NEW PEOPLE

Tallulah Davey
Research Assistant
O’Connor Group

Hello all, I’m Tallulah, and I’ve recently joined Zoology as a Research Assistant in the O’Connor lab where I will be working on the new Beyond Biofuel seaweed cultivation project! As a Zoology graduate from Trinity, I am passionate about intertidal ecology, biodiversity conservation and climate change mitigation. Past projects I have worked on include enhancing seawall biodiversity and oyster reef restoration in Sydney Harbour, and understanding the impact of warming on seaweed-grazer interactions in Ireland.

Dr. Hannah White
IRC Postdoctoral Fellow
Buckley Group

I am a GOI Irish Research Council Postdoctoral Fellow working on the contribution of commonness and rarity to patterns of biodiversity. For the past 4 years I have been doing a postdoc within the Ecological Modelling Group at University College Dublin.

Andrew McManus
PhD Student
Stuart Group (IT Tralee) & Holland Group

Andrew will undertake a PhD co-supervised by Dr. Peter Stuart (now Assistant Professor at IT Tralee) and Prof. Celia Holland as part of the Biodiversa-funded project “Managing biodiversity in forests and urban green spaces: Dilution and amplification effects of rodent microbiome and rodent-borne diseases.” Andrew completed his undergraduate degree in Zoology and previously worked on ornithological conservation projects with BirdWatch Ireland.
Dr. Mathias Kuemmerlen  
Research Fellow  
Piggott Group

Mathias recently joined the Piggott Lab as a Research Fellow to investigate how remote sensing products can be used to understand the threats to Irish Freshwater Pearl Mussel populations. Mathias earned his Ph.D. in Biology at the Goethe University in Frankfurt, Germany. As a postdoc he spent several years at the Senckenberg Institute in Germany and at Eawag in Switzerland.

Dr. Javier Puy  
Research Fellow  
Buckley Group

I’m a new postdoc in the Buckley Lab working on a PlantPopNet project that seeks to 1) understand the variation in reproductive strategies of *Plantago lanceolata* across global scales and 2) determine how demography affects, and is affected by, clonality. I am originally from the north of Spain/Basque Country, but I was trained as a plant functional ecologist in Czech Republic, where I did my PhD. I was there when I began to get curious about the causes and consequences of the intraspecific phenotypic variability in ecology and evolution, with special focus on transgenerational epigenetic inheritance.
Dr. Jason Keegan
IRC Postdoctoral Fellow
Holland Group

Jason Keegan will be returning to the department as an IRC Postdoctoral Fellow working on a project entitled "Teaching an old dog new tricks: The application of novel geospatial modelling techniques to investigate the interactions between two major reservoirs of *Toxocara* spp. infection." Jason completed his undergraduate and M.Sc degrees in the Zoology Department. He then completed his PhD in Teagasc in conjunction with the Department of Agriculture and UCD working on the molecular basis of anthelmintic resistance in Irish sheep nematodes. He has most recently been working at Alltech, as a regulatory research specialist, investigating the effects of various animal feed additives on multiple farm animal species.

ZOOLEGY IN THE NEWS

Combatting coronavirus

Three former members of the Parasitology group are involved in the fight against Covid-19. Most recently, Gwen Deslyper, having submitted her PhD thesis, has started a job as a Surveillance Scientist in the Health Protection Surveillance Centre. Rachel Byrne (MSc, 2019) is working on Covid-19 diagnostics at the Liverpool School of Tropical Medicine. Dr. Chris Dold (PhD, 2010 ) is a senior researcher on the development of a vaccine against COVID-19 as part of the Oxford vaccine group and was recently profiled in the Guardian newspaper.

Sensing Ecologies

Fionn Ó Marcaigh and Sam Ross lent their voices to Sensing Ecologies, an app offering an immersive geo-located audio tour of Bull Island. The app is free and available from the iOS app store or the Google Play Store. Fionn spoke about the app to RTÉ’s Drivetime programme, available on the RTÉ Player at this link (the segment begins at 1:19:00).

Ecological Thresholds

A recent publication in *Nature Ecology & Evolution* co-authored by Dr. Ian Donohue has been making quite a stir in the national and international news. The main finding of the paper, that thresholds for ecological responses to global change do not emerge from empirical data, has important implications for policy and management, and was covered in both *The Irish Times* and *Irish Independent*. 
Open call for news

Prof. Yvonne Buckley is a monthly science columnist for the Irish Times and has covered topics such as restoration, biodiversity, nature-based solutions for carbon capture and storage, food history, and zoo collections. “I am always looking for interesting new science projects, papers or connections with society to write about. I have written about research by members of TCD Zoology so do let me know if you have something interesting to share.”

NEWS FROM THE ZOOLOGY MUSEUM

Unfortunately, all outreach and related activities have been suspended due to COVID-19. The museum is effectively closed to visitors and students until further notice. However, the temporary closure has enabled Dr. Martyn Linnie to undertake minor alterations to the layout of the free-standing exhibits and to continue vital conservation work on the insect collections.

WHERE ARE THEY NOW?

Prof. William (Bill) Campbell
Undergraduate Zoology (Graduated 1952)
Nobel prize winning scientist

Prof. Campbell conducted undergraduate studies in Zoology before going on to develop a cure for river blindness—caused by the filarial nematode *Onchocerca volvulus*—which ultimately earned him the 2015 Nobel Prize in Physiology or Medicine. He talks fondly of his time at Trinity, and particularly of mentorship by James Desmond Smyth, himself a renowned parasitologist.

Juliette Picard
Research Intern (2017-2018)
Natural Regional Park

Juliette was a visiting intern with Dr. Ian Donohue, working closely with Dr. Maureen Williams in 2017-2018. Since returning to France and finishing her degree, she has moved to Normandy, where she works in a Natural Regional Park. She’s enjoying the fresh air and green views!
Beyond biofuel

Just before lockdown, **Dr. Nessa O’Connor** was invited to Áras an Uachtaráin to receive an SFI President of Ireland Future Research Leaders Award. This prestigious award will support a new 5-year project in Zoology, *Beyond biofuel: Advanced seaweed cultivation for marine biodiscovery and climate change mitigation* (€1.3M)

Adapt taxonomy to conservation goals

**Dr. Darren O’Connell**, **Dr. Dave Kelly** and **Prof. Nicola Marples** recently published an opinion piece in *Science*. Prof. Marples says that the piece is a warning that “we shouldn’t endanger rare species by insisting on a type specimen before they can be officially recognised and therefore given any protection. Our argument is based around the new species of white eye we found, as it’s fast disappearing due to the pet trade.”

Tracking sharks with ROVs

**Haley Dalton** won a remove underwater vehicle (ROV) from the Conservation X Labs ROVs for Good program. “I’ll use it for my PhD chapter researching sixgill shark biology and ecology in Irish waters. It will allow me to follow sharks after capture in fisheries (from a safe distance) to see how they behave after a stressful event and to perform surveys from the boat to see whether the West coast of Ireland is a hotspot for this species. You control the ROV like you would in a driving game (it literally comes with a games controller!) and it records in super HD quality.”

ESDecide

As part of the EPA-funded ESDecide project (@ESDecideProj), **Dr. Marcin Penk** and multidisciplinary collaborators held an expert workshop to build a Bayesian network model which will form the heart of an on-line decision support tool for linking land management with ecosystem services derived from rivers.

Impact resistance of limpet shells

Well done to **Niamh Harford** (Zoology, 2019) who recently published the results of her Moderatorship project with co-authors **Dr. Nessa O’Connor** and **Prof. David Taylor** (Mechanical Engineering).
Back on the open ocean

“The Payne Lab finally got back out in the field this week, after a prolonged COVID hiatus! We collected accelerometer and camera data from a 2.07m Atlantic Bluefin tuna off the coast of Co. Donegal as part of Haley Dolton’s PhD project. We’re all very happy to be back collecting data and it’s a great start to our tuna season.” **Lucy Harding.**

AQUACOSM-plus

The H2020 project AQUACOSM-plus, on which **Dr. Jay Piggott** is the Irish funded investigator, had its kick-off meeting. This project is a “Network of Leading Ecosystem Scale Experimental AQUAtic MesoCOSM Facilities Connecting Rivers, Lakes, Estuaries and Oceans in Europe and beyond”

Áras an Uachtaráin Biodiversity Audit

The Áras an Uachtaráin biodiversity audit is nearly complete. This audit, led by Prof. Jane Stout (Botany) and managed by **Dr. Aoibheann Gaughran**, represents a considerable effort by members of Zoology and beyond, including Prof. John Rochford, Prof. Nicola Marples, Dr. Dave Kelly, Dr. Ruth Kelly, Collie Ennis, Fionn Ó Marcaigh, and Sam Preston from Zoology. The audit aims to catalogue the biodiversity of the Áras, and present findings and management recommendations to President Higgins. *Find out more in the Autumn 2020 XtraBytes.*

ON THE **ECOEVO@TCD BLOG**

**Boating in Ankobohobo, or The Importance of Bird Areas**

**Fionn Ó Marcaigh**

Fionn published a paper with Malagasy and British coauthors, presenting the first detailed list of bird species inhabiting a mangrove in Madagascar. Ankobohobo Wetland is home to many endemic Malagasy species, some of them in imminent danger of extinction, but only a handful of these had previously been recorded in the literature.
The remarkable bird life of the Wakatobi Islands, SE Sulawesi: hidden endemism and threatened populations
Dr. Darren O’Connell

In their recent paper in the Raffles Bulletin of Zoology, Darren and colleagues “summarise 20 years of remarkable work by Prof. Nicola Marples, Dr. Dave Kelly and others, recording 100 bird species for the islands, highlight recently described species, and discuss the threats facing the resident Critically Endangered species.”

Read these blog posts and more on the award-winning EcoEvo@TCD blog.

LATEST PUBLICATIONS


Kelly, D.J., Gaughran, A., Mullen, E., MacWhite, T., Maher, P., Good, M., Marples, N.M. (2020). Extra Territorial Excursions by European badgers are not limited by age, sex or season. Scientific reports 10, 1-12. DOI: 10.1038/s41598-020-66809-w


*Zoology affiliations highlighted in bold.*
OTHER ACTIVITIES

Save Our Seas Foundation’s "the Whole Tooth" is a new series where ocean experts answer children’s marine and sharky questions. PhD student Jenny Bortoluzzi was featured in episode 2 answering the question "How do sharks communicate?"

Prof. Yvonne Buckley has been appointed as a Senior Editor for Journal of Ecology, which is published by the British Ecological Society. Journal of Ecology is one of the leading ecology journals internationally and publishes papers on all aspects of the ecology of plants. Congratulations, Yvonne!

“For our super exciting Food Smart Dublin project, co-led by Dr. Nessa O’Connor, we’re thrilled to announce 5 upcoming interactive workshops with ECO-UNESCO on their sustainable seafood consumption programme. These workshops are for young environmental activists or students (16-18yrs) who are interested to learn and engage in sustainable and local seafood consumption.” Dr. Cordula Scherer.

BE FOODSMART! CALENDAR
24th September - 24th October 2020

THURSDAY 24TH SEPTEMBER
Drop-in between 4:00pm and 6:30pm: Introductory Meeting - Sutton Beach (Dublin Bay side near Marine Hotel)

FRIDAY 25TH SEPTEMBER
4:30pm - 6:30pm: Sustainable Food - Online

FRIDAY 2ND OCTOBER
4:30pm - 6:30pm: Irish Seafood - Online

FRIDAY 9TH OCTOBER
4:30pm - 6:30pm: Seasonality - Online

SATURDAY 17TH OCT
3:00pm - 5:00pm: Foraging Workshop - Sutton Beach (Dublin Bay side near Marine Hotel)

SATURDAY 24TH OCTOBER
3:00pm - 5:00pm: Cooking Workshop (Online, including cooking kit)
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 on rosssa[at]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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