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# BOTANY AND PLANT SCIENCE



**Earth & Life Sciences**  
School of Natural Sciences



OLLSCOIL NA GAILLIMHE  
UNIVERSITY OF GALWAY



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# 320,000+ SPECIES OF PLANTS

- Botany and Plant Science includes the study of:
  - Plants
  - Algae
  - Fungi
  - Lichens
  - .....and their interactions with other organisms and the abiotic environment

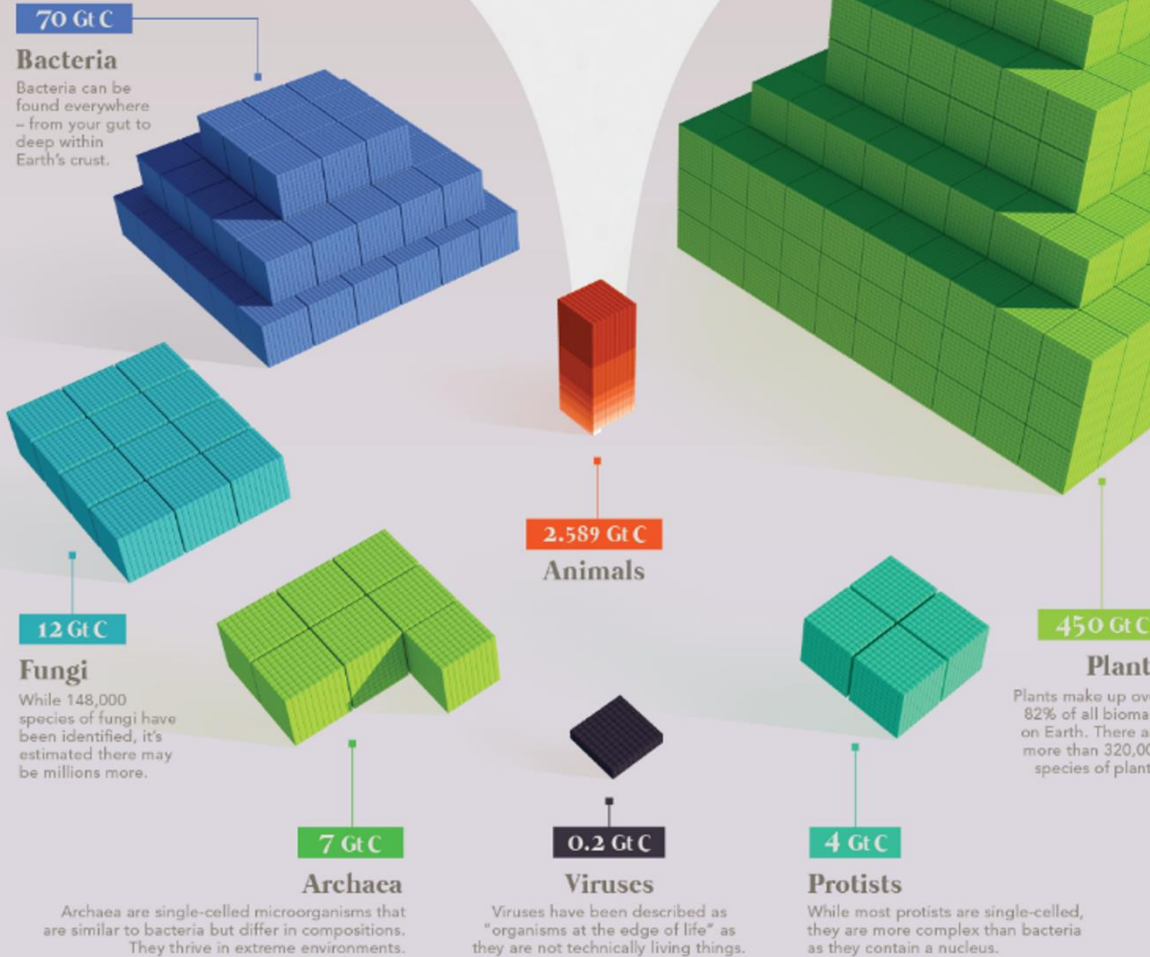


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# PLANTS MAKE UP 82% OF ALL BIOMASS ON EARTH!

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## Comparing All Biomass of Life on Earth



Humans make up approximately **0.01%** of all biomass on Earth.

SOURCE Bar-On, Y.M., Phillips, R., Milo, R., 2018. The biomass distribution on Earth. Proceedings of the National Academy of Sciences 115, 6506–6511. doi:10.1073/pnas.1711842115

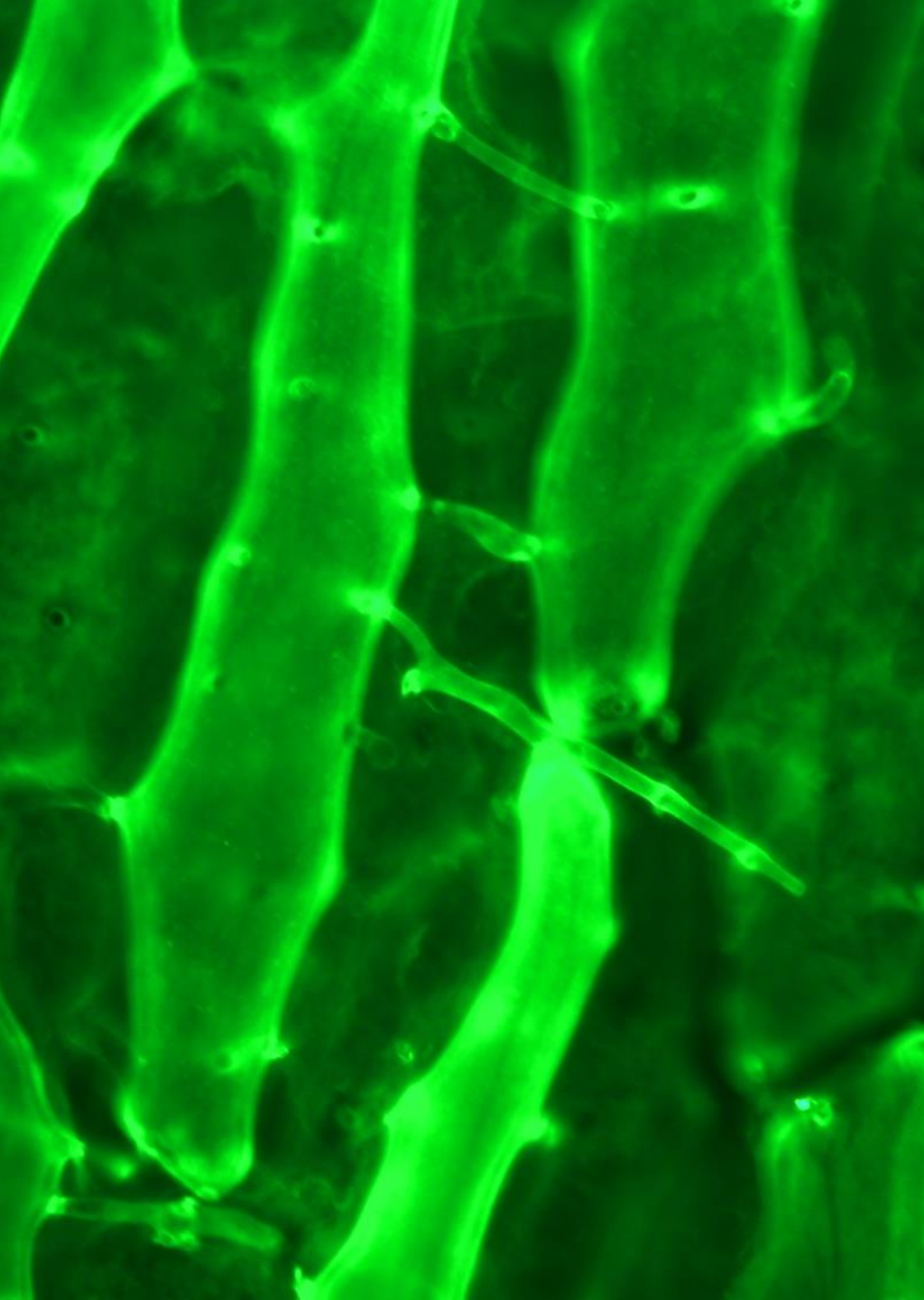


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# FROM ECOSYSTEM

....





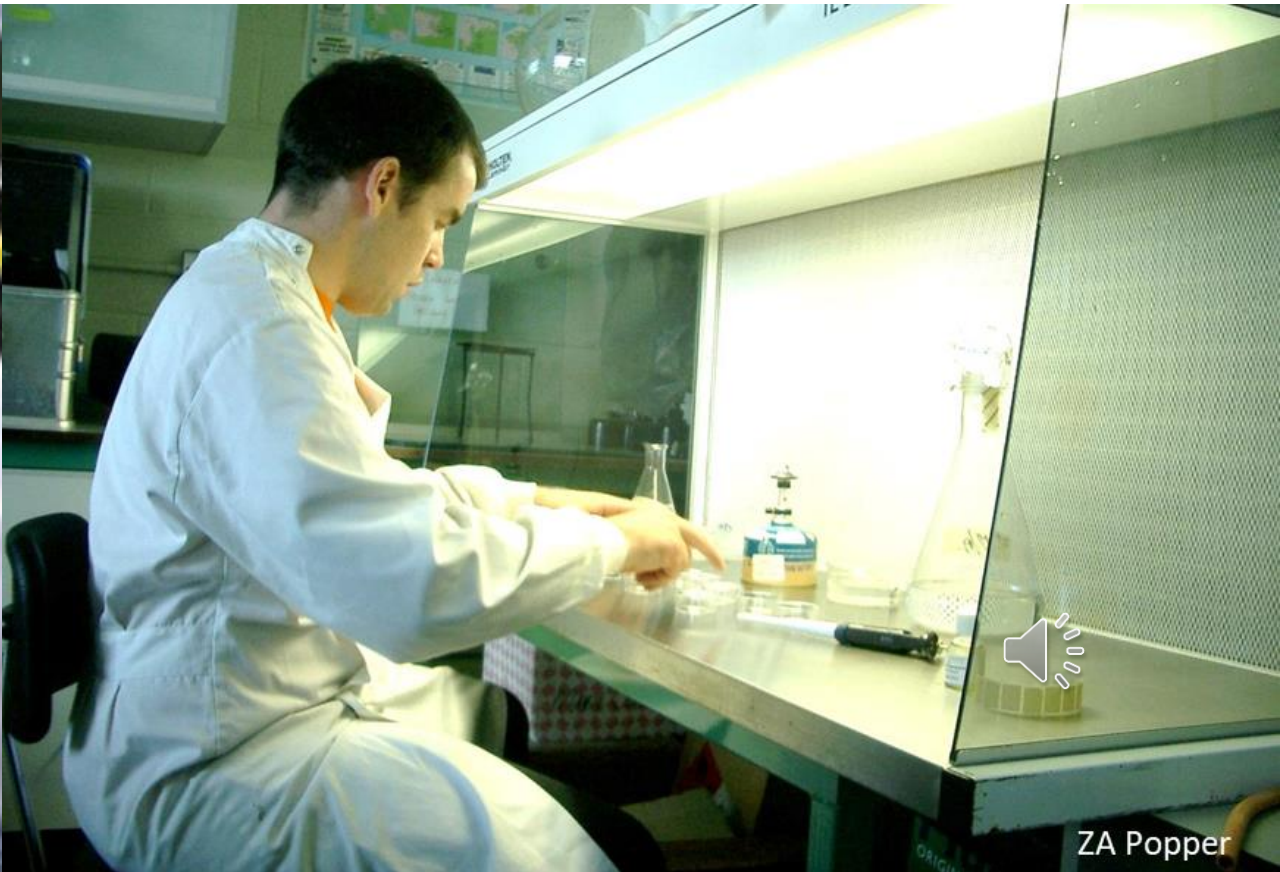
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.....TO CELLULAR



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STUDIES INCLUDE LAB-, FIELD-, LECTURE/TUTORIAL/SEMINAR- BASED



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# THE UNIVERSITY OF GALWAY IS IN A UNIQUE ENVIRONMENT: FLORA, COMMUNITY AND ECOLOGY



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# THE UNIVERSITY OF GALWAY IS IN A UNIQUE ENVIRONMENT: FLORA, COMMUNITY AND ECOLOGY





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**INCLUDING THE  
CAMPUS!**

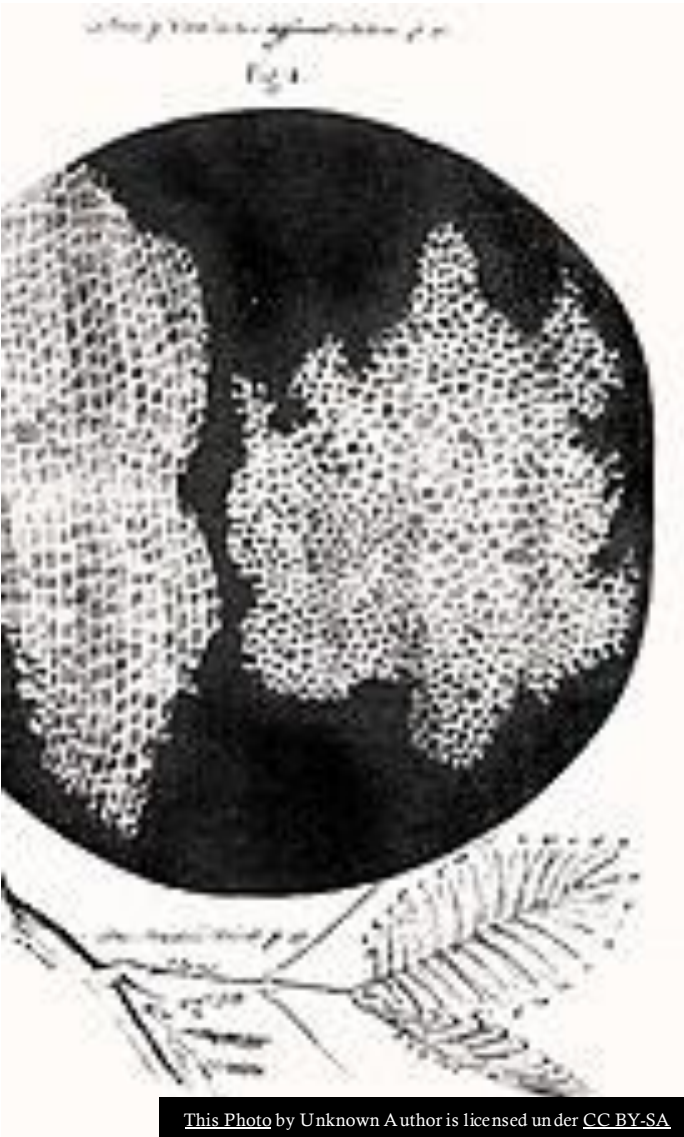
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# WHY STUDY BOTANY AND PLANT SCIENCE?





Flower position



Axial

Stem height



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## FUNDAMENTAL SCIENTIFIC KNOWLEDGE DISCOVERED USING PLANTS

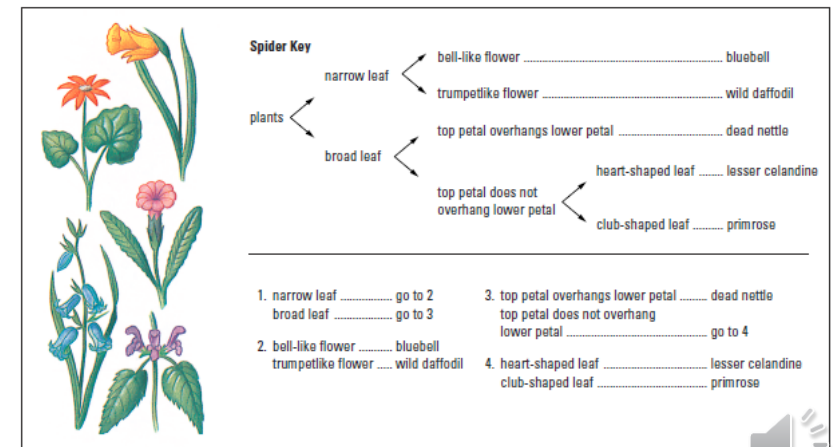
- Cells
- Genes
- Transposons
- .....



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# OPPORTUNITY TO LEARN AND APPLY MANY TECHNIQUES

- Lab-, Herbarium-, and field- based!
- Culture techniques...
- Plant and algal identification
- Microscopy
- Biochemical analyses .....
- Survey techniques...
- Ecological impact studies





# OUR GRADUATES



**Finbarr McCann:**  
**Environmental Consultant**  
Graduated 2022  
School: Enniskillen Grammar,  
Co. Fermanagh



**Teagan Reinert: PhD Student**  
**in Molecular Palaeobotany**  
**and Evolution, Edinburgh**  
**University**  
Graduated 2020 (BSc), 2021  
(MSc)  
School: Haddon Township High  
School, New Jersey, USA



**Eithne Browne: PhD**  
**Student in Plant Pathology**  
**and Epidemiology, NIAB,**  
**UK**  
Graduated 2016 (BSc), 2018  
(MSc)  
School: The Royal and Prior  
Comprehensive School,  
Raphoe, County Donegal



**Niall Higgins: Senior**  
**Business Development**  
**Manager, Applied Health**  
**and Nutrition, Kerry Group**  
Graduated 2007 (BSc), 2011  
(PhD)  
School: St. Josephs College, The  
Bish, Galway



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# KNOWLEDGE ABOUT PLANTS!

- Botanist Felipe Zapata
- <https://discoverandshare.org/2022/01/28/the-botanist-behind-encantos-plants/>





**Botanists are disappearing – just when the world needs them most**

Published: July 13, 2022 6:03pm BST







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# USEFUL LINKS:

Botanical Society of Britain and Ireland (<https://bsbi.org/>)

Botanical Society of America (<https://cms.botany.org/home.html>)

What is Botany? (<https://cms.botany.org/home/careers-jobs/careers-in-botany/what-is-botany.html>)

Some Frequently Asked Questions about a Career in Botany  
(<https://cms.botany.org/home/careers-jobs/careers-in-botany/some-frequently-asked-questions-about-a-career-in-botany.html>)

Why Choose a Career in Botany? (<https://cms.botany.org/home/careers-jobs/careers-in-botany/why-choose-a-career-in-botany.html>)

Studying Plant Science Is Vital  
(<https://www.youtube.com/watch?v=s9GZqCryKaQ>)

Plant Sciences: Why I Study Plants  
(<https://www.youtube.com/watch?v=i05x18nIPNs>)

Why You Should Major in Plant Biology  
(<https://www.youtube.com/watch?v=ZkfQWTjyk8o>)

