



5th October 2023 | Issue 21

Welcome to the first issue of the newsletter this academic year! We hope you've all enjoyed your summer holidays and they were filled with plenty of relaxation, adventure, and a bit of research!

We would like to say farewell to our former editor, **Blanka Kovács**. Blanka has done such an amazing job during her time on the G(e)ossip Team and we couldn't have asked for a better editor to learn from.

Fay Amstutz will be joined by **Amanda Perera** and **Daniela Vitarelli** on the G(e)ossip Team this academic year.

Thank you for everything Blanka – we hope we do you proud!

- Fay, Amanda, & Dani

Our newsletters are archived and uploaded on the Geology website. You can access them [here](#).

The G(e)ossip will be released on the last Thursday of each month.

If you have feedback or anything to be added to upcoming newsletter issues, please send us an email at geossip.tcd@gmail.com.

-The G(e)ossip Team

DEPARTMENT NEWS

Congratulations to **Niamh Faulkner** who won [iCrag's](#) "Education and Public Engagement Award" in June! The Education and Public Engagement Award is presented to an individual that has shown dedication to education and public engagement, an ability to engage deeply with their target audience, and through EPE has delivered societal impact.

FAREWELL

Farewell to **Rita Beinert** who retired at the end of September. We would like to thank her for, well, *everything* – including the many cups of tea! A presentation by the School for Rita was held at the staff BBQ on the 8th of September by Head of School Ian Donohue.

On the 15th of September there was a gathering of colleagues, former colleagues, and friends in Kennedy's organised by Emma Leahy, Sarah Guerin and Helen O'Halloran. It was a great night and Rita really enjoyed herself. Her husband Hans Peter was also there (credit to him for the lovely photo of Rita and Jerry).



FAREWELL

We also say farewell to **Francis Hendron** who retired at the end of August. After working in the college for almost 40 years, there is far too much we need to thank Frank for, although one thing is for sure...it will be much quieter without his sense of humor! Thank you for everything Frank, especially the laughs!

To mark his retirement, the Disciplines of Geography and Geology held a reception in the Freeman Library on the 22nd of September followed by an evening of refreshments in Kennedy's Pub.



CONFERENCES

In September **Louise Caulfield** and **Patrick Wyse Jackson** attended the INStone symposium on built heritage held in Burren, Co. Clare where they presented an invited presentation on their Stonebuilt Ireland project co-authored by **Una Farrell**.

(Conference delegates outside the house on Fitzwilliam Street of Sir Richard Griffith, the eminent Victorian geologist. Photo by Duncan Hawley.)



COMMUNITY



In July, **Quentin Crowley** and **Subhash Chandra** co-delivered the Turas summer school at Munster Technological University, Tralee.

A mixture of 40 early career professionals and postgraduate students joined the summer school, as part of the IKC3 project to learn how to apply systems innovation to local climate and sustainability challenges.

DEPARTMENT NEWS

Quentin Crowley was invited to join a World Health Organisation team at the [International Agency for Research on Cancer](#) (IARC). Quentin will spend the next year working on an EU funded project to update the European Code Against Cancer.

International Agency for Research on Cancer



SAFETY AND ENERGY SAVING

Turn off the light!



Please make sure when you're leaving your office for the day to close the door properly, turn off all the lights and appliances. This includes the hallway lights as well.

GEOLOGICAL MUSEUM SPECIMEN OF THE MONTH

M1595
Sodalite, Augite & Garnet
Vesuvius, Italy



TCD Geological Museum

This month's specimen of the month is...**M1595!**

This specimen includes sodalite accompanied by black augite, cinnamon-coloured garnets, and a few crystals of green vesuvian and was collected at Vesuvius, Italy (Apjohn, 1850; Professor of Mineralogy from 1845-1881)

This is the first specimen to be nominated for specimen of the month. Visitors are very welcome to come by the **Geological Museum** and nominate specimens to be featured in the future!

CONFERENCES

Juan Diego, Melanie Maddin, Luca Terribili, and Remi Rateau all attended the International Conference on Crystal Growth and Epitaxy (**ICCGE20**), in Naples over the summer from the 30th of July to the 4th of August.

Juan Diego and Melanie gave talks, and Luca and Remi presented posters.

International Conference on Crystal Growth and Epitaxy
30 July - 4 August 2023, Naples (Italy)

Transient epitaxial overgrowths in the CaCO_3 - RECO_3H system formed during mineral replacement reactions

Chemical textures on rare earth carbonates:

DEPARTMENT NEWS

Congratulations to **Méabh Banrion** who was presented with an award for her "outstanding recent research" at the annual [European Radon Association](#) (ERA) meeting in Prague on September 21st!



COMMUNITY

From April through September, an art exhibition [Glossaries for Forwardness](#) by Marie Farrington was in the Museum Building. Marie's exhibition is based on a residency at the Trinity Centre for the Environment, and is a multi-media installation incorporating sculptural and audio works.

SCIENCE COMMUNICATION

Dublin Magmatism Group at TCD bring together researchers from across different volcanology and magmatism research teams aiming to facilitate collaboration across different institutions invested in volcanological research across Dublin. There are now active social media channels on both Instagram and [X \(Twitter\)](#) please follow [@dublinmagma](#) for updates.



DEPARTMENT NEWS

Congratulations to **Anna Morrison** who was awarded the Trinity Student Nomination for ESAI Undergraduate of the year! Anna is now doing her Masters with Mike Stock.



POSTGRAD STUDENT SUPPORT

GRAD CHATS

FOR ALL POSTGRADUATE STUDENTS

To equip students with the skills to manage stress, work-life balance, increase self-care practices, communication and assertiveness skills, and look at how best to negotiate the supervisory relationship

Mondays from 2pm - 3.10pm in-person at the Student Counselling Service offices (3rd floor, 7-9 Leinster Street South, Dublin 2)

With: Tom Adams (SCS) and Martin McAndrew (Postgraduate Advisory Service)

Scan me to sign up

Learn more on the PG Grad Chats [webpage](#) and pre-register [here](#).

The **Earth Science graduates of 2013** recently held their 10-year reunion.

It's hard to believe so much time has already passed. It was great to see everyone, and thank you for dropping by the Museum Building!



DEPARTMENT NEWS

This summer on the 24th of August, **Mike Stock** and **Lydia Whittaker** embarked on a fieldwork expedition to the Galápagos.

They were accompanied by a team of international researchers, including Dennis Geist (Colgate University), Marian Holness (University of Cambridge), Benjamin Bernard, and Jorje Zambrano (Escuela Politécnica Nacional). The purpose of the expedition was to collect samples and gain insights into the enigmatic rhyolitic eruptions that occurred on this volcano nearly 100,000 years ago. The presence of such high silica content in the Galapagos is exceedingly rare, as typical eruptions in this region produce basalt. In the current circumstances, an explosive rhyolitic eruption poses a significant threat to local fauna, tourism, agriculture, fishing, and the resident giant tortoise population. However, the likelihood of such an eruption is very low. Alcedo is an active volcano, but its last eruption, which took place between 1946 and 1960, involved Hawaiian-type eruptions characterized by basaltic lava flows.



The fieldwork was challenging, involving wild camping on the caldera rim of the volcano, but it was an overall success with a total of 65 samples and over 40 kg of rock safely transported back to Dublin. We eagerly anticipate the exciting research results in the future!

CONFERENCES

Patrick Wyse Jackson hosted the History of Geology Group (of the [Geological Society of London](#)) conference in the Museum Building in August. A day of lectures included those presented by **Una Farrell** on the Geological Museum digitisation project, and by Patrick on some early geological maps and drawings. The following three days comprised visits to locations of historical geological interest around Dublin including Killiney Beach where the first controlled source seismic detonations were carried out by Robert Mallet in 1849 and both the Geological Museum in TTEC and the Geological Gallery in the Museum Building where delegates were able to view our geological treasures.

CULTURE NIGHT

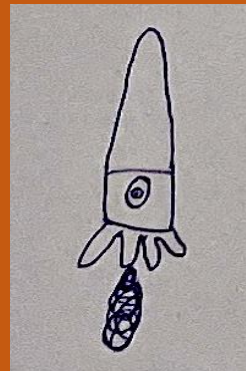
Dublin Magmatism Group, joined by researchers from DIAS (Dublin Institute for Advanced Studies), celebrated Dublin Culture Night on the 22nd of September. Members of the public of all ages were invited to come and learn about volcanism inside our historic museum building for an interactive evening of volcano demonstrations. An impressive turnout of over 250 people ensured the evening was a success, and we look forward to hosting again next year. Thank you to all our volunteers and iCrag for their help.

The **Trinity Geological Museum** also participated in Culture Night and received a steady amount of visitors who came by to learn and share their artistic interpretations!



DEPARTMENT NEWS

Oliver Higgins recently had a [paper published in Geology](#) discussing how eruptive dynamics reflect crustal structure and mantle productivity beneath volcanoes which was covered by a Swiss-French newspaper, [Le Matin](#) – congratulations, Oliver!



COMMUNITY

As a member of the **Trinity community**, you have the right to study or work in an environment that is **free from bullying, harassment, and sexual misconduct**. [Speak Out](#) provides the opportunity for you to make the University aware of incidents that you have either experienced or witnessed by reporting them anonymously.



DEPARTMENT NEWS

Quentin Crowley welcomed 52 new students to the start of the postgraduate certificate course on Climate Entrepreneurship, with the first class taking place in-person in Tangent on Saturday 23rd September. The course is a collaboration between the School of Natural Sciences and TCD Tangent, and supported by the Higher Education Authority through Springboard+. Anyone interested in joining the course next year is advised to keep an eye on the [Springboard+](#) website for updates.



DEPARTMENT NEWS

Ian Sanders and **Emma Tomlinson** are two of the four authors of a recently published paper that argues for the first time that at least one molten Moon-sized body (a giant ball of magma) existed in the infant Solar System less than 4 million years after the beginning and long before the present pattern of planets had become established. The argument is based on a unique fragment of garnet-omphacite peridotite that was discovered by Japanese scientists a few years ago in a regular stony (chondritic) meteorite. The paper postulates that a piece of the solid crust was dislodged and sank more than 500 km into the magma as a xenolith, and that it was being metamorphosed to garnet peridotite when the entire molten body collided with an even larger body and became totally dismembered, releasing the xenolith to space. The paper can be viewed for free on [Open Access](#).

CONFERENCES

Quentin Crowley delivered two invited presentations (Circular Economy, and Environmental and Human Health) and a workshop (Environmental and Human Health) at [iCRAG](#) Summit in Athlone in June.



MENTAL HEALTH MATTERS

TCD's Student Counselling Services is open and available to all registered students. Check out their website [here](#) to read about the services they provide, email them at student-counselling@tcd.ie to request an appointment, and follow them on Instagram at [@tcd_headspace](#) for mindfulness and mental health awareness tips. They now offer [PhD research support groups](#) to keep you on track!

WELLBEING

The [Silver Cloud programme](#) provides a great online tool to help you improve and maintain your wellbeing by addressing issues that can have a negative impact on your life. The program is provided by Student Counselling and is available to everyone in the Trinity Community.

PUBLICATIONS

- **Banrion, M.**, Cobelli, M., **Crowley, Q.G.** (2023) Applying machine learning to model radon using topsoil geochemistry, *Applied Geochemistry*, Volume 158, 105790. <https://doi.org/10.1016/j.apgeochem.2023.105790>
- **Dardac, M.**, Elio, J., **Aghdam, M.A.**, **Banrion, M.**, **Crowley, Q.G.** (2023). Application of airborne geophysical survey data in a logistic regression model to improve the predictive power of geogenic radon maps. A case study in Castleisland, Co Kerry, Ireland. *Science of the Total Environment*, 894, 164965. <https://doi.org/10.1016/j.scitotenv.2023.164965>
- **Higgins, O.**, Caricchi, L. (2023) Eruptive dynamics reflect crustal structure and mantle productivity beneath volcanoes, *Geology*. <https://doi.org/10.1130/G51355.1>
- **Huang, W.**, **Stock, M. J.**, Xia, X.-P., Sun, X., Cui, Z., Liuyun, O., Zhang, J., Chen, X., Zheng, Y., Liang, H. (2023) Determining the impact of magma water contents on porphyry Cu fertility: Constraints from hydrous and nominally anhydrous mineral analyses. *GSA Bulletin*. <https://doi.org/10.1130/B36871.1>
- Marcus M. Key, Jr., **Patrick N. Wyse Jackson**, Madelaine McDowell and Merlynd K. Nestell (2023) Astogenetic morphologic variation in the bryozoan *Prophyllodictya gracilis* from the Middle Ordovician of Russia and inferred colony-wide feeding currents. *Papers in Palaeontology* 9(3), 1–13 (e1492). <http://dx.doi.org/10.1002/spp2.1492>
- **Patrick N. Wyse Jackson** and Duncan Hawley (2023) Richard Griffith's small scale geological map of Ireland (1853). *INHIGEO Anniversaries, IUGS E-Bulletin Issue 199*, 1–5. https://www.inhigeo.com/anniversaries/Wyse_Jackson,_P._N.,_Hawley,_D._Griffith's_Map_of_Ireland_170_years_ago.pdf
- Kaushal, N., Lechleitner, F. A., Wilhelm, M., Bühler, J. C., Braun, K., Ait Brahim, Y., Azennoud, K., Baker, A., Burstyn, Y., Comas-Bru, L., Goldsmith, Y., Harrison, S. P., Hatvani, I. G., Rehfeld, K., Ritzau, M., Skiba, V., Stoll, H. M., Szűcs, J. G., Treble, P. C., **Azevedo, V.**, Baker, J. L., Chawchai, S., Columbu, A., Endres, L., Hu, J., Kern, Z., Kimbrough, A., Koç, K., Markowska, M., Martrat, B., Masood Ahmad, S., Nehme, C., Novello, V. F., Pérez-Mejías, C., Ruan, J., Sekhon, N., Sinha, N., Tadros, C. V., Tiger, B. H., Warken, S., Wolf, A., Zhang, H., and the SISAL Working Group members (2023) SISALv3: A global speleothem stable isotope and trace element database, *Earth Syst. Sci. Data Discuss.* [preprint], <https://doi.org/10.5194/essd-2023-364>, in review.
- O'Sullivan, G. J., Hoare, B. C., Mark, C., **Drakou, F.**, **Tomlinson, E. L.** (2023) Uranium–lead geochronology applied to pyrope garnet with very low concentrations of uranium. *Geological Magazine*, 160(5), 1010-1019. <https://doi.org/10.1017/S0016756823000122>
- **Roseby, Z. A.**, **Southall, K.**, **Alvarez-Agoues, F.**, Cahill, N., McCarthy, G. D., **Edwards, R. J.** (2023) Two Centuries of Relative Sea-Level Rise in Dublin, Ireland, Reconstructed by Geological Tide Gauge. *Open Quaternary*, 9:3, 1-19. <https://doi.org/10.5334/oq.121>
- Scott, E. R. D., **Sanders, I. S.**, Asphaug, E., **Tomlinson, E. L.** (2023) Discussion of the unique “eclogitic” clast reported from Northwest Africa 801 (CR2) and the possibility of ejection of foundered crust from deep in a molten Moon-sized projectile. *Meteoritics & Planetary Science*, 1-11. <https://doi.org/10.1111/maps.14069>
- Walsh, C., Kamber, B. S., **Tomlinson, E. L.** (2023) Deep, ultra-hot-melting residues as cradles of mantle diamond. *Nature*, Volume 615, 450-454. <https://doi.org/10.1038/s41586-022-05665-2>

SCIENCE COMMUNICATION

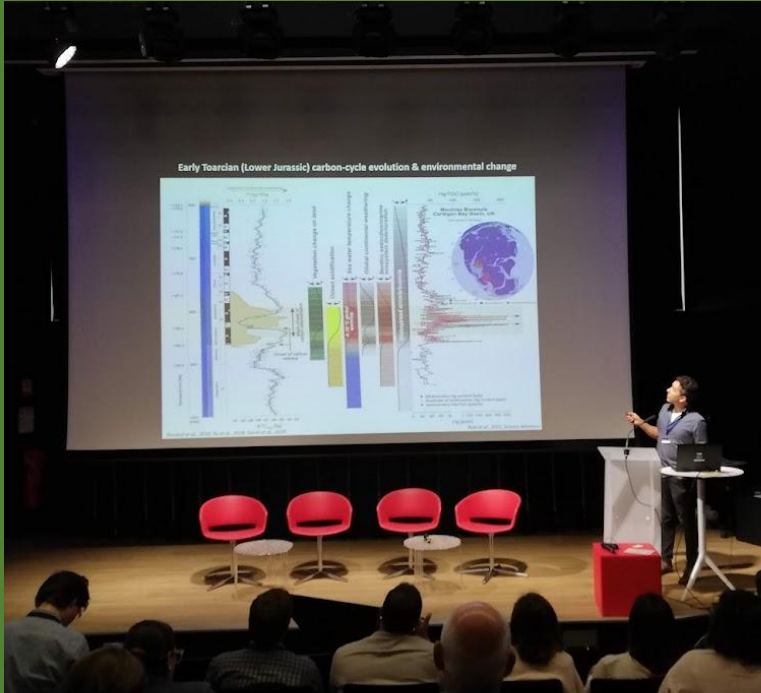
On the 21st of June to mark [Show Your Stripes Day](#), the [White Cliffs of Dover](#) were illuminated blue and red to highlight and visualise the stark change in climate.

Graphics and lead scientist: Ed Hawkins, National Centre for Atmospheric Science, UoR. Data: Berkeley Earth, NOAA, UK Met Office, MeteoSwiss, DWD, SMHI, UoR & ZAMG



CONFERENCES

Jerry Dickens, Micha Ruhl, and Blanka Kovács attended the 4th International Congress on Stratigraphy ([strati2023](#)) in Lille, France between 11th and 13th of July. Our Department was represented by several oral and poster presentations (8 abstracts in total).



CONFIDENTIAL HELPLINE

[NiteLine](#) is a non-profit, non-judgemental, non-directive, anonymous and confidential listening service run by students for students. Our service is completely free and open every night of term from 9pm to 2.30am through instant messaging and over the phone. We are run by a team of dedicated volunteer students who have undergone rigorous training with the intention of supporting our peers. Our motto is "no problem is too big or too small."

Free
Anonymous
No problem too big or too small

Freephone: 1800 793 793
Instant messaging: niteline.ie
9pm - 2:30 am every night of term

UPCOMING CONFERENCES

AGU 2023 Fall Meeting, [website](#)
11-15 Dec 2023 • San Francisco, USA

CONTRIBUTIONS

We want to hear from you! Have you got any news to share with the department? Any conferences, talks, publications or fieldwork you've been involved in? Please let us know at geossip.tcd@gmail.com to be featured in the next newsletter.

