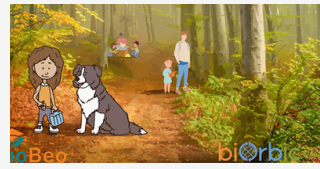


BioBeo Buzz Feabhra 2025

GIVING A VOICE TO ALL IN THE BIOECONOMY



Hi Everyone and welcome to our February edition of BioBeo Buzz. This month we are jam packed with news about the exciting launch of a brand new comic, information about some fantastic upcoming Bioeconomy webinars, a new careers profile and a fascinating read about a great way to use spent coffee grounds. Plus we have a new nature activity for you. Don't forget you can find all of our past issues of BioBeo Buzz along with lots of other great resources from the BioBeo project including videos and comics [here](#).

Launch of Answering the Curlew's Call: A Comic Connecting Language, Land, Heritage, and the Bioeconomy

On Thursday, February 20th, 2025, [Answering the Curlew's Call](#) was officially launched at the BiOrbic/BioBeo Bioeconomy Education Workshop in UCD. This beautifully illustrated comic, written by Laoise Ní Chléirigh, Máire Nic an Bhaird, Barry J. McMahon, and Thomas P. Curran, with artwork by Nathan T. Wright, explores the deep connections between language, land, heritage, and the bioeconomy.

The event brought together a diverse group of people, including lecturers, student teachers, school principals, curlew conservationists, policymakers, government officials, and European Commission officials. The comic was launched by Mary Colwell from Curlew Action UK and John Hughes, Principal of Scoil Náisiúnta Naomh Ailbhe, Geevagh, Co. Sligo, both passionate advocates for conservation and education. An [Irish language](#) version of the comic is also available titled 'Ag Freastal ar Ghlaio an Chrotaigh'.

Answering the Curlew's Call

A Beo and Raja adventure



Illustration by Nathan T. Wright
Story by Laoise Ní Chléirigh, Máire Nic an Bhaird,
Barry J. McMahon and Thomas P. Curran



At its core, Answering the Curlew's Call draws inspiration from Douglas Hyde, who understood the power of language, culture, and land in shaping national identity and societal change. Just as Hyde connected these elements to the pursuit of independence, this comic highlights how embracing our heritage and environment and protecting native species, can help us move toward a sustainable bioeconomy. Just as Hyde connected these elements to the pursuit of independence, this

comic highlights how embracing our heritage and environment can help us move toward a sustainable bioeconomy. Through storytelling, the comic encourages readers to see the value in our landscapes and traditions, fostering a sense of care and responsibility for the land we call home. If we can recognise the deep ties between language, culture, and ecology, we can build a future where communities feel empowered to protect and embrace the bioeconomy.



This launch was more than just the introduction of a new comic – it was a call to action. By understanding and respecting our shared heritage, we can take meaningful steps toward a more sustainable and connected future.

You can download the comic in [English](#) or [Irish](#) from the UCD Research Repository- Enjoy!

Opportunities for Educators with FEE (Foundation for Environmental Education)



The Foundation for Environmental Education are delighted to present a series of online workshops for educators over the next couple of months.

These workshops are targeted to teachers interested in outdoor/environmental education and how they can start engaging with bioeconomy education. You can be one of the first educators to get a look at the educational resources developed by the BioBeo project as well as more from the FEE network.

The next workshop will take place on Thursday, March 27th at 15:00 CET and will dive into ways to engage both students and parents in Environmental Education!


Register to take part [here](#)

Online Workshops for Teachers
27 Feb & 27 March 2025 @ 15:00 CET


Workshop 1: Connecting with Nature through Bioeconomy Education

Workshop 2: How to Engage Parents in Environmental Education

REGISTER HERE



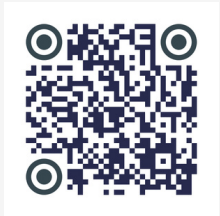
REGISTER HERE



FEE Global Action Days



Join FEE for the 2025 Global Action Days campaign, a fortnight-long celebration dedicated to Ecosystem Restoration. This year's campaign aligns with FEE's work for the UN Decade on Ecosystem Restoration. The Global Action Days will run from 22 April (World Earth Day) to 6 May, 2025. Check back next month to hear what is in store on the Bioeconomy side! Scan the QR code to register to participate and join the 207,154 educators already signed up in 107 countries!!



Beavers- Nature's Superheroes!

We all know that nature provides us with so much- from clean air, reducing pollution, carbon capture, products, enjoyment and recreation, and so much more. It can be hard to put a price on its value. But a group of Beavers in the Czech Republic have recently done just that! It is estimated that one group of Beavers has saved Czech tax payers over €1.16 million!!

You might be wondering if Beavers deal in Euros and how they have come up with this figure. The answer lies on an old army training site near the Klabva river. A dam was needed to protect the river from flooding and sediment from nearby ponds and planning applications had been submitted to get started in 2018 but delays had meant that the process not started..



But, beavers wait for nobody! Once a group of 8 moved in, they created their own dams using their powerful teeth to chop down trees and vegetation and combining those with mud and rocks. These beavers made a series of dams that resulted in a biodiverse wetland with pools and canals. Not only did they solve the potential flooding problem but they also created new habitats for lots of different species including insects, fish and birds. Looks like there is no need for that planning application to go through! You can find out more about this super powered work in this [National Geographic article](#).



Recycling Coffee Grounds and Plants for a Greener Future by Shivam Garg, UCD Masters Student

This project was completed as part of my undergraduate studies in the University of Petroleum and Energy Studies (UPES). This work is highly important because it shows how kitchen waste can be transformed into something useful. We used leftover coffee grounds (the residue after making coffee) and *Lantana camara* (an invasive plant species commonly found in Southeast Asia). We collected these materials, dried them, and then turned them into bio-oil, a type of oil produced from biomass.

You might wonder why we used coffee grounds. The answer is that waste coffee grounds are readily available and contain high fat content, which leads to a better yield of oil.

The process we used to make bio-oil is called pyrolysis, where we heat the material in the absence of oxygen at very high temperatures, up to 700 degrees Celsius. This process results in three products: bio-oil, biochar, and gas.

The biochar is the black residue left behind, similar to the ash produced when paper or wood is burned. We asked ourselves, "Can biochar be used for something else?" To explore this, we tried using biochar to clean water that was contaminated with heavy metals, which are dangerous for human health.

To test this, we added a few grams of heavy metals to water and then added the biochar. After a few hours we tested the biochar to see if it had absorbed any of the harmful substances. The results showed that the biochar had successfully absorbed a significant amount of heavy metals.

This project is important because it shows that we don't always have to throw away waste. Instead, we can use it to create clean, renewable energy and even help clean our water. By rethinking how we use waste, we can contribute to making the world a better and greener place!

 **Bioeconomy Matters Podcast**

[Bioeconomy Matters](#) - your daily dose of sustainability! Tune in this month to hear all about protecting the environment in bioeconomy!

In [this episode](#), Davyth Stewart, former Unit Head of the INTERPOL Environmental Security Programme, shares his knowledge in environmental crimes. Aside from the complexities of dealing with crime, they have the potential to grow as the economy becomes more biobased.



Lantana camara flower



 **Joke Spot** 

Q: Why do birds fly south in the winter?

Answer: Because it's too far to walk!

Q: What kind of bird works at a construction site?

Answer: The crane!

Nature Quiz



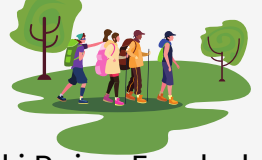
You have heard about the great work done by Beavers in the Czech Republic but what else do we know about them? Eurasian beavers are increasing in numbers in Europe and have been reintroduced to 25 countries. But which of these statements is true?

1. Beavers have recently been reintroduced to Ireland
2. Beavers have never lived in Ireland
3. Beavers were once common in Ireland but are no longer present

Answer on the last page!

Bata Taistil

This article is available 'As Gaeilge' or in English below.



Scríobh Dylan , Grace , Alice agus Andrea an t-alt seo. Is scoláirí oideachais iad i Roinn Froebel, Ollscoil Mhá Nuad.

Réamhrá

Is rudaí pearsanta iad bataí taistil. Tá gach siúlóid difriúil agus fiú má shiúlann tú an bealach céanna gach lá, feicfidh tú rud éigin difriúil gach uair. Nuair atá tú amuigh, cuir tús le do bhata taistil. Is féidir leat rudaí deasa éagsúla a nascadh leis an mbata taistil.

Déan machnamh ar na ceisteanna seo

"Cé leis an cleite seo?"

"Ainmnigh an crann seo?"

Is bealach iontach é an bata taistil chun tú féin a nascadh leis an timpeallacht.

Áiseanna

Olann

Siosúr

Rudaí ón gceantar m.sh cleite, bláthanna, duilleoga, féar



Céimeanna

Céim 1: Bailigh cleití, clocha, cipíní, bláthanna ón gceantar.

Céim 2: Cuir ar do bhata iad le holann.

Céim 3: Úsáid siosúr más gá.

Céim 3: Taispeáin an bata taistil do dhaoine eile agus labhair faoi.

Céim 4: Is féidir é seo a úsáid agus a thaispeáint sa seomra ranga le go bhfeiceann gach duine é

Céim 5: Nó cuir an bata taistil ar an mballa i do theach!

Min



Crann Feá

Dorcha



Crann Iúir

Tanaí



Crann Fuinseoige

Tanaí agus Gearr

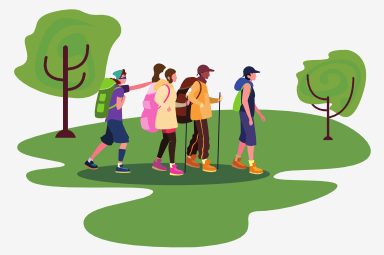


Crann Beithe

Meitseáil do bhata taistil leis an gcrann ceart.



Journey Sticks



This piece was written by Dylan , Grace , Alice and Andrea, students of the Froebel Department in Maynooth University.

Introduction

Journey sticks are personal keepsakes. Every hike is different and even if you walk the same route each day, you will notice something different each time. While out on your journey, start by finding a journey stick. You can put things you see on your journey stick. Take time to consider things like 'Where did this feather come from?' or 'What tree is this?'. Overall, journey sticks are a great way to connect with your surroundings and engage with nature.

What you need:

- Wool
- Scissors
- Wire/String
- Things from your area, for example, feathers, flowers, berries, leaves, grass



Step to make it:

- Step 1: Collect feathers, stones, pebbles, flowers from your area.
- Step 2: Attach them to your stick with string.
- Step 3: Use scissors if you need to.
- Step 3: If you can, show it to others and discuss your results.
- Step 4: This can be used and displayed in a classroom for all to see.
- Step 5: Or put it on the wall at home!



Starter Activity

Once you have made your journey stick, you could find out what species of tree your stick came from. What do you notice about your stick? Can you match it to a tree The Beech tree has a smooth stick. The Yew tree has dark sticks. The Ash Tree and Birch tree both have skinny sticks, but the birch sticks are shorter, as you can see in the picture. Good luck and enjoy the local nature!



Career Profiles:

Name: Tricia Beecher

Role: Conservation Ranger with National Parks and Wildlife Service (NPWS) in Ireland



AN OVERVIEW OF YOUR JOB:

Conservation Rangers have a very varied job. It includes conservation management, monitoring species and habitats, enforcing wildlife legislation and engaging with the public.

HOW LONG HAVE YOU BEEN IN THIS ROLE?

I have been a Conservation Ranger for 2 years and I've worked in different environmental and conservation jobs for 12 years. I previously worked in the Burren National Park in Co. Clare and the Grasslands National Park in Canada.

WHAT'S THE FAVOURITE PART OF YOUR WORK?

Working on different conservation projects and learning new skills. My favourite project so far has been the White Tailed Eagle Reintroduction Project. From feeding them in captivity to watching them take their first flight, it is just amazing! I am learning how to operate our boats so we can go out on the lakes to monitor the eagles.

WHERE ARE YOU USUALLY BASED?

Killarney National Park, Co. Kerry, I spend most my time outdoors in the National Park but I do spend some time in the office, writing reports and preparing for different projects.

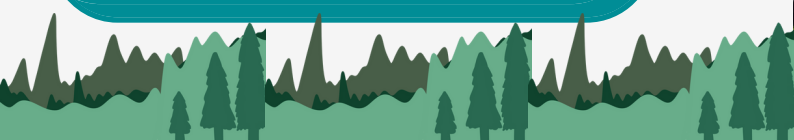
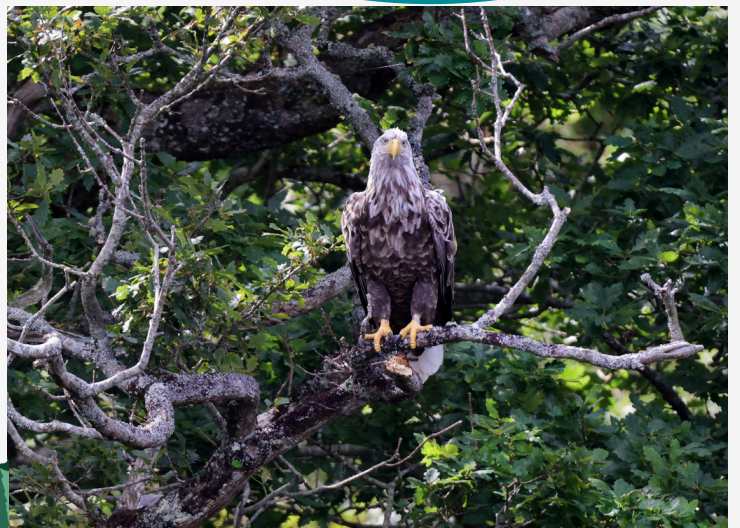


WHAT'S THE MOST CHALLENGING PART OF YOUR WORK?

The weather!! Safety is our priority so we change plans for remote hikes or boating trips if the weather conditions aren't right. The lakes water levels fluctuate quickly so we lose access to parts of the National Park due to flooding.

A TYPICAL DAY...

No two days are the same but Duty Ranger has to be covered 7 days a week so we each do a day. We answer any phone calls, respond to incidents, patrol the National Park and make sure everything is ok.



HOW DID YOU GET INTO THIS CAREER?



I grew up in the countryside and always had an interest in being outdoors adventuring and observing the amazing nature around me. I went on to study Applied Ecology for my bachelor's degree and Wildlife Biology and Conservation for my master's degree.

HELPFUL TIPS

WHAT ADVICE WOULD YOU GIVE TO A YOUNG PERSON INTERESTED IN THIS CAREER PATH?

You will be forever learning about nature so start with a species or habitat that you like, find out some information about it online or at your local library. You could look for citizen science projects in your area or start recording your biodiversity findings in your school grounds on the [National Biodiversity Data Centre website](#).

WHAT WORK EXPERIENCE, QUALIFICATIONS OR TRAINING WOULD YOU RECOMMEND FOR GETTING INTO THIS CAREER?



Any outdoor skills like mountaineering, boating, kayaking or diving are useful skills to have. Keeping fit and becoming an experienced hiker prepare you for long days out on the hills.

BESIDES FORMAL QUALIFICATIONS, WHAT SKILLS OR TRAITS ARE MOST USEFUL FOR YOUR TYPE OF WORK?

Wildlife ID skills are an important part of the job. There are some great resources and free courses online to help you get started and get the eye in for identifying different flowers, insects, birds or trees.

Nature Quiz Answer



The correct answer is.....

2. Beavers have never lived in Ireland (but maybe they would be a welcome addition!)



Thanks for reading! You can subscribe or unsubscribe from the newsletter [here](#) and make sure you check out the BioBee website by scanning the QR code! Buzz you again soon!



Get Involved and discover more with the Biodiversity Awareness Programme of the NPWS

Notice Nature on:
[Facebook](#)
[X \(Twitter\)](#)
[Instagram](#)

If you want to learn more about Killarney National Park you can check out the website [here](#) or follow on Instagram [here](#).



An Roinn Tithíochta,
Rialtais Áitiúil agus Oidhreacht
Department of Housing,
Local Government and Heritage

