



ZOobyTES

Winter 2024



Newsletter of the Department of Zoology
Trinity College Dublin

NEW PEOPLE

Dr. Danielle Gallagher

Postdoc

O'Connor Group

Hi, my name is Danielle and I have just joined Professor Nessa O'Connor's group on the [C-FAARER](#) project, where we will be looking at community-driven ocean farming - specifically by conducting a transdisciplinary gap analysis on the potential for regenerative seaweed farming in the Atlantic and Arctic sea basin region. I am very excited to join this project and to join the Zoology Department, as seaweed cultivation, product applications and community-driven climate solutions are topics that really interest me. My background is in biofuel research and development, biotechnology, genetic engineering and molecular biology. Previous to this I was in the Botany Department working on Ireland's Climate Change Assessment report funded by the EPA, which will be published in 2024. I also directed a small start-up called DúlaBio from 2018-2021. I am from Donegal, love to cycle, swim, and hang out with my baby girl Nora :)



Dr. Charlotte Carrier-Belleau

Postdoc

Piggott Group

My name is Charlotte, I am a French Canadian who recently arrived at Trinity to work as a postdoctoral fellow in Jeremy Piggott's lab. I am an aquatic biologist with an interest in understanding the dynamics of multiple stressor interactions, legacy effects, and tipping points within ecosystems. While my research predominantly delves into the ecology of bivalves in sub-arctic and arctic ecosystems, my overarching curiosity lies in exploring the theoretical dimensions of stressor interactions. Although I've had the opportunity to meet many of you already, I'm eager to get to know each of you better !

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@tcdzoology

Aoife Kiernan
Research Assistant
Nature+Energy Group

Aoife joined the Nature+Energy team in November 2023 as a research assistant. Since joining the project, she has been focusing on the Demonstrator Park work package. She has also been working on project communications, including setting up Instagram, Twitter/X and LinkedIn accounts to share Nature+Energy research updates and to raise awareness among the general public of the opportunities to have high biodiversity on windfarms. Before joining the project, Aoife graduated with her bachelor's degree in Environmental Sciences from Trinity College, where she co-founded an environmental magazine. She has always had a strong interest in environmental communications and has previously worked as a geological tour guide and as a teacher in science camps for children.

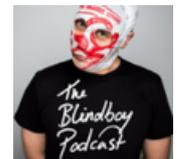


OPEN POSITIONS

Prof Yvonne Buckley will be hiring for positions in the Operations team of Climate+ (Exec Director, Business development manager, Education & Public Engagement Manager, Policy, skills & workshops officer, Research development officer, General administrative officer, Finance officer), and a research fellow (2 yrs with potential to extend for 2 yrs) early in the new year. Contact me to be added to the mailing list for the job adverts.

ZOOLOGY IN THE NEWS

Prof Yvonne Buckley was a guest on the Blindboy podcast speaking about climate and biodiversity crises: <https://shows.acast.com/blindboy/episodes/speaking-to-an-expert-about-climate-and-biodiversity-collaps>



She has also written articles for the Irish Times on plant animal interactions, nature-based solutions, invasive species, wasps, skills shortages and the importance of degrees like zoology, and frozen zoos over the past few months:

- <https://www.irishtimes.com/environment/climate-crisis/2023/11/23/how-plants-have-evolved-to-fend-off-hungry-predators/>
- <https://www.irishtimes.com/environment/climate-crisis/2023/11/06/working-with-nature-will-help-us-tackle-climate-crisis-and-biodiversity-loss/>
- <https://www.irishtimes.com/science/2023/09/28/the-aliens-are-winning-how-can-we-control-invasive-species-and-improve-our-quality-of-life/>
- <https://www.irishtimes.com/environment/climate-crisis/2023/08/24/sugar-crazed-common-wasp-gives-the-species-a-bad-name/>
- <https://www.irishtimes.com/science/2023/07/27/green-skills-needed-for-mainstream-economy/>
- <https://www.irishtimes.com/science/2023/06/22/museums-show-what-species-we-have-lost-frozen-zoos-can-help-prevent-further-extinctions/>

Speed of sight and sporting prowess



Clinton Haarlem's research was recently published in *New Scientist*. The article is subscription-only online, but it was published in the printed issue on January 6th, available at Eason's etc. You can also find a copy in the Zoology tea room!

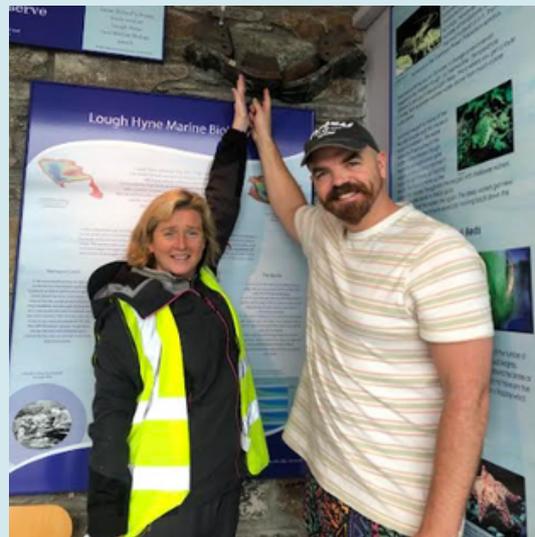
- <https://www.newscientist.com/article/2409000-peoples-speed-of-sight-varies-and-this-may-explain-sporting-prowess/>

2023 Marine Biology Field Course

Last September, we completed another successful Junior Sophister Marine Biology Field Course in another new location! After many decades of frequenting the shores of Strangford Lough, unfortunately following COVID-19, it is no longer feasible to run our field course in Portaferry. In the last five years we have run the marine biology field course in four different locations! This year we were based at CECAS – Centre of Excellence for Climate Action and Sustainability at Myross Wood House in West Cork. The facilities were ideal for our needs and of course we visited Lough Hyne (Europe's oldest marine nature reserve). We are very happy to support the CECAS mission and hope to continue visiting for more field courses.



JS Zoology 2023 at Lough Hyne, Co. Cork



Profs O'Connor and Payne touching the 'lucky' diving boots of famous marine biologist, Prof Louis Renouf, at the Skibbereen Heritage Centre.

PROJECT UPDATES

Climate+ Biodiversity and Water Co-Centre

Prof Yvonne Buckley is co-Director of the successfully funded Climate+ Biodiversity and Water Co-Centre (€41.3M) which involves colleagues from 14 different institutions across the islands of Ireland and Great Britain.

- https://www.tcd.ie/news_events/articles/2023/trinity-to-headquarter-climate-co-centre/

Greenlabs Updates and Tips

At the start of December, the Greenlabs team completed their final survey of the programme, following the implementation of green initiatives across the Discipline. Towards the end of December, we were delighted to hear that we have achieved Green certification, which is the highest level of certification in the Greenlabs programme (bronze, silver, gold, and green), with a score of 97%! On our first survey we scored 55%, which highlights how much we have achieved in the space of a year!

We are very proud of our work, with representatives from each research group ensuring the learnings and change initiatives are common across the whole discipline. We believe we are the first discipline in the college to achieve this!

We hope to continue to implement the changes we have made and continue to incorporate sustainable processes into every aspect of our work in Zoology. It is great to begin 2024 with Greenlab status, and the certification will last until December 2025!



Members of the Greenlab team with the 'Green' Certificate. L-R Caoimhe Coveney McKeown, Simon Benson, Emma King, Alison Boyce, Paula Murphy, and Ebru Talak Bastürkmen



Greenlabs Tip: Check out the [Trinity Waste and Recycling Bin map](#) to find out where you can correctly recycle an item, including clothes, glass, metal, electronic (WEEE) and many other types of recycling!



Greenlab reps celebrate with homemade cider and cake. L-R Ebru Talak Bastürkmen, Aoife Malloy, Paula Murphy, Emma King, Niamh McCartan, Grace McNicholas, Simon Benson, Aedin McAdams, Clinton Haarlem, Alison Boyce, and Grace Aspell.

Piggott Lab Visitors

The **Piggott group** recently welcomed two visiting researchers into their lab. Tintin Zulkipli worked with the Piggott lab as a visiting PhD student under the AQUACOSM+ project from September through to November. Post-doctoral researcher Noel Juvigny-Khenafou visited the lab in December, examining multiple stressor effects on microbial diversity. See photos from their time at Trinity below!



Conferences and Outreach Activities

Ruth Brennan gave a few different talks this autumn. On October 22nd, she attended a Fair Seas and Irish Whale and Dolphin Group public outreach event on marine protected areas and gave a talk on "Dúchas na Mara/Belonging to the Sea: the story of a marine protected area conflict in a small Scottish Island". On November 21st, she gave an online talk to Wind Energy Ireland's Community Engagement Committee on "Understanding Communities". She also attended the Irish Ocean Literacy Network Annual Members Meeting on 22 November and gave a talk on "Ocean Literacy as an Emotional Entanglement of People and Place."

Prof Yvonne Buckley was a plenary speaker at the Zurich-Basel Plant Science Center anniversary symposium (Dec 2023) and presented work by former PhD student Caroline McKeon at the British Ecological Society annual meeting (Dec 2023).



Congratulations to **Francis Spellman** on the conferral of his Masters entitled *Assessing novel cultivation methods, baseline fish assemblage and survey methodologies of cultivated and wild kelp in the Southwest of Ireland.*



C-FAARER Assembly Meeting and Workshop

The C-FAARER project had their first general assembly meeting in November. The meeting took place at Trinity Business School and ran over the course of 2 days - project partners, advisors, industry stakeholders and seaweed growers/harvesters were able to come together in person and online, to discuss, present progress and exchange ideas for the project. The project also facilitated an external workshop that will form the basis of establishing Ireland's first ocean farming cluster. The meeting was a great success and set a very positive path for the transdisciplinary nature of this project. Further details below on the event:

November 16th, 2023, marked the first significant milestone for C-FAARER, as our consortium gathered with 20 ocean farmers, processors, producers and investors to learn and brainstorm about an Irish Cluster to support the transition towards sustainable business models in ocean farming.

The session was led by our communications team from [Sea Going Green](#) who facilitated the session and got the conversation going. Dharm Kapletia from our lead partner, [Trinity College Dublin](#), opened the workshop, providing valuable insights into our project's journey and achievements.

The workshop featured two exceptional guest speakers: Justin Davis from [Câr-y-Môr](#) and Heidi Meland from the [Norwegian Seaweed Association](#). They shared their successful journeys in sustainable ocean farming, offering hope and practical solutions to our workshop participants.

The workshop not only gave us hope, but we were also able to define clear next steps. A prominent outcome is the decision to establish a Stakeholder Advisory Board, which will consist of ocean farmers, processors, and producers to serve as advisors and ambassadors for the Irish Cluster initiative.



PUBLICATIONS

- Former and current members of Zoology co-authored a paper on variation in traits and genotypes between populations on islands and between mainland populations to test the effects of geographic isolation. The paper “Spatial phenotypic variability is higher between island populations than between mainland populations worldwide” was published in *Ecography* and was led by former Zoology research fellow Anna Csergo. The paper is notable because it emerged from discussions and really active collaborations within the Biogeography Discussion Group (BDG) between PhD students, post-docs and academics within Zoology (Anna, Kevin, Darren, Maude, Dave, Fionn, Annabel, Jesus, Cian Marvin & Yvonne). A real home grown success story! Link to article: <https://onlinelibrary.wiley.com/doi/full/10.1111/ecog.06787>
- **Prof Yvonne Buckley** and **Alain Finn** (former Research Assistant Zoology) contributed to a paper on variation in herbivory in *Science* “Plant size, latitude, and phylogeny explain within-population variability in herbivory”, with several Irish sites included in the global data-set. Link to article: <https://www.science.org/doi/10.1126/science.adh8830>
- Baikova D, Boden L, Deep A, Doliwa A, Hadžiomerović U, Leese F, Madge Pimentel I, Mayombo N, **Piggott J**, Prati S, Stach T, Starke J and Vermeert A (2023) Miniature Streams Show Scientists How Multiple Stressors Impact Our Rivers. *Front. Young Minds*. 11:1147094. doi: [10.3389/frym.2023.1147094](https://doi.org/10.3389/frym.2023.1147094)
- Juvigny-Khenafou, N.P., Burgazzi, G., Steiner, N., Harvey, E., Terui, A., **Piggott, J.**, Manfrin, A., Feckler, A., Leese, F. and Schäfer, R.B., 2024. Effects of flow reduction and artificial light at night (ALAN) on litter decomposition and invertebrate communities in streams: A flume experiment. *Science of The Total Environment*, 912, <https://doi.org/10.1016/j.scitotenv.2023.168836>
- O’Keeffe, F.E., Pendleton, R.C., **Holland, C.V.** and **Luijckx, P.** (2023). Increased virulence due to multiple infection in *Daphnia* leads to limited growth in 1 of 2 co-infecting microsporidian parasites. *Parasitology*, pp.1-10. <https://doi.org/10.1017/S0031182023001130>
- **Schertenleib, K.S.**, Bruen, M., Crowe, T.P. and **O’Connor, N.E.** (2023). Linking environmental monitoring data and the predicted effects of climate change for urban coastal management: A case study of Dublin Bay. *Journal of Sea Research*, 196, <https://doi.org/10.1016/j.seares.2023.102442>



Edited by Whitney Parker (@whitneyk127)

Do you have news to share in the next issue of Zoobytes? Whether staff or student, if you have news (big or small!) get in touch with me at parkerw@tcd.ie using the email subject “Zoobytes.”

Are you a Zoology Alumnus doing something interesting? We’d love to hear what you’re up to and include you in the next issue’s “Where are they now?” section.

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