followers, and 5.3% (+128) Facebook friends. A reduction in listserver subscribers, with a drop of 8.6% (-155) receiving emails. In 2022, the Comms Team continues to review ways to streamline communications. We have not implemented any changes this year, as we want to ensure best value before website evolution.

ESAI Council Meetings and AGM

The ESAI held a total of 3 council meetings during 2022. The AGM was convened to coincide with Environ 2022 and was held on the 21st June 2022. Prof Tasman Crowe UCD and Prof Anne Morrissey DCU stepped down with nobody new joining. Postgrad of Year 2021 Irene O'Callaghan joined us to give a short presentation on her research.

The Council wish to sincerely thank ESAI administrator, Sinead Macken, for her excellent work, dedication and support over the past year with all our diverse activities.

On a personal level, as I step down from my position as chair of the ESAI I would also like to acknowledge the passion, professionalism and commitment of the entire ESAI council during the past few years. I would like to wish the incoming chair, Niamh Power from Munster Technological University success in the role.



Liam McCarton, ESAI Chairperson

Liam is a member of the Development Technology with the Community (DTC) Research Group at TU Dublin and Director of Engineers Without Borders Ireland.

Making the most of your membership

Benefits of Membership

By becoming a member of ESAI, you will also have access to:

- Discounted rates at Environ, the annual Irish Environmental Researchers Colloquium, one of the major activities of the Association. It is now one of the largest national scientific meetings in Ireland attracting over 300 delegates each year.
- Discounted rates for selected workshops, seminars, further education courses and conferences.
- Access to ESAI listserver
- Eligibility to apply for ESAI Postgraduate Researcher of the Year Award
- Eligibility to apply for ESAI Undergraduate Researcher of the Year Award
- Eligibility to apply for ESAI Grassroots Workshop Funding
- Learn from others and absorb best practice
- Raise the profile of you and your business
- Stimulate new business opportunities
- Innovate and commercialise new products and services
- Members of ESAI will receive free-of-charge E-Newsletters, Environews.
- Sponsorship opportunities

Handy Links For Staying Informed

- Find out more about ESAI Goals and Objectives
<https://www.esaiweb.org/home/about-us/>
- Keeping in touch with the ESAI
<https://www.esaiweb.org/stay-connected/>
- Further information on ESAI Code of Ethics and Constitution
<https://www.esaiweb.org/home/our-policies/>

2022 Events

Date	Event
February 28th	ESAI Grassroots Workshop Support Scheme Sponsored by EPA – Rolling Call
April 4th	ESAI Environews Spring Edition available
April 30th	ESAI Grassroots Workshop Support Scheme Sponsored by EPA – Rolling Call
May 25th	ESAI Environews First Postgraduate Research Edition available
June	ESAI Undergraduate of Year Awards 2021/2022 Review with HEI's commences
May 25th	ESAI Environews First Postgraduate Research Edition available
June 20th – 22nd	Environ 2022 – 32nd Annual Irish Environmental Researchers Colloquium Ulster University, Belfast
June 21st	ESAI AGM 2022 (held in conjunction with Environ 2022) All members welcome
June 21st	Announcement of ESAI Honorary Members 2022 Environ 2023 Conference Dinner, Prof Richard Moles UL and Prof John Breen, UL
June 30th	ESAI Grassroots Workshop Support Scheme Sponsored by EPA – Rolling Call
August 31st	ESAI Grassroots Workshop Support Scheme Sponsored by EPA – Rolling Call
September 30th	Undergraduate Membership Offer Free Membership for all Undergraduate Members Scheme Rolled Out
October 31st	ESAI Grassroots Workshop Support Scheme Sponsored by EPA – Rolling Call
November 3rd	ESAI HEI nominated Undergraduate of Year 2021/22 Announcements and presentation of certificates (by post!)
December 31st	ESAI Grassroots Workshop Support Scheme Sponsored by EPA – Rolling Call
December 31st	ESAI Postgraduate Researcher of Year Award Closing date for applications

ESAI INCOME AND EXPENDITURE ACCOUNT 2022

ESAI Income and Expenditure Account	€	€
For the year ended 1 January 2022		22,408
Opening balance as 01/01/21		
Income	€	€
Membership	2,215	
Ew\$2022	5,432	
Environ 2022 – Delegate Fee	24,697	
Environ 2022 - Sponsorship	20,895	
Environ 2021 – Delegate Fee	1,770	
Environ 2021 - Sponsorship	1,500	
Environ 2019 - Sponsorship	500	
Environ Prizes	1,500	
Write off - Reverse	2	
Total Income	58,011	
Expenditure	€	€
Environ 2022	33,683	
Prizes	2,750	
Website Maintenance	2,059	
Administration	7,056	
Bank Charges	105	
Merchant Banking	1,062	
Postage/Stationary	122	
Postgraduate of Year Prize	500	
Grassroots	427	
Other	460	
Ew\$2022	5,255	
Total Expenditure	53,477	
Excess Income over Expenditure		4,533
Closing Balance @ 31/12/22		26,941

End of Year accounts are overseen and approved by external accountant

ESAI Council Members 2023

Chairperson	Mr Liam McCarton	chairperson@esaiweb.org
Vice Chair	Dr Niamh Power	
Honorary Secretary	Mr Philip Shine	secretary@esaiweb.org
Honorary Treasurer	Dr Niamh Power	treasurer@esaiweb.org
Communications Officer	Dr John Gallagher	communications@esaiweb.org
Editor	Ms Caroline Wynne	c.wynne@epa.ie
Conference Coordinator 2022	Dr Pilar Fernandez Ibanez	conference@esaiweb.org
Conference Coordinator 2023	Dr Denis McCrudden	ATU Donegal
Regular Members	Prof Frances Lucy – IT Sligo Dr Tom Curran - UCD Dr Thomae Kakouli-Duarte – IT Carlow Dr Dorothy Stewart - EPA Dr Jean Dwyer - UCC	
Postgraduate Representative	Sean O'Connor	ATU Sligo
Membership Officer	c/o Ms Sinead Macken - Administrator	administrator@esaiweb.org