Project Title: Geographies of Expertise in Climate Mitigation Futures: Exploring the Transformation of Latin American Peatlands

Lead Institution/Department: University of Bristol, School of Geographical Sciences
Primary Supervisor: Naomi Millner
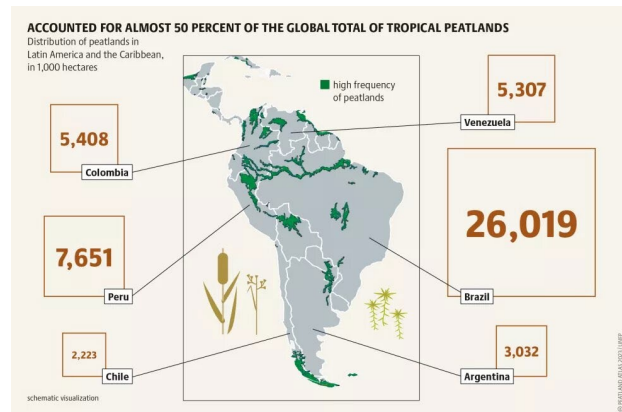**Co-Supervisor:** James Palmer

Figure 1 Updated predictions of peatland in Latin America. Source: Eimermacher/stockmarpluswalter licence: CC-BY 4.0

Scholarship: A fully funded PhD studentship including UK fees (it may be possible to apply for further cover if international fees apply), annual stipend, and a research budget, is available at the University of Bristol. Study will begin in September 2025 and is funded for 3.5 years. The deadline for applications is 1 April 2025.

Project aims and methods

This fully-funded PhD studentship will investigate the geographies of expertise in Latin American peatlands, where climate mitigation policies focused on carbon are transforming socio-ecological relations. Unlike European peatlands, the wetland landscapes in question have not long been considered "peatlands" as such except by specialised scientists and have historically been governed by a mosaic of biodiversity conservation and water and land management policies, with their own (colonially-influenced) histories. Latin American peatlands can consequently characterised in terms of an ontological diversity when it comes to their environmental value and role – something which is often overlooked when carbon imaginaries and sensing technologies (such as drones and LiDAR) enter the scene. This studentship will explore how Latin American peatlands are being transformed by their definition as carbon sinks, and will seek to analyse how scientific, policy, and community actors are constructing, mobilising, and contesting knowledge about peatlands in relation to diverse social and financial projects.

Drawing on human geography, (feminist) political ecology, and/or Science and Technology Studies approaches, the studentship holder will develop an analytical framework for understanding the ways that distinct financial, policy and technical infrastructures arrive in peatlands and enter relation with longstanding practices, such as agriculture and grazing, subsistence fuel collection, extraction for horticulture. Combining qualitative research methods – including interviews, ethnographic observation, and document analysis – with other social science methods such as spatial analysis and/or participatory mapping, the project will develop detailed understanding of two or more case studies in peatlands in Latin America where new logics of neoliberal governance, commercial investment and/or carbon finance are

currently on the table. By analysing how different actors and forms of knowledge enter relation in the case studies, and setting the case studies into the context of wider sociopolitical transformations, the project will develop nuanced understanding of the power dynamics, ecologies of knowledge, and the policy and financial infrastructures that underpin proposed transformations to Latin American peatlands, as well as identifying potential options for more just and inclusive governance

Summary of PEATSENSE: Diverse Knowledges and Sensing Practices in Peatlands for Inclusive Climate Futures

This 3.5-year studentship is part of the interdisciplinary PEATSENSE project, funded by the European Research Council, which investigates the transformation of peatlands in Latin America and Europe as new global institutions and actors arrive as part of transnational climate mitigation action. PEATSENSE sets out to document implications of these transformations as well as identifying pathways towards just and inclusive governance.

In Latin America these transformations are extremely new: global efforts to map peatlands and their carbon storage potential via satellite and remote sensing data have suggested that there is a significantly higher extent of peatland than was expected, especially in the high Andean mountains and low Amazon basin. These peatlands [*turberas*] were not, in most of Latin America, classified as such historically; they have instead been known and governed by their definition as *humedales* [wetlands], *páramos* [high moorlands], *bofedales* [high, peat-rich wetlands], *pantanos* or *aguajales* [swampy or fen-like wetlands]*, cienagas* [marshy swamps]*,* or *marismas* [salt marshes]. The premise of PEATSENSE is that the arrival of these new imaginaries, technologies and actors in a context of ontological ambiguity stands to further exclude the exclusion of Indigenous Peoples and Local Communities (IP&LC) and associated forms of Indigenous and Local forms of Environmental knowledge – but that this is not inevitable. The wider project sets out: 1) to analyse the sensing practices and socio-ecological relationships through which efforts to reconfigure peatlands for climate mitigation purposes in Latin America are playing out and; 2) to develop principles for/experimentally develop a participatory decision-making process in and beyond the case study areas to inform future policymaking.

How the studentship fits within the wider project

This studentship holder will develop their own original case studies using distinct methodologies. It is anticipated that these will be in the project study regions (low Amazon pole forests and palm swamps in Colombia and Péru; High Andean *páramos* [high moorlands] in Colombia and Péru; or Patagonian *bofedales* [high, peat-rich wetlands]), however, it is possible to justify alternative sites. The appointed student will also contribute toward the objectives of PEATSENSE project and participate in wider team activities. They will contribute primarily to a work package examining the knowledge infrastructures, governance arrangements, and epistemic tensions around peatland restoration and carbon markets. Key project tasks linked with this studentship will include:

1. Mapping the networks of expertise and policy/finance infrastructures involved in climate mitigation initiatives in peatlands within and beyond the selected case studies

2. Producing a critical analysis of the role of science-policy interfaces in shaping peatland futures

3. Developing recommendations for inclusive governance of peatlands that account for diverse knowledge systems

4. Contributing to PEATSENSE's cross-cutting outputs, such as policy briefs, academic publications, and stakeholder workshops.

Candidate Requirements

We seek a motivated candidate with a strong background in human geography, environmental studies, science and technology studies, or related disciplines. Candidates will have strong written and oral communication skills and will enjoy working both independently and collaboratively in an interdisciplinary and international research team.

Ideally, candidates will have all of the essential qualifications and some of the desirable qualifications:

Essential Qualifications:

-   A Master's degree in the social sciences (Human Geography, Political Ecology, Science and Technology Studies, Sociology, Anthropology, International Conservation, or a related discipline) including training in Social Science research Methods;
-   Experience with using qualitative research methods, such as interviews and/or participant observation;
-   Prior research and/or lived experience in Latin America;
-   High level written and verbal communication skills in English;
-   Spoken and written Spanish Language to B2 level or above.

Desirable Qualifications:

-   A Master's dissertation undertaken in a broadly linked area (whether by empirics, theoretical approaches, or theme);
-   Proficiency in, or interest in, learning minority and/or Indigenous languages;
-   Lived and/or research experience in one of the case study countries (Colombia, Peru, Patagonia (Argentina & Chile);
-   Interest and/or experience in public engagement, participatory processes and/or scientific communication to a wider audience;
-   Experience of working in an interdisciplinary, transdisciplinary, or international team;
-   Familiarity with participatory or spatial methods;
-   Familiarity with political ecology and/or Science and Technology Studies approaches.

Background reading

Applicants are encouraged to familiarise themselves with some of the following key literature:

Amador-Jimenez, M., & Millner, N. (2023). Being Paramuno: Peasant World-Making Practices in the Paramos [High Moorlands] of the Colombian Andes. *Society & Natural Resources*, 1-19.

Byg, A., Martin-Ortega, J., Glenk, K., & Novo, P. (2017). Conservation in the face of ambivalent public perceptions–The case of peatlands as 'the good, the bad and the ugly'. *Biological Conservation*, 206, 181-189.

Fernández-Llamazares, Á., Lepofsky, D., Lertzman, K., et al. (2021). Scientists' warning to humanity on threats to indigenous and local knowledge systems. *Journal of Ethnobiology*, 41(2), 144-169.

Flaminio, S., Rouillé-Kielo, G., & Le Visage, S. (2022). Waterscapes and hydrosocial territories: Thinking space in political ecologies of water. Progress in Environmental Geography, 1(1-4), 33-57.

Flood, K., Mahon, M., & McDonagh, J. (2022). Everyday resilience: Rural communities as agents of change in peatland social-ecological systems. *Journal of Rural Studies,* 96, 316-331.

Gabrys, J. (2019). Sensors and sensing practices: Reworking experience across entities, environments, and technologies. *Science, Technology, & Human Values*, 44(5), 723-736.

Goldstein, J.E. (2020). The volumetric political forest: Territory, satellite fire mapping, and Indonesia's burning peatland. *Antipode,* 52(4), 1060-1082.

Gupta, A., Lövbrand, E., Turnhout, E., & Vijge, M. J. (2012). In pursuit of carbon accountability: the politics of REDD+ measuring, reporting and verification systems. *Current Opinion in Environmental Sustainability*, 4(6), 726-731.

Kashwan, P.V., Duffy, R., Massé, F., Asiyanbi, A.P., & Marijnen, E. (2021). From racialized neocolonial global conservation to an inclusive and regenerative conservation. *Environment: science and policy for sustainable development*, 63(4), 4-19.

Lourenco, M., Fitchett, J.M., & Woodborne, S. (2023). Peat definitions: A critical review. *Progress in Physical Geography: Earth and Environment*, 47(4), 506-520.

Paneque-Gálvez, J., Pérez-Llorente, I., Luz, A. C., Guèze, M., Mas, J. F., Macía, M. J., ... & Reyes-García, V. (2018). High overlap between traditional ecological knowledge and forest conservation found in the Bolivian Amazon. *Ambio*, *47*, 908-923.

Schulz, C., Brañas, M. M., Pérez, C. N., Del Aguila Villacorta, M., Laurie, N., Lawson, I. T., & Roucoux, K. H. (2019). Peatland and wetland ecosystems in Peruvian Amazonia. *Ecology and Society*, *24*(2).

Turnhout, E. (2018). The politics of environmental knowledge. *Conservation and Society*, 16(3), 363-371.

White-Nockleby, C., Prieto, M., Yager, K., & Meneses, R. I. (2021). Understanding bofedales as cultural landscapes in the central Andes. *Wetlands*, *41*, 1-14.

Useful Links

Please contact naomi.millner@bristol.ac.uk or james.palmer@bristol.ac.uk for informal enquiries.

- https://www.bristol.ac.uk/geography/courses/postgraduate/

How to Apply: Please apply to the "Geography (PhD)" programme at https://www.bristol.ac.uk/study/postgraduate/apply/.

In your application, please include as an attachment a **Research Statement** of up to 1200 words (excluding references) in which you lay out:

A. Your motivation for applying for this project studentship, including relevant experience and interests, skills and motivations (500 words); and

B. The analytical approach, case studies, methodology and timeline you would use to design your doctoral project in the context of PEATSENSE (700 words). It is suggested that you focus on one case study area in part B, (eg. low Amazon pole forests and palm swamps in Colombia and Péru; High Andean *páramos* [high moorlands] in Colombia and Péru; or Patagonian *bofedales* [high, peat-rich wetlands]), although you may suggest more than one site within the case study area. You may also choose a different case study region for the purpose of the application – this will in any case be defined in the first year of the PhD.