



ESAI ANNUAL REVIEW 2020

ESAI Chairpersons Address from Liam McCarton



2020 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 2020: The highlight of the year was our Environmental Researchers Colloquium (Environ). The 2020 Environ conference, hosted in collaboration between the ESAI and the Water Institute at DCU, was originally planned for April 27th-29th. Due to the COVID19 restrictions this was rescheduled to take place "virtually" in October 2020. The 2020 Environ was hosted online by the Water Institute at Dublin City University (DCU), (20TH – 22ND October 2020). The 300 attendees had the opportunity to choose from 17 oral presentation sessions and six poster sessions over the three days of the colloquium, covering topics from Climate Change, to Ecotoxicology to Water Resources all contributing to the theme of the colloquium, Ireland's Water, Energy & Environment in a Climate and Biodiversity Emergency. In addition to the parallel sessions, delegates could attend a plenary session each day. The first plenary session on Tuesday included a welcome address from the Director of DCU's Water Institute, Professor Fiona Regan, the Chairperson of the ESAI, Dr. Liam McCarton, and from The President of Dublin City University, Professor Daire Keogh, who formally opened the colloquium. The keynote address was delivered by Mr. Gilles Gantelet of the EU's DG Environment who spoke about the EU's Green Deal and what this means for Irish researchers among other things.

Overall, 70 oral and 80 poster presentations were delivered, and the quality of research presented was exceptional. The fact that the vast majority were delivered by young scientists and engineers bodes well for the future of environmental sciences in Ireland. On behalf of all the team at ESAI we would like to acknowledge and thank DCU Water Institute Environ team of Prof Anne Morrissey, Dr James Carton, Dr Jenny Lawler, with special mention to Caoimhe O'Broin in DCU for all her assistance to the team. Congratulations to all the winners in the ESAI Environ Student Presentation competition which featured nine awards this year with a special mention to Merissa Cullen, NUI Maynooth and Tristan Nolan, UCD, winner of the best oral presentation and best poster presentation respectively at Environ 2020.

30 years of Environ : We also celebrated 30 years of Environ in 2020. As part of our 30 years celebrations we announced our first honours list. This is to acknowledge those who have contributed greatly to the success of ESAI and Environ and indeed have been at the forefront of environmental research, debate and policy in Ireland for over 30 years. These include; Dr Mary Brennan, Prof Mark Costello, Dr Debbie Chapman, Mr Michael Ewing, Emeritus Prof Brid Quilty, Dr Micheál O'Cinnéide, Dr Shirley Gallagher, Dr Billy Fitzgerald. All will be offered lifelong membership. An event was held on World Earth Day (22nd April 2021) to honour those awardees. The evening featured videos and discussion. Special thanks to Niamh Power for videos, Frances Lucy for compering and Sinead Macken for organising.

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.

Postgraduate Researcher of the Year Award: Sean O'Connor from the Institute of Technology Sligo is the 2020 winner of the prestigious ESAI Postgraduate Researcher of the Year Award. Sean's research is focused on developing small scale anaerobic digestion (SSAD) for the treatment of biomass and organic waste. This research was carried out under an EU INTERREG funded Renewable Engine project with collaboration from an industry partner (Organic Power). Sean's supervisor is Dr. John Bartlett.



This year the ESAI has decided to acknowledge the extremely high standard of competition by acknowledging two entries who were of exceptional standard but just missed out on the overall prize.



Postgraduate Researcher of the Year 2020 Runner Up: Kate Mahony is a researcher based in University College Cork. Her novel research is focused on working with an "ecosystem engineer", the common cockle *Cerastoderma edule*. Kate developed a holistic approach to study past and present conditions of cockles, in order to inform future sustainable management of this important resource. Kate's supervisors are Prof. Sarah Culloty and Dr Sharon Lynch.

Postgraduate Researcher of the Year 2020 Runner Up: Samuel Ross is a researcher based in Trinity College Dublin. His research is focused on developing novel methods to understand ecological resilience. By working with acoustic arrays, Samuel is researching how eco-acoustics can provide high resolution real time monitoring of ecosystems. Samuel's supervisor is Dr. Ian Donohue.



ESAI HEI Undergraduate of the Year Award 2019/2020: ESAI and our sponsors continue to recognise the excellence of young researchers through our Undergraduate of the Year Awards. This is the 4th year of the competition with 15 nominations from 12 colleges. 2019-2020 Winners: Jessica Alvarado (GMIT), Alison Scott (University of Ulster), Hannah Farrelly (DCU), Thomas Robinson (TCD), Teagan Reinert (NUIG), Samantha O'Neill (Level 8, IT Carlow), Sean Brennan (Level 7, IT Carlow), Deirdre O'Donnell (UL), Karl Hoffman (Level 8, CIT), Maria Gulak (Level 7, CIT), Mairead O'Donnell (LIT), Eva Naughton (UCD), Aoife McMullin (IT Sligo), Faolan Radford McGovern (Level 8, TU Dublin), and Sinead Aspell (Level 7, TU Dublin). Special thanks to Niamh Power for managing this on behalf of the ESAI.



Covid 19 restrictions unfortunately interrupted our **EPA funded Grassroots Award Scheme**. Public health restrictions meant that our 2019 grassroots awardee Aoife Long, UCC could not hold her workshop. The grassroots award has been relaunched as a virtual event in 2021. Special thanks to the EPA for their continued support.

Summer 2020 ESAI / TU Dublin Webinar Series: Summer of 2020 saw the ESAI move our events online through our summer webinar series managed by John Gallagher, TCD. Huge thanks to John and all the ESAI council for their work on this series. A total of 6 webinars were held sponsored by the EU Development Education and Awareness Raising Program, BUILD Solid Ground and the Development Technology in the Community Research Group at TU Dublin with 296 registered attendees. The full webinar series was as follows:

- 11th June - ESAI / EPA Grassroots Award Scheme #1 (Aoife Lynch & Sean Long)
- 18th June – Environ 2020 Team Post Lockdown Path for Climate & Biodiversity (John Gibbons, Env. Writer & Columnist & Peter Stuart, IT Tralee)
- 25th June – ESAI / EPA Grassroots Award Scheme #2 (Jean O'Dwyer, UCC)
- 16th July – ESAI Postgraduate Researcher of the Year: What it takes to excel in research – (2017 Winner Philip Shine, CIT & 2019 Winner Molly Ann Williams, DCU)
- 16th July – ESAI Virtual Environmental Quiz
- 23rd July – Overcoming Adversity in your Research – Lessons for dealing with Covid-19 (Prof Enda Hayes, Uni of Bristol) Carol O'Sullivan (EPA), Dr Kathryn Schoenrock (NUI Galway)



Nature is Art Competition: The ESAI in partnership with the Development Technology in the Community Research Group at TU Dublin, launched a "Nature is Art" competition in Summer 2020, attracting over 30 entries. Congratulations to the overall winner Aaron Foley 'Bluebells' and special thanks to judge, Galway based photographer Jacque Pirez Nutan.

Partnering with other groups to provide access to ESAI members to events

In 2020 the ESAI partnered with several organisations to support a number of environmental initiatives and provide access to our members.

- 22nd April CIEEM Conference – Conservation Approaches to Benefit Biodiversity; Big Challenges: Big Ideas – discount for ESAI members
- Partnering with EwB to promote their summer webinar series 'Resilient Cities – Resilient Communities' to ESAI members which ran from June – Aug hosted by Engineers Without Borders Ireland.
- June 24th-25th & 29th-30th – AquaTT & NUIG Webinar Workshop: Co-Creating Sustainable Change in Ireland with Dr Doug McKenzie-Mohr – Discounts for ESAI Members

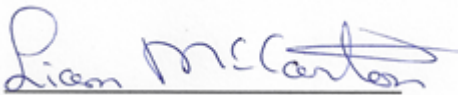
We would also like to acknowledge our ESAI Liaison officers in each college. These staff members act as a contact point for ESAI activities and information flow. On 12th Nov 2020 we held a meeting to discuss how we can best support liaison officers with representatives from 5 colleges in attendance. This is an ongoing discussion throughout 2021. We are also offering free membership to all undergraduates in relevant courses in each college.

ESAI Communications: ESAI members are the core of the organisation and during 2019/2020 we launched a new website to improve how we engage with our members. Special thanks to the comms team lead by John Gallagher, TCD for his outstanding work in this regard. 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 2020 the ESAI had 586 members, comprising of 216 full members and 270 student members.

ESAI Council Meetings and AGM October 2020: The ESAI held a total of 5 council meetings during 2020. The AGM was convened online to coincide with Environ in October 2020. Joe Harrington, CIT, Jenny Lawler, DCU and Declan Feeney, IT Sligo stepped down with nobody new joining. Postgrad of Year 2019 Molly-Ann Williams, DCU 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. As chair of the ESAI I would also like to acknowledge the passion, professionalism and commitment of the entire ESAI council during the past year.

The global and national impacts of Covid19 continue to challenge ESAI members, both professionally and personally. ESAI will continue to adapt to this global challenge and seek ways in which we can serve our members and the wider the environmental community in Ireland though this coming year



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](#)
- [Keeping in touch with the ESAI](#)
- [Further information on ESAI Code of Ethics and Constitution](#)

2020 Events

Date	Event
February 28th	ESAI Grassroots Workshop Support Scheme Sponsored by EPA – Rolling Call
April 22nd	Discounts for ESAI Members CIEEM Online Conference 'Conservation Approaches to Benefit Biodiversity: Big Challenges, Big Ideas'
April 30th	ESAI Grassroots Workshop Support Scheme Sponsored by EPA – Rolling Call
May 1st	ESAI Environews Spring/Summer Edition available
June	ESAI Undergraduate of Year Awards 2019/2020 Review with HEI's commences
June 3rd –	ESAI Media Partners 'RESILIENCE – Rethinking Communities in a Post-Covid World' EwB & TU Dublin Lunchtime Summer Lunchtime Webinar Series
June 11th	ESAI Summer Webinar Series ESAI/EPA Grassroots Award Scheme -Supporting Citizens Engagement in Ireland #1 'Developing a dance-based workshop in Science Communications' – Aoife Long 'OpenLitterMap: Open Data on Plastic Pollution with Blockchain Rewards (Littercoin)' – Sean Lynch
June 11th	Launch ESAI Photography Competition Theme 'Nature is Art'
June 18th	ESAI Summer Webinar Series – Environ 2020 Team & DCU Water Institute Post Lockdown Path for Climate & Biodiversity 'Irish Agriculture: Beyond Greenwashing and Towards A Green New Deal with Nature' – John Gibbons 'Why During this Health Crisis The Biodiversity Crisis Matters Even More' – Dr Peter Stuart
June 25th-25th & 29th-30th	Discounts for ESAI Members AquaTT & NUIG Webinar Workshop Co-Creating Sustainable Change in Ireland with Dr Doug McKenzie-Mohr
June 25th	ESAI Summer Webinar Series ESAI/EPA Grassroots Award Scheme -Supporting Citizens Engagement in Ireland #2 'Safeguarding private water supplies from contamination through public engagement' – Jean O'Dwyer
June 30th	ESAI Grassroots Workshop Support Scheme Sponsored by EPA – Rolling Call
July 16th	ESAI Summer Webinar Series ESAI Postgraduate Researcher of the Year Award – What it takes to excel in Research 'Novel Methods of monitoring Atlantic salmon using environmental DNA' – 2019 Winner

	<p>Molly Williams</p> <p><i>'Electricity use on Irish Dairy farms – A National Approach to Improving Efficiency using Artificial Intelligence'</i> – 2017 Winner Philip Shine</p>
July 16th	<p>ESAI Virtual Environmental Quiz</p> <p>Online social night for members</p>
July 23rd	<p>ESAI Summer Webinar Series</p> <p>Overcoming adversity in your Research: Lessons for dealing with COVID-19</p> <p><i>'Looking back the effect of Foot & Mouth on my PhD'</i> – Prof Enda Hayes, UWE Bristol</p> <p><i>'Managing Productivity during COVID'</i> – Carol O'Sullivan, EPA</p> <p><i>'KepRes; Working with citizen scientists to better understand marine habitats, especially kelp forests in Ireland'</i> – Dr Kathryn Schoenrock, NUI Galway</p>
August 31st	<p>ESAI Grassroots Workshop Support Scheme</p> <p>Sponsored by EPA – Rolling Call</p>
September 17th	<p>ESAI Photography Competition Winner Announcement</p> <p>Nature is Art – Winner Aaron Foley 'Bluebells'</p>
September 30th	<p>Undergraduate Membership Offer</p> <p>Free Membership for all Undergraduate Members Scheme Rolled Out</p>
October 16th	<p>ESAI Environews Autumn Edition available</p>
October 22nd - 24th	<p>Environ 2020 – 30th Annual Irish Environmental Researchers Colloquium</p> <p>Co-hosted online with DCU Water Institute</p>
October 21st	<p>ESAI AGM 2020</p> <p>17:30-18:00, online (held in conjunction with Environ 2021)</p> <p>All members welcome</p>
October 24th	<p>ESAI Student Competition Prize Giving Ceremony & 30th Anniversary Honours List Announcement</p>
October 31st	<p>ESAI Grassroots Workshop Support Scheme</p> <p>Sponsored by EPA – Rolling Call</p>
October 31st	<p>ESAI Postgraduate Researcher of Year Award</p> <p>Closing date for applications</p>
November 3rd	<p>ESAI HEI nominated Undergraduate of Year 2019/2020</p> <p>Announcements and presentation of certificates (by post!)</p>
November 12th	<p>ESAI College Liaisons Meets with ESAI Council</p>
December 15th	<p>ESAI Environews Winter Edition available</p>
December 31st	<p>ESAI Grassroots Workshop Support Scheme</p> <p>Sponsored by EPA – Rolling Call</p>

ESAI Income and Expenditure 2020

ESAI INCOME AND EXPENDITURE ACCOUNT	€	€
For the year ended 31 December 2019		6,697
Opening balance as 01/01/20		
Income		
Membership	3,579	
Environ 2020 – Delegate Fees	22,909	
Environ 2020 - Sponsorship	22,500	
Environ Prizes	1,500	
Sponsorship of Summer Webinar Series	850	
Rebate	18	
Total Income	51,356	
Expenditure		
Environ 2020	14,300	
Environ 2020 – Refunds	5,161	
Prizes	2,450	
Website Maintenance	2,790	
Administration	9,196	
Travel	272	
Accountancy	0	
Bank Charge	320	
Merchant Banking	812	
Insurance	0	
Postage/Stationary	0	
Postgraduate of Year Prize	500	
Governance	1,338	
Other	75	
Total Expenditure	37,214	
Excess Income over Expenditure		14,143
Closing Balance per Bank @ 31/12/20		20,840

End of Year accounts are overseen and approved by external accountant

ESAI Council Members 2020

Chairperson	Regular Members
Mr Liam McCarton	
Email: chairperson@esaiweb.org	Prof Frances Lucy – IT Sligo
Honorary Secretary	Dr Kevin Ryan – Cork County Council
Mr Philip Shine	
Email: secretary@esaiweb.org	Dr Joe Harrington – Cork IT
Honorary Treasurer	Prof Tasman Crowe - UCD
Dr Niamh Power	
Email: treasurer@esaiweb.org	Dr Tom Curran - UCD
Communications Officer	Dr Dorothy Stewart - EPA
Dr John Gallagher	
Email: communications@esaiweb.org	Mr Declan Feeney – IT Sligo
Editor	Membership Officer
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