CSFL

CENTRE FOR SUSTAINABLE FORESTS AND LANDSCAPES

Newsletter 6

May 2021

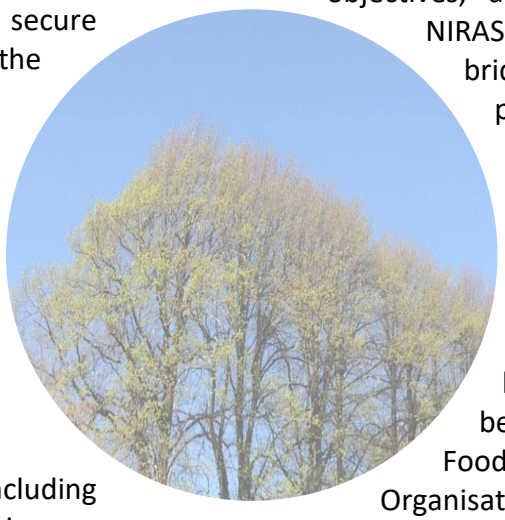
Hello and welcome to our sixth Newsletter.

It is very exciting to see restrictions gradually being lifted and things starting to look and feel a bit more normal. We really hope that the summer will bring more joy, and that we will soon start meeting and collaborating in person.

Conferences

We are very pleased to be hosting the **2021 ialeUK conference 'The Landscape Ecology of Forests, Woodlands and Trees', 7-9 September.**

It is increasingly recognised that forests, woodlands and trees provide societal benefits and nature-based solutions to wicked problems, including the climate emergency and the biodiversity crisis. This international conference will explore how landscape ecology can inform the expansion and restoration of forests, woodlands and trees to secure these public benefits into the future.



We aim to bring together people with relevant expertise from across science, policy, conservation and industry, to learn from each other, and identify ways in which landscape ecology can support ambitious policy targets, including those for woodland expansion, greenhouse gas reduction, biodiversity conservation, commercial viability, and sustainable development goals.

This multidisciplinary conference will appeal to anyone with an interest in the protection, planning and management of trees and forested landscapes, including researchers, policymakers, and foresters and conservation practitioners. We are seeking contributions that provide insight, potential solutions, and examples of action on the ground. Abstracts and posters will be published online.

The conference will adopt a hybrid format, hopefully allowing some in person attendance in Edinburgh combined with live streaming and online participation.

The deadline for abstract submissions is **16 May**.

For more information, please contact marc.metzger@ed.ac.uk.

New projects, funding, research

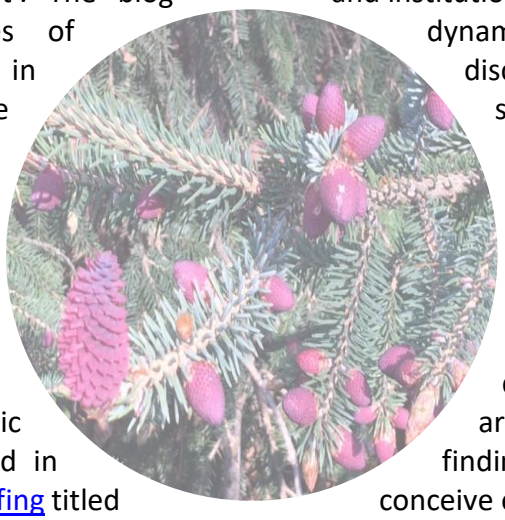
Gary Watmough would like to introduce **Tom Woolnough, a new PhD student** who started on 1st May. Tom's PhD research will focus on how digital agriculture innovations can be diffused between stakeholders in an equitable manner to meet our food and environmental objectives, alongside colleagues from NIRAS-LTS. Tom's experience bridges both science and practice having conducted fieldwork in Bobiri Forest Reserve in Ghana, as part of his MSc, and having led community resource management projects in rural Nicaragua. For the last three years, Tom has been based in Rome with the Food and Agriculture Organisation of the United Nations, where he supported the REDD+ team with work on integrated landscape approaches and deforestation-free commodities. He is particularly interested in how new technology can empower farmers to produce food more sustainably to meet our climate and biodiversity related SDGs. In this regard, he also co-runs a start-up that is trialling digital technology to improve biodiversity and climate action among Scottish farmers.

Developing the UNICEF Children's Climate & Environment Risk Index (CCERI). This phase 1 project aims to develop a risk index focused on children to be presented by UNICEF at COP26, it is a collaboration between University of Southampton,

University of Edinburgh, University of Stirling, University of Dundee, UNICEF and is funded by the Data for Children Collaborative. **Gary Watmough** will be working on converting the global index into a subnational index for selected countries.

Recent publications

The Scottish Parliament Information Centre (SPICe) recently published a blog by **Annie Yang** titled 'Climate change plan update and Scottish woodland creation: getting the balance right'. The blog examines multiple roles of Scottish woodlands in tackling the climate emergency and biodiversity loss as set out in the recent Scottish Government Climate Change Plan Update. This blog is a follow-up to Annie's recent Scottish Parliament Academic Fellowship, which resulted in her publishing a SPICe briefing titled 'The Multiple Roles of Scottish Woodlands'. The briefing provides an overview of existing policies and strategies related to forest creation, management, and use in Scotland, for multiple objectives, and the role of forests in light of the climate and biodiversity emergencies.



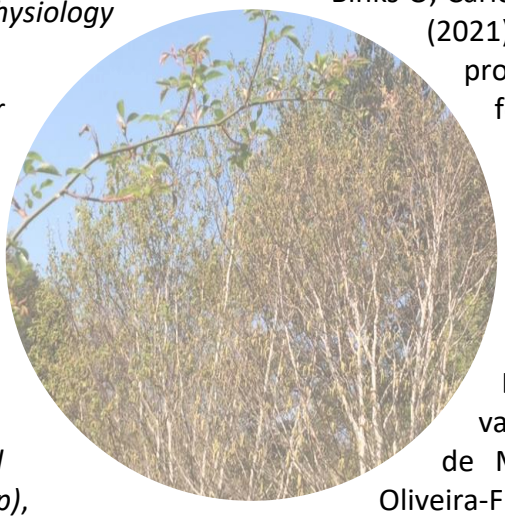
Sam Staddon is the co-author of Barnaud, C., Fischer A., Staddon S., Blackstock K., Moreau C., Corbera E., Hester A., Mathevet R., McKee A., Reyes J., Sirami C., and Eastwood A. (2021). 'Is forest regeneration good for biodiversity? Exploring the social dimensions of an apparently ecological debate', *Environmental Science & Policy*, 120, pp. 63-72.
Forest regeneration is a major land-use change in European uplands, and whether or not this is a desirable change for biodiversity is disputed. While this debate seems to be largely situated in the field of natural sciences, this paper aims to also examine its social dimensions. To do so, we adopt a comparative discourse analysis with four cases of protected areas in France, Spain, and Scotland. We draw on a conceptual framework highlighting both the ecological and social factors underpinning the construction of environmental discourses. It notably emphasises the role of interests, ideas and institutions, and the power dynamics underpinning discourse-coalitions. We show how diverging discourses emerged, gained ground, coalesced and competed differently in different contexts, explaining the adoption of seemingly opposite discourses by protected area authorities. These findings reaffirm the need to conceive environmental governance as an on-going deliberative process in order to achieve environmental justice.

Jaboury Ghazoul is lead editor of a new WWF report, *Forests for the Future – Restoration Success at Landscape Scale: What will it Take and What Have we Learned?* The report draws lessons from 21 case studies from around the world. It focuses on issues of governance, financing, sociocultural norms, and capacity building. It will be launched on May 20th.

Patrick Meir co-authored the following papers:
Lugli LF, Rosa JS, Andersen KM , di Ponzio R, Almeida RV, Pires M , Cordeiro AL, Cunha HFV, Martins NP, Assis RL, Moraes ACM, Souza ST, Aragao LEOC , Camargo JL,

Fuchslueger L, Schaap KJ, Valverde-Barrantes OJ, Meir P, Quesada CA, Mercado LM, Hartley IP. (2020). 'Rapid responses of root traits and productivity to phosphorus and cation additions in a tropical lowland forest in Amazonia' *New Phytologist*, https://doi.org/10.1111/nph.17154

Juliane Menezes, Sabrina Garcia, Adriana Grandis et al, incl Meir P and Quesada CA(2021). 'Changes in leaf functional traits with leaf age: When do leaves decrease their photosynthetic capacity in Amazonian trees?', *Tree Physiology* (in press).



Buscardo E, Souza RC, Meir P, Geml J, Schmidt SK, da Costa ACL & Nagy L (2021). 'Effects of natural and experimental soil drought effects on soil fungi and biogeochemistry in an Amazon rain forest', *Communications Earth and Environment (Nature-group)*, https://www.nature.com/articles/s43247-021-00124-8

Huasco WH, Riutta T, Girardin CAJ et al. & Meir P, Malhi Y (2021). 'Fine root dynamics across pantropical rainforest ecosystems', *Global Change Biology* (accepted)

Nottingham AT, Hicks LC, Meir P, Salina N, Zimmermann M, Bååth E (2021). 'Annual to decadal temperature adaptation of the soil bacterial community after translocation across an elevation gradient in the Andes', *Soil Biology and Biochemistry* (in press)

Burt A, Boni Vicari M, da Costa ACL, Coughlin I, Meir P, Rowland L, Disney M (2021). 'New insights into large tropical tree mass and structure from direct harvest and terrestrial lidar', *Royal Society Open Science*. https://doi.org/10.1098/rsos.201458

Malhi Y, Girardin C, Metcalfe DB, Doughty CE, Aragao LEO, et al. Meir P, Phillips OL. (2021). 'The Global Ecosystems Monitoring network: Monitoring ecosystem productivity and carbon cycling across the tropics', *Biological Conservation*, https://doi.org/10.1016/j.biocon.2020.108889

Binks O, Carle H, da Costa ACL & Meir P (2021). 'Measuring vertical profile of leaf wetness in forest canopy', *MethodsX* (in press)

Kyle Dexter co-authored the following papers:

Vanessa Leite Rezende, Vanessa Pontara, Marcelo Leandro Bueno, Eduardo van den Berg, Pedro Luiz Silva de Miranda, Ary Teixeira de Oliveira-Filho, Kyle G. Dexter (2020). 'Phylogenetic regionalization of tree assemblages reveals novel patterns of evolutionary affinities in the Atlantic Forest', *Journal of Biogeography*, https://onlinelibrary.wiley.com/doi/10.1111/jbi.14038

Ary T. Oliveira-Filho, Kyle G. Dexter, R. Toby Pennington, Marcelo F. Simon, Marcelo L. Bueno, Danilo M. Neves (2021). 'On the floristic identity of Amazonian vegetation types', *Biotropica*, https://onlinelibrary.wiley.com/doi/full/10.1111/btp.12932

Contact

If you have items for our newsletter, news to share through the website or Twitter, or if you would like to contribute to our blog, please get in touch with Nataša Honeybone (natasa.honeybone@ed.ac.uk).