#### **The Trinity College Dublin Botany Department Newsletter**

#### Accomplishments

#### Botany welcomes Midori Yajima

I am an Italian MSc graduate in ecology, ecosystem and conservation biology, with a background in biology and plant ecology. I am fascinated by the interface of ecological and social systems, which brought me to develop my thesis in Bergen (Norway), where I worked on investigating long-term humanenvironmental interaction. I'm convinced on the need of an intersectional approach to environmental-related science: after graduating I started exploring the scope of sustainability sciences and engaged in a variety of projects



between environmental activism, citizen science, and science communication.

Midori will be working with Jenny McElwain on a long-term environmental monitoring program. She will be gathering year one baseline data of key tree species - selected for their botanical, ecological, and cultural value - assessing their physiological response to rising CO2 and pollution (PM 10 and 2.5).

#### Awards!

#### The Nature+ Energy project won The Sustainable Development Award at the Wind Energy Ireland 2022 awards.

Thanks to **Emma King** (RA) and **Anthony Gibbons** (PhD student) for accepting the award on behalf of the whole team (**Ian Donohue**, **Yvonne Buckley, Jane Stout, Andrew Parnell**). The award was dedicated to Dr Aoibheann Gaughran, who was project manager of Nature+ Energy.



# Nature+Energy

#### Awards!

Some of you may remember the first Thai Ph.D. student in the Botany **Department** - **Pranom Chantaranothai** – who is now **Emeritus Professor** in **Khon Kaen University**, Thailand. **The great news** is that Pranom has just been presented **by King Rama X** (HRH King Vajiralongkorn) of Thailand with the <u>Dushdi Mala gold medal</u>. It is a huge honour being the highest ranked medal awarded for services to the State (i.e. Thailand) in the Arts and Sciences.



#### Awards!



**Pranom Chantaranothai** with the Dushdi Mala gold medal

#### **FORAGING** - Wild garlic pesto

A recent exploration in search of **wild garlic** was successfully carried on by some of our **fabulous postgraduates** (and friends) in **Knockink Wood** (**Wicklow**). The hunting ended up in a big round of pasta with fresh, green-fluorescent garlic pesto. The result was incredibly *mamma mia*!

#### Try our delicious product: there will be a jar to taste in the kitchen!



#### Wild garlic pesto recipe - Ingredients for 8 people

- 1.3 Kg Pasta
- ► 100 g leaves
  - 160 g pine nuts
  - 80 g parmesan
  - Extra virgin olive oil
  - 1 full glass of hot cooking water
    - A pinch of salt during mixing



#### **SAVE THE BEES Campaign**

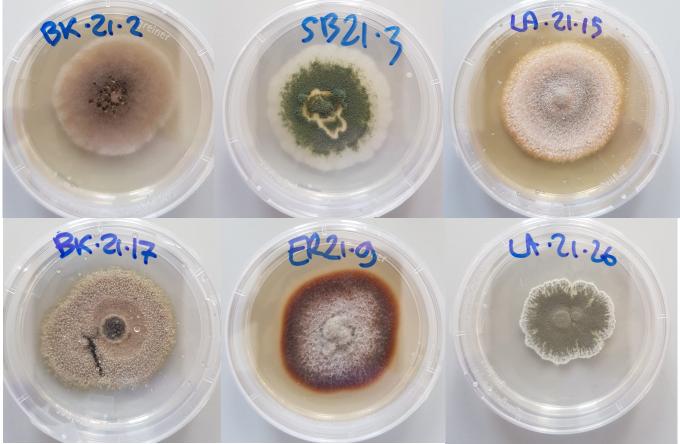
The SuperValu "Save the Bees" Campaign was launched in Botany by Minister for Rural and Community Development, Heather Humphreys, SuperValu MD Ian Allen, and All-Ireland Pollinator Plan co-founders Jane Stout and Una FitzPatrick. The campaign, in collaboration with the All-Ireland Pollinator Plan, has sent packs containing guidebooks, posters and bookmarks to every primary school in Ireland. School children are being encouraged to provide "pit-stops for bees" by growing bee-friendly flowers in their gardens, and to collect cards featuring Irish bees and flowers from SuperValu stores. For more see here.



#### Beautiful Endophytes - there is a hidden collection of fungal isolates stored in the fridges of the labs in the School of Natural Sciences

Everybody knows the Botany Building for its historical Herbarium. Only a few are aware of the collection of fungal cultures that have been stored along the years, as a result of research projects focused on this class of microorganisms. There are hundreds of petri plates stored in fridges and card boxes. As a side project of his PhD, **Diego Bianchi** would like to take action on this aspect and valorise this microbial heritage through highresolution pictures and artistic collaborations.





#### **Gran Canaria expedition trip**

# The **Plant and Environmental Sciences Field Skills module** was back in action this year – **36 students and staff** spent a week in **Gran Canaria**.

Key aims of the module were to understand why certain plants grow in different places – the morphological, physiological and ecological traits that have evolved for life in particular environments and the impacts of human activities. Students learned how to sample vegetation in the field accurately and representatively, conducted *Environmental Impact Assessment* scoping exercises, and designed, conducted, analysed and presented mini research projects.



#### **Projects**

Jordan Chetcuti has been working with Jane Stout for the last two years on creating a bumblebee agent-based model as part of the PoshBee project.

Jordan finished up with Trinity College on the 31<sup>st</sup> of March. He will, however, continue this bumblebee work and start to work on other species in the <u>Social-</u> <u>Ecological Systems Simulation centre</u> of the <u>Department of Ecoscience</u> at <u>Aarhus</u> <u>University</u> from the 19<sup>th</sup> of April. This time, moving to Denmark from the beginning of April. Jordan can be reached on Twitter <u>@JordanChetcuti</u>."



#### **Publications**

A paper in which John Parnell is one of the co-authors (<u>World Flora Online:</u> <u>Placing taxonomists at the heart of a definitive and comprehensive global</u> <u>resource on the world's plants</u>) published by Wiley in *Taxon* **is among the top cited papers of the journal.** 

#### We are hiring! - TERRAFORM Project

Application deadline: 20th of April 2022

Two exciting PhD Scholarship positions on the Evolution of Paleotraits in Paleozoic and Mesozoic Plants are available in our ERC funded TERRAFORM project with Prof. Jennifer McElwain. PhD candidates will receive necessary training and support from international supervisors and team peers. They will have the chance to conduct research in the cutting edge Variable Atmosphere and Light Laboratory or take part in fieldwork in Cretaceous cuticle bearing fossil localities across Europe.

**TERRAFORM aims to investigate** the biosphere impacts on the Earth system over geological time. It will specifically address **how the evolution of plant traits impacted the carbon, nutrient and hydrological cycles** in deep time.

TERRAFORM will be a labour-intensive team-based research project with experimentation, biogeochemical analyses and preparation of varied plant material. The project will use well-established records of paleo-atmospheric composition together with novel paleo-trait proxies and plant weathering experiments to interrogate how plant functional trait evolution TERRAFORMed the Earth. Shifts in carbon assimilation, litter decomposition, evapotranspiration and the plant biochemical niche will be tracked over a 300-million-year record of land plant evolution to improve understanding on how the terrestrial biosphere modulates the long-term carbon cycle via weathering of silicate rocks.

For more information and to apply click <u>here</u> and <u>here</u>

#### **Athena SWAN/EDI Newsletter**

#### **Updates**

The School of Natural Sciences Athena SWAN/Equality Diversity and Inclusion (EDI) committee are in the process of working towards **silver accreditation**. We are currently collating information and working through the application process. **This is a sizeable project and will span the next few months onwards**.

#### News

The **11th February** was **International Day of Women and Girls in Science**. Designated by the UN, the day serves to spotlight females in STEM. Although it is a day to celebrate their successes, it is also an opportunity to draw attention to the gender inequality that still exists within science and what we can do to improve it. **If you missed it** there were some great highlights over on twitter using **#womeninscience**, including on the TCD twitter account **@tcddublin**.

#### Resources

**Speak Out** was launched in **November 2021**, a tool **to anonymously report bullying, violence and harassment.** You can find the Speak Out tool and relevant supports on the new webpage <u>here</u>.

If you would like more information, please view our <u>website</u>. You can contact the Athena SWAN/EDI committee at <u>fraser.mitchell@tcd.ie</u>



#### ÈTICO, Sartoria Marchigiana - Tailors from the Marche Region, Italy

Marta and Valentina are two girls passionate about the recovery of ancient crafts, such as tailoring and natural dyeing. Their brand, Ètico - Sartoria Marchigiana, was born in 2019 from asking themselves how they could possibly reduce the environmental impact caused by clothing production.



"Our job is to go for a walk in the woods, collect the leaves of the plants we know and that can be used for printing, place them on the fabric which is then rolled around a wooden support and steamed. Et voila, after a few days we have the imprint of the leaves printed on the fabric».

"Every item is unique. The shades of natural colors and botanical prints do not allow for identical replicas, it is nature that decides, alchemy".

MARCH 2022

#### ÈTICO, Sartoria Marchigiana - Tailors from the Marche Region



MARCH 2022

#### ÈTICO, Sartoria Marchigiana - Tailors from the Marche Region



#### **PHYTOBYTES** needs your input!



Whether you are student or staff, please send any news you have, big or small, to Diego D. Bianchi (*dbianchi@tcd.ie*) with the subject heading "Phytobytes".