

THE G(e)OSSIP

The official newsletter of the Geology Department

27 January 2022 | Issue 10

WELCOME

Welcome back! With the start of Semester 2, we've seen most COVID-19 restrictions have been lifted. Please remember that it is still mandatory to wear masks indoors and in face-to-face teaching.

A tremendous thank you to Hilde Koch and Adri Szucs for their input and dedication to *The G(e)ossip* over the past year. Although we are sad to see them go, we are happy to welcome Fay Amstutz to *The G(e)ossip* editorial team!

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.

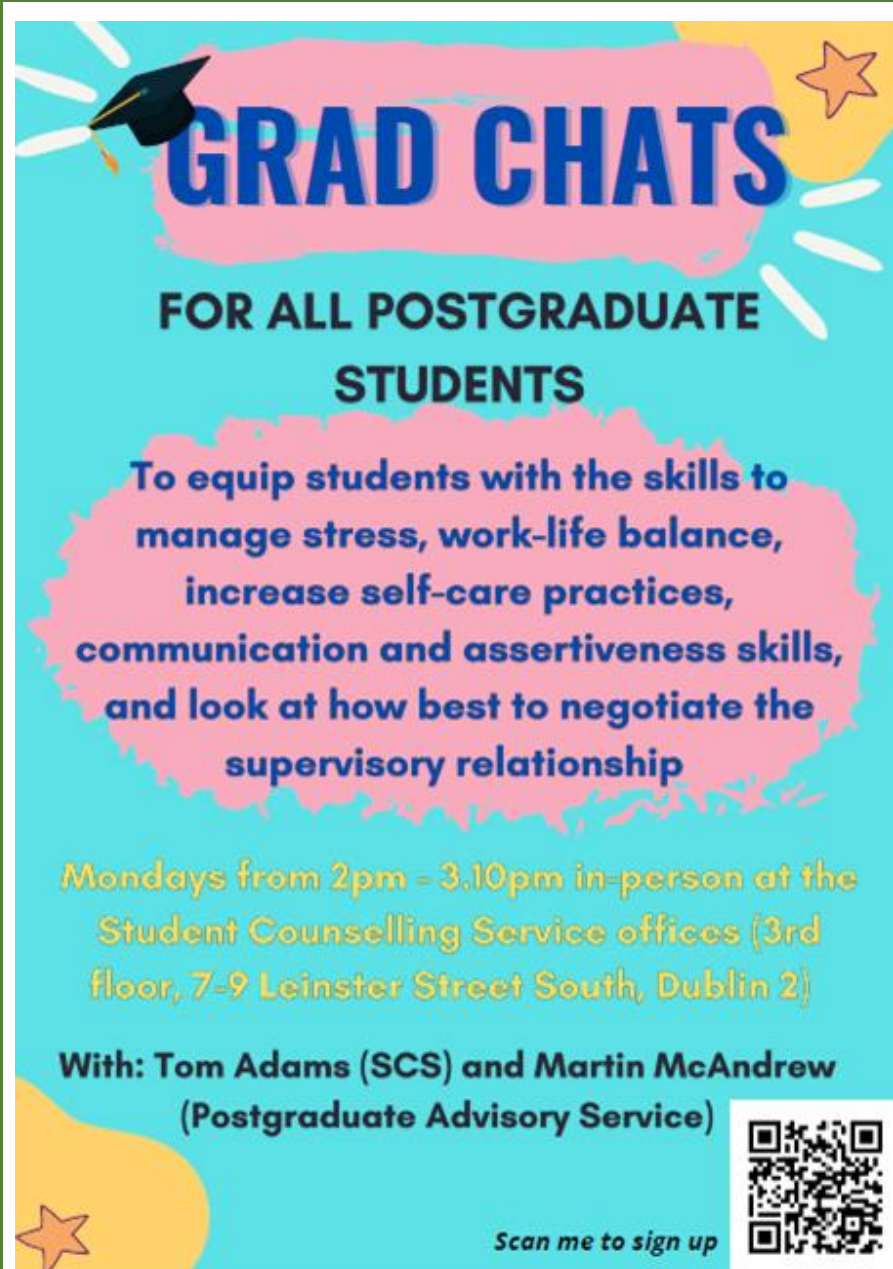
-The G(e)ossip Team

IN THE DEPARTMENT

A group of our postgrads took to the races and enjoyed an afternoon of go-karting! Team 'Mike Stock' came out victorious with Elliott Carter in 1st Place, Lydia Whittaker in 2nd Place, and Fay Amstutz in 3rd Place. Stay tuned for more events this semester!



(Pictured: top row Elliott Carter, Sarah Carty, Zoe Roseby, Lucy Blennerhasset; bottom row Fay Amstutz, Lydia Whittaker, Niamh Faulkner)




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 for sessions [here](#).

[Irish Geological Association](#)

27 January at 7 PM - Joint Geological Associations Lecture: Aileen Bohan, *Seafloor Mapping: From Inshore Ireland to the Abyss*. Click [here](#) to register.

[TCD Geography Seminar Series](#)

The TCD Geography Seminar Series will be held on Wednesdays at 1 PM via Zoom. Click [here](#) to register.

[TCD Geology Seminar Series](#)

The TCD Geology Seminar Series will be held on Fridays at 1 PM via Zoom. Click [here](#) for the list of Hilary Term seminars. A reminder that the seminar is **mandatory for 4th year Geoscience students and PhD students**.

[TCD E3 Seminar Series](#)

The TCD Ecology, Evolution and the Environment Seminar Series will be held on Fridays at 2 PM via Zoom. Email paynen@tcd.ie for more information or to sign up.

[UCD Earth Science Seminar Series](#)

The UCD School of Earth Sciences Seminar Series will be held on Wednesdays at 1 PM via Zoom. Email ucdseseminars@ucd.ie for more information.

VIVAS

Congratulations to two of our PhD candidates that successfully passed their online vivas in November and December 2021!

Almahdi Al Shawib defended his thesis titled *Spectral gamma ray analysis of sedimentary environments in early continental rift basins: Implications for petroleum exploration*.

Brendan Hoare defended his thesis titled *Constraints on the thermal conditions within the cratonic lithospheric mantle*.

COVID-19 UPDATE

Please continue to wash your hands, wear masks in all indoor settings, and social distance when possible. Make sure to stay up-to-date on all TCD statements [here](#).



College Health will run a pop-up Vaccination Clinic from 8-11 February, in the Exam Hall in Front Square. Students and staff are encouraged to participate in the vaccination and booster programmes to help ensure a safe return to campus. More information will be issued closer to the time.

PUBLICATIONS

Quentin Crowley and former Geology MSc graduate Elizabeth Tray recently published a paper in Fisheries Research titled *Investigating post-depositional alteration of trace elements in fish scales using tagged and recaptured wild salmon*. You can access the full text [here](#).

Micha Ruhl is a co-author on three recent publications. You can access the full texts below:
Dickson et al. 2021, *New constraints on global geochemical cycling during Oceanic Anoxic Event 2 (Late Cretaceous) from a 6-million-year long molybdenum-isotope record* in [Geochemistry, Geophysics, Geosystems](#).

Li et al. 2021 - *Geochemistry of the Lower Cretaceous limestones in the Eastern Tethys Gyabula Formation (Himalaya, southern Tibet): implications for the depositional environment and tectonic setting* in [Arabian Journal of Geosciences](#).

Dickson et al. 2022, *No effect of thermal maturity on the Mo-, U-, Cd- and Zn-isotope compositions of Lower Jurassic organic-rich sediments* in [Geology](#).

GEOLOGY IN THE NEWS

Underwater volcano erupts in South Pacific causing 40 km ash plume

Hunga-Tonga-Hunga-Ha'apai, a submarine volcano in Tonga erupted on the 15th of January 2022. The volcano lies along the Tonga archipelago, where the Pacific plate is being subducted beneath the Indo-Australian Plate. This eruption made headlines worldwide as it sent visible shock waves several thousand kilometers around the globe, many of which could be seen from space. The event caused a tsunami that penetrated the shores of Australia, the US and Russia, along with a large ash cloud and intense lightning strikes around the eruption region.

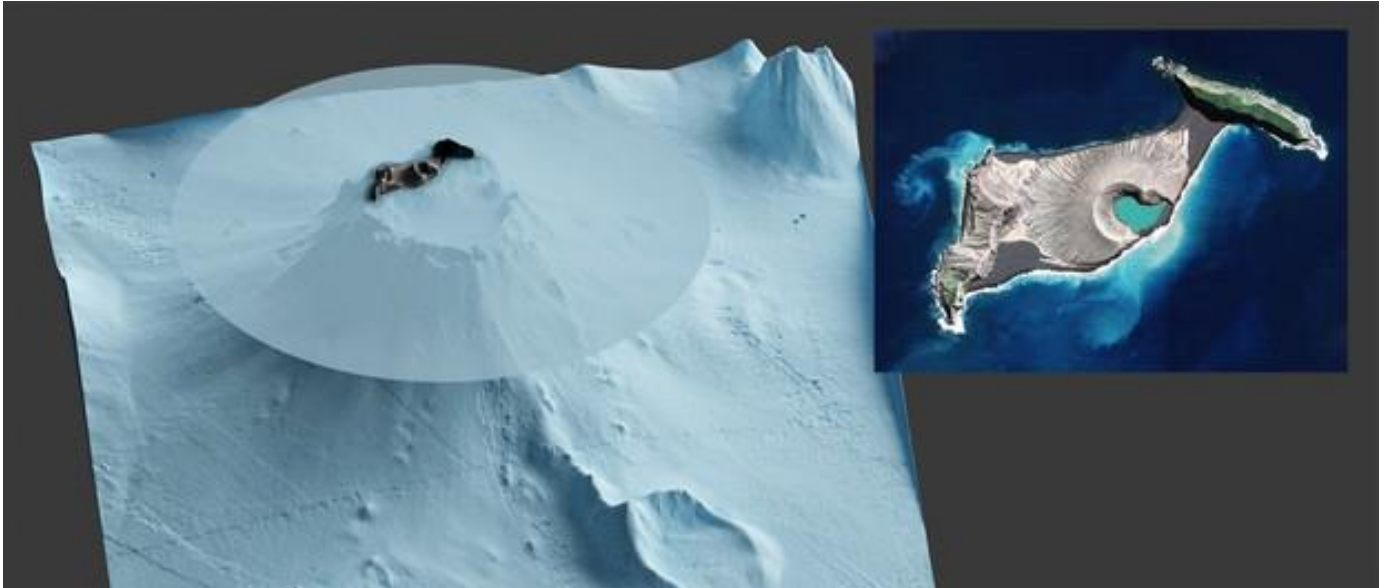


Photo credit: Frederik Ruys via [Science Focus](#)

Satellite imagery shows that the surrounding islands on the crater edge have significantly decreased in size, suggesting that the eruption has pulverised a large amount of rock, and likely caused caldera collapse. Such activity is a significant trigger for a tsunami due to the large displacement of water, however the tsunami may have also been caused by explosions underwater, propelling water away from the volcano.

The eruption is known as a one-in-a-thousand-year event, and satellite imagery now shows minimal activity aside from degassing. Although deposits from past eruptions of this magnitude suggest that further explosions are not ruled out. However, the submarine setting of the volcano makes it difficult to study and therefore difficult to predict future events.

Sources: [Space.com](#), [Science Focus](#)