



Wordcloud based on EBNet members' areas of interest (see 'What is Environmental Biotechnology?'

EBNet Newsletter - November 2025

New

Stay connected to keep current with the latest in Environmental Biotechnology. Help us by keeping your contact details and preferences up-to-date - see links at the end of this Newsletter to update details or unsubscribe.

What is Environmental Biotechnology?

This may seem a strange question for a Network with **Environmental Biotechnology** as its title.

But based on experience from the past 6 years, most people don't know — and even those who think they do know very often don't agree. Thus a recent paper on the subject by the EBNet Management Team, plus some of our key supporters: see Publications section for details. It's light-hearted, but not exactly a light read [maybe skip the lit review, and go on to the jokes...?]. So now we have the animation, the Social Sciences WG reports and presentation, our ECR "I am an EB..." statements - and this paper. Watch this space as we continue raising awareness of this vital, fascinating and all-too-often under-valued discipline.

AF and Biochar WGs at the BBNet Conference

At our sister-NIBB's invitation, <u>Biochar WG</u> Lead Dr Meredith Barr and <u>AF WG</u> co-Lead Dr Yue Zhang attended the 4th BBNet Conference on *Future Prospects for Biorefining: Feedstocks, Technologies & Products* from 15-17 Oct 2025 in Sheffield. Their presentations on <u>Integrating Thermal and Bio-Conversion and the Future of the EBNet Biochar WG</u> and <u>AF WG and Anaerobic Fermentation in the circular economy</u> are now available on EBNet's YouTube channel.

Biomethane and Biorefineries - a perfect match?

EBNet Director Prof Sonia Heaven attended a joint meeting of IEA Bioenergy's <u>Task 37</u> and <u>Task 42</u>. The 3-day meeting included matchmaking sessions between the two groups and a very successful public event on *Biorefineries and Biomethane*, as well as visits to plants around the Netherlands. Task 42 is doing interesting work on turning established AD plants into multi-product biorefineries; but its main focus is on crop-based systems rather than waste feedstocks. The job now is to follow up on these promising links and on the numerous opportunities for synergy with our own WG activities.

AI 4AD & 4 EDI?

Don't miss an amusing short video from Angie Bywater, which also has a serious point on the above topics. Originally prepared for the <u>2024 World Biogas Expo</u>, it's now available <u>here</u> on our YouTube site. The sound quality isn't great - and we can tease Angie about this a little, as she is also the main author of EBNet's <u>training materials</u> on how to make a good video. But you can't fault the message: and EBNet is very grateful for yet another of her contributions to our Network.

BES webinars

The next webinar from our Bioelectrochemical Systems WG is a joint session with PhycoClub.

The speaker is Dr Marin Sawa from the Hub for Biotechnology in the Built Environment at Newcastle University. The webinar will take place at 10:30-11:30 on Fri 12 Dec 2025. For more details and joining instructions watch out for an item on the Newspage early next week, scan the QR code on the WG webpage, or contact WG Lead Dr Sharon Velasquez Orta.

Green Stories - where do they get to?

It seems that copies of the **Green Stories: Microbes to the Rescue** book have been making their way around the country - have <u>you</u> got a new sighting to report?

...and the Audiobook

November's recommended stories from the audiobook and ebook are highlighted <u>here</u>. Three UK authors look at very different aspects of microbially-mediated sustainability... Let us know what you think!

'I am an Environmental Biotechnologist...'

Everyone must do their part to make the world a better place to live. I contribute by using my skills in molecular biology to remove pollution.

Amulyasai Bakshi,
University of Nottingham

I am an Environmental Biotechnologist because I enjoy the challenge of harnessing microorganisms to enhance the sustainability of our ecosystems.

Lauren Olley, Northumbria University I design hydrogel
capsules to protect
environmentally
beneficial bacteria
from biotic and abiotic
stresses in wastewater
treatment.
Albert Woodward-Rowe,
University of Surrey

We invited our Early Career Researchers to write a sentence on the theme "I am an Environmental Biotechnologist...". Some examples of their responses are shown here and in previous Newsletters. (NB EBNet has been running for 6 years - so some of them are no longer ECRs, but senior academics and industrialists!).

Spotlight On...

Do you have news to share with other members?

Email us details if you want a shout-out in next

month's newsletter. We can also post News items

on the website.



PFAS in UK drinking water supplies

A BBC News item reports that seven UK water companies have received enforcement notices requiring them to take action on potentially harmful concentrations of PFAS. The notices cover supplies to an estimated 6 million people. This is the first evidence of direct impact on UK drinking water, although there have been warnings for some time about the spread of these 'Forever chemicals', in <u>rivers</u> and in <u>wastewater biosolids applied to land</u>. EBNet is raising awareness of the issues, and seeking to identify advanced treatment solutions. For more on our work watch the <u>short animation</u> and joint EBNet/EBIC <u>workshop videos</u>, read the <u>POC202413</u> outline report, or contact the PFAS WG.

Waste Crime in the News

The UK's huge problem with waste crime - the illegal and dangerous disposal of waste materials - is finally attracting attention in high places. A brief <u>report</u> from the House of Lords' Environment and Climate Change Committee estimates 38 million tonnes of waste is dealt with illegally each year, at an annual cost to the economy of £1 billion. For a hard-hitting video on the subject see

<u>Dumped: The Great Waste Scandal</u>: we can only commend this impressive piece of reporting. The House of Lords Committee is now calling for an urgent independent review. For an EBNet take on some of the issues, see our News item.

New Digestate and Composting Resource Frameworks

New Resource Frameworks for <u>anaerobic digestate</u> and <u>compost</u> from waste materials in England were published on 20 Oct 2025, replacing the previous Quality Protocols with immediate effect. In conjunction with the Environment Agency, the Renewable Energy Association (<u>REA</u>) ran two webinars to talk through the changes. Webinar recordings and briefing sheets are available *here*, plus information on the status of other countries of the UK.

IWA and wastewater resources

A feature in The Source magazine on Rethinking resource_recovery in wastewater makes the powerful point that in many ways the focus has already moved from technological onto economic challenges. Key obstacles include 'razor-thin margins, [and] revenues exposed to volatile energy and fertiliser markets...'; and the piece strongly emphasises the consequent need for viable business plans. EBNet agrees, but would like to hear more voices raised on the urgent need to include the true costs of fossil resource usage and environmental damage, as an essential basis for more sustainable systems. As the item says, "The choices we make today will determine whether wastewater remains an end-of-pipe obligation or becomes the starting point of tomorrow's resource-secure, circular economy".

BB-REG-NET plastics publication

A new report by BB-REG-NET on the role of biodegradable plastics in addressing environmental persistence is one of a very useful series of publications on bio-based plastics. Will this also help to highlight the case for more work on degradation of these materials in microbially-mediated treatment sysyens including composting and AD? Reports are available free on BB-REG-NET's Resource Hub.

EBIC and NBIC initiatives

The Environmental Biotechnology Innovation Centre (EBIC)'s new webinar series launches on 14 Nov 2025 - just an hour or two after this Newsletter goes out. And don't miss a chance to get involved in the National Biofilms Innovation Centre (NBIC)'s Biofilm Week, from 18-24 Nov 2025.

More people are turning to EBNet for speedy access to events, reports, jobs, PhD/Postdoc positions etc.

Join us on $\underline{\text{LinkedIn}}$ or \underline{X} (formerly Twitter)



Forthcoming Events

Find selected upcoming events below.

Find more at: KTN events

Online events

NEW Springer Author webinars - 19, 26 and 27 Nov 2025 10:00 UK

NBIC Women in Science: Building Careers, Shaping Futures - 25 Nov 2025 14-15:30 UK

In person events

NEW CIWEM: A Fresh Water Future - 2 Dec 2025, London

NEW ADBA National Conference 2025 - 10 Dec 2025, London

NEW DATE Towards a Biobased Chemical Future - 26 Feb 2026, RSC London

NEW Photorefineries 2026 - 12-4 Sept 2026, Novi Sad, Serbia. Abstracts deadline 20 April 2026

IWA 11th Sewer Processes & Networks - 19-21 May 2026, Trondheim, Norway. Abstracts 31 Nov 2025

EUBCE 2026 - 19-22 May 2026, The Hague, Netherlands.

Amazing Science: Unlocking Methane Removal - 24-27 May 2026 Bologna, Italy.

IWA 14th Micropoll & EcoHazard - 31 May to 4 June 2026, Toronto, Canada. Abstracts 15 Dec 2025

IWA 19th World Conference on AD - 9-13 June 2026, Valencia, Spain. Abstracts 1 Dec 2025

Water in Industry 2026 - 27 June to 3 July 2026, Delft, Netherlands. Abstracts 15 Dec 2025

WasteEng 2026 - 7-10 July 2026, A Coruña, Spain.

Funding

Selected funding opportunities for academia and industry are highlighted below.

Find more at: UKRI funding



^{*}New* IBioIC Feasibility Funding - 12 Dec 2025 (requires links to Scotland)

^{*}New* BBSRC Pioneer Awards - Registration stage 19 Nov 2025, full applications 25 Feb 2026

^{*}New* Faraday Discovery Fellowships - Accelerated International - 25 Nov 2025, 25 Feb 2026

^{*}New* NERC Al for Environmental Science - 11 Dec 2025

^{*}New* Royal Commission of 1851 Research Fellowships - 13 Jan 2026

^{*}New* BBSRC New Investigator Awards - 14 Jan 2026

^{*}New* BBSRC Standard Research Grants - 14 Jan 2026

^{*}New* BBSRC ALERT 2025 Mid-range equipment - 20 Jan 2026

New Leverhulme Trust Emeritus Fellowships - 29 Jan 2026

New NERC Large grant outlines - 26 Feb 2026

New Leverhulme Trust Visiting Professorships - 1 May 2026

Royal Society Career Development Fellowship - 19 Nov 2025

Pushing the Frontiers of Environmental Research - 21 Jan 2026

EPSRC Programme grant full proposal - open

EPSRC Network Grant - open

Daphne Jackson Fellowship - open

BBSRC Brazil pump-priming - open

Travel and related awards

EPSRC Overseas Travel Grant - open

NBIC Flexible Talent Mobility Account - until 2027



Jobs, Training, Awards & PhDs

We still have funding available for Share-with-apeer (SWAP) exchanges - for details see EBNet website

Jobs (see also FindAPostDoc & Jobs.ac.uk)

NEW <u>KTP Associate - Environmental Engineering</u> - 16 Nov 2025, University of the West of Scotland

NEW Research Assistant - Wastewater Surveillance - 20 Nov 2025, University College Dublin, Ireland

NEW <u>Senior RA in Environmental Sustainabiliry and Future Networks</u> - 24 Nov 2025, University of Bristol

NEW Lecturer in Chemical Engineering - 27 Nov 2025, University College London

PhDs (see also FindaPhD and similar sites)

NEW Intermediate compounds in AD and their effect on P removal - 27 Nov 2025, Harper Adams University

NEW Process Industries: Net Zero - Chemical Engineering for sustainable wastewaterto-resource systems - 28 Nov 2025, Newcastle University

NEW Control and Engineering Biology - 2 Dec 2025, University of Oxford

NEW Engineering bacteria for improved bioremediation and H2 production - 2 Dec 2026, University of East Anglia

NEW Microbial Ecology - Methane-Oxidising Bacteria - 8 Dec 2026, EFPL, Switzerland

NEW <u>Biotechnology in the Home: Reducing pollution through Bio-based Wastewater</u>

<u>Management</u> - 7 Jan 2026, University of Essex

NEW <u>Delivering plastic degrading genes into contaminated soils</u> - 7 Jan 2026, University of East Anglia

NEW <u>PFAS sources, Fate & Transport focusing on River Thames</u> - start Oct 2026, University of Portsmouth

NEW <u>Scale-up of low-carbon Hydrogen from photoelectrocatalysis/cavitation</u> - start Oct 2026, University of Bath

<u>CDT in Water Infrastructure and Resilience (WIRe)</u> - start 2025, Cranfield/Newcastle/Sheffield

<u>CDT in Resilient Chemistry - 4 themes</u> - start 2025/2026, Universities for Nottingham

<u>Optimising sustainable bioplastic supply chains: modelling nanocellulose production in the UK - 19 Dec 2025, University of Manchester</u>

Resource at source: Bio-based platforms for transitioning to a Net Zero Chemical Industry - 18 Dec, University of Manchester

Training

NEW IBioIC 4-Day Pilot-Scale Upstream Bioprocessing - 18-21 Nov 2025, Edinburgh

NEW Springer Author webinars - 19, 26 and 27 Nov Nov 2025 10:00 UK online

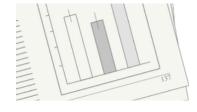
NEW IBioIC 3-Day Advanced Downstream Bioprocessing - 2-4 Dec 2025, Edinburgh

NEW Biofilms Alliance: Fundamentals of Metrology - 8 Dec 2025, online

Pilot Plant Protocol and Scale-Up - 18 Nov 2025 13:00 UK, online (free to IChemE members)

Publications

Have you seen something, or published anything recently, that you would like us to highlight?



What is Environmental Biotechnology? Widely applied, but a clear definition of the term is still needed. Heaven, S., Kusch-Brandt, S., Byfield, L., Bywater, A., Coulon, F., Curtis, T., Gutierrez, T., Higson, A. and Sadhukhan, J., 2025. *Environments* 2025, 12(10), 393. Microbial ecology of drinking water biofiltration based on 16S rRNA sequencing: A meta-analysis. Cholet, F., Vignola, M., Quinn, D., Ijaz, U.Z., Sloan, W.T. and Smith, C.J., 2025. *Water Research*, p.123684.

Addressing Persistent Plastic Pollution: The Case for Biodegradable Solutions.

Shuttleworth, G., Higson, A., Hanson, P.-A., Vanderhoven, J. 2025. BB-REG-Net.

Degradation of some EN13432 compliant plastics in simulated mesophilic anaerobic digestion of food waste. Zhang, W., Heaven, S. and Banks, C.J., 2018. Polymer degradation and stability, 147, pp.76-88.

Still here?

Dance your PhD - don't miss this!

The next round of the annual Dance Your PhD competition is open for entries until 20 Feb 2026.

Don't miss this fabulous chance to think about your work in a completely different way, disseminate your ideas to others, inspire people - and make a lot of new friends on the way. The competition started around 2009 and has gone from strength to strength: time for a winner from the Environmental Biotechnology category!

Coccus Pocus



Every year around Halloween the Coccus Pocus competition invites scarey microbiology-inspired stories. The results of this year's competition will be announced soon: meanwhile catch the Microbiology Sociey's <u>blog</u> where Dr Georgios Efthimio talks about this great idea, and for previous winners see <u>here</u>.

Where else to look?

There is a growing range of UK Networks and Hubs related to Environmental Biotechnology. Like EBNet, our sister-NIBBs <u>BBNet</u> and <u>HVB</u> run to end January 2026.

The <u>Better Water for All Network+</u> has now launched. <u>NBIC</u> continues to support research into biofilms. The 6 <u>Engineering Biology Mission Hubs</u> include the <u>Environmental Biotechnology Innovation Centre</u>, which builds on and expands some of EBNet's themes. Two more Mission Hubs, <u>Elemental</u> and <u>P3EB</u>, have an environmental focus. Sign up for EBIC's Newsletter *here*.

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