



Dr Sara Anne Thornton

Interdisciplinary research | Conservation | Wetlands | Livelihoods

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CURRENT EMPLOYMENT AND AFFILIATIONS

Principal Research Officer

Wildfowl & Wetlands Trust, UK

Leading programmes of scientific research for the Ecosystem Health and Social Dimensions Unit in the UK and WWT's international priority countries including Madagascar, Cambodia, Russia and Myanmar.

Priorities include capturing the social, cultural and wellbeing benefits of wetlands for people and communities, understanding and encouraging human behaviours that support wetland conservation, and examining drivers and potential solutions for issues that impact the health of wetland ecosystems.

Honorary Fellow

University of Leicester, School of Geography, Geology and the Environment, UK

EDUCATION

2013–2017 **PhD**

School of Geography, Geology and the Environment

University of Leicester, UK

Thesis: *(Un)tangling the Net, Tackling the Scales and Learning to Fish: An Interdisciplinary Study in Indonesian Borneo*. Available [online](#).

- Assemblage Theory
- Peatland livelihoods and governance
- Fish-river-human-spirit relationships
- Critiques of ecosystem services

Supervisors: Prof Susan Page, Prof Caroline Upton, Dr Mark Harrison

2009–2013 **BSc (Hons) Ecological Science (Conservation and Ecological Management)**

University of Edinburgh, UK

Dissertation entitled: *Reconciliation of the Causes of Deforestation in Central Kalimantan with the Implementation of the EU/Indonesia FLEGT-VPA: A Literature Review*.

EMPLOYMENT HISTORY

2020–2022 **Research Associate**

University of Leicester, School of Geography, Geology and the Environment, UK, Researcher Co-Investigator on [Kalimantan Lestari \(KaLi\) project](#). Partners include Universities of Indonesia, Gadjah Mada, Palangka Raya, Exeter, Leeds, LSE and East Anglia. Responsibilities: Lead on interdisciplinary working, researcher on objectives related to peatland livelihoods, governance, fisheries, and fish ecology.

2015–Current **Guest Lecturer in Geography**

University of Leicester, School of Geography, Geology and the Environment, UK
Undergraduate modules:

- Understanding Tropical Forests of SE Asia
- Living with Environmental Change
- Contemporary Environmental Challenges

2018–2019 **ESRC Postdoctoral Fellow**

University of Leicester, School of Geography, Geology and the Environment, UK
Principal Investigator on project: 'Sustainable Livelihoods in Indonesian Tropical Peatlands'.

- 2018 **Postdoctoral Research Assistant**
University of Leicester, School of Geography, Geology and the Environment, UK
Project: 'SUSTAINPEAT', looking at overcoming barriers to sustainable livelihoods and environments in smallholder agricultural systems on tropical peatland.
- 2018 **Postdoctoral Research Assistant**
University of Leicester, Department of Genetics and Biology, UK
Project: 'Enhancing the development of field skills and student engagement through multimedia technology'.
- 2017–2018 **Postdoctoral Research Associate**
University of Leicester, School of Geography, Geology and the Environment, UK
Project: 'Development of Research Impact on the Ecosystem Services Provided by Tropical Peatlands'
- 2016–2017 **Undergraduate Tutor**
University of Leicester, School of Geography, Geology and the Environment, UK
- Landscape-Ecosystem Dynamics
 - Working with Geographical Information
 - Research Design and Methods (with Dissertation Planning)
- 2015-2017 **Field Lecturer and Supervisor**
Borneo Nature Foundation, Indonesia and University of Leicester, UK
Teaching field research methods and supervising undergraduate dissertation students. Included lecturing on University of Leicester and MSc module:
- Indonesia Field Course
- 2013–2017 **Undergraduate Course Marker**
University of Leicester, School of Geography, Geology and the Environment, UK
- Fieldwork Skills for Professional Geographers (BA and BSc)
 - Environment, Nature and Society
- 2012 **Volunteer Coordinator**
Borneo Nature Foundation, Indonesia
Teaching field research methods, organising and leading field teams
- 2012 **Deer Monitoring Assistant**
Scottish Natural Heritage, UK
- 2011 **Research Assistant for Ecological Monitoring and Forest Research**
Borneo Nature Foundation, Indonesia
- 2011–2012 **Biodiversity and Conservation Officer**
Countryside Ranger Service, Edinburgh, UK
- 2010 **Research Assistant**
Operation Wallacea, Pacaya-Samiria Nature Reserve, Peru

AWARDS/GRANTS

- 2021 **AHRC-NERC Partnership Seed Fund** (£5,000). **Co-Investigator**. Project: 'Unravelling the Hidden Histories of Environmental (Mis)management and Indigenous (Dis)possession in Borneo: Re-centring Native Knowledge and Local Politics in Nature Conservation'
- International Research Development Fund** (£10,000). **Named Researcher**. University of Leicester. Project: Health, resilience and sustainable development: an exploration of health and welfare of peatland communities'
- 2020 **NERC-GCRF** (£152,332.32). **Researcher Co-Investigator**. Project: 'Drought and peatland fires in Indonesian Borneo: Understanding drivers and impacts to build resilience through sustainable development'. PI: Prof Frank van Veen. Total value of the GCRF funding: £3.8 Million.
- Turtle Conservation Fund** (\$4,939). **Principal Investigator**. Turtle Conservation Fund. Project:

'Understanding distribution and threats to enhance conservation of the Bornean River Turtle (*Orlitia borneensis*) and other freshwater turtle species in Indonesian Borneo'.

- 2019 **Early Career Researcher Funding** (£676). University of Leicester Doctoral College.
- 2018 **ESRC Postdoctoral Fellowship** (£110,382). **Principal Investigator**. UK Economic and Social Research Council. Project: 'Sustainable Livelihoods in Indonesian Tropical Peatlands'.
British Ecological Society Outreach Grant (£1,895). British Ecological Society.
- 2017 **School of Geography, Geology and the Environment** (£500). University of Leicester.
Research Fund of Professor Goodwin (£500). University of Leicester.
The Graduate School Researcher Development Fund (£500). University of Leicester.
- 2016 **Allan Robertson Grant** (€250). The International Peatland Society.
- 2015 **Allan Robertson Grant** (€500). The International Peatland Society.
- 2014 **Rufford Foundation Small Grant** (£5,678). **Principal Investigator**. The Rufford Foundation. Project: 'Evaluating the Ecological and Cultural Services Provided by Tropical Forest Ecosystems: Freshwater Fish and the Use of Fish Ponds as a Sustainable Livelihood Source in Central Kalimantan, Indonesia'
- 2013 **College of Science & Engineering Match-Funding PhD Studentship** (£57,893). University of Leicester.
- 2010-12 **James Rennie Bequest** (total of £1500). The University of Edinburgh.
Peter Marsh Prize (£400). The University of Edinburgh.

PUBLICATIONS

Peer-reviewed articles (R: In review; P: In preparation)

- P **Thornton, S.A.**, Dudin, Maulidi, A., Yulintine, Harrison, M.E. Canal damming for peatland restoration: Investigating the impacts on fish catches in a tropical peat-swamp forest. *Conservation Letters*.
- R **Thornton, S.A.**, Cook, S., Cole, L.E.S., Hapsari, K.A., Zawawi, N.Z., Page, S.E. From Muddy Glee to muddy reflections on fieldwork and writing. *Area, Classics Revisited* feature.
Thornton, S.A., Carmenta, R., Astiani, D., Tribolet, C. and Page, S.E. Clearing the haze: resolving misconceptions that blanket Indonesian peatland fires – a review. *Land Use Policy*.
Girkin, N., Cooper, H.V., Ledger, M.J., O'Reilly, P., Thornton, S.A., Åkesson, C.M., Cole, L.E.S., Hapsari, K.A., Hawthorne, D., Roucoux, K.H. Tropical peatlands and the Anthropocene: the present and the future. *Anthropocene*.
- 2022 Cole, L.E.S., Åkesson, C.M., Hapsari, K.A., Hawthorne, D., Roucoux, K.H., Girkin, N.T., Cooper, H.V., Ledger, M.J., O'Reilly, P., **Thornton, S.A.** Tropical peatlands and the Anthropocene: Lessons from the Past. *Anthropocene*. [In Press]
- 2020 **Thornton, S.A.**, Setiana, E., Kris yoyo, Page, S.E., Harrison, M.E. and Upton, C. Towards Biocultural Approaches to Peatland Conservation: The Case for Fish and Livelihoods in Indonesia. *Environmental Science & Policy*, 114:341-351: <https://doi.org/10.1016/j.envsci.2020.08.018>.
Harrison, M.E., Wijedasa, L.S., Cole, L.E.S., Cheyne, S.M., Choiruzzad, S.A.B., Chua, L., Dargie, G.C., Ewango, C.E.N...**Thornton, S.A.**, Upton, C., Page, S. Tropical peatlands and their conservation are important in the context of COVID-19 and potential future (zoonotic) disease pandemics. *PeerJ* 8:e10283 <https://doi.org/10.7717/peerj.10283>
- 2019 **Thornton, S.A.**, Cook, S., Astiani, D., Hapsari, K.A., Varkkey, H., Cole, L.E.S., Dargie, G.C., Sjoergersten, S., Zawawi, N.Z., Page, S.E. 'Pushing the limits': Experiences of Women in Tropical Peatland Research. *Marine and Freshwater Research*, Special Issue on Women in Freshwater

Science, 71(2):170. Doi:10.1071/mf19132

Harrison, M.E., Bramansa Ottay, J., D'Arcy, L.J., Cheyne, S.M., Anderson, K., ... **Thornton, S.A.**, Upton, C., Wich, S.A., van Veen, F. Forest and Peatland Conservation in Indonesian Borneo: Challenges and Directions. *People and Nature*. Early version available: <https://doi.org/10.1002/pan3.10060>

- 2018 **Thornton, S.A.**, Dudin, Page, S.E., Upton, C. & Harrison, M.E. Peatland fish of Sebangau, Borneo: diversity, monitoring and conservation. *Mires and Peat*, 22(04), 1-25. Doi: 10.19189/MaP.2017.OMB.313
- 2017 Husson, S.J., Limin, S., Adul, Boyd, N.S., Collier, S., Cheyne, S.M., D'Arcy, L.J... **Thornton, S.A.**, Tremlett, C., Yeen, Z. and Harrison, M.E. Biodiversity of the Sabangau Tropical Peat-swamp Forest, Indonesian Borneo. *Mires and Peat*, 22(05):1-50. Doi: 10.19189/MaP.2018.OMB.352
- 2016 Wijedasa, L. S., Jauhiainen, J., Könönen, M., Lampela, M., Vasander, H., LeBlanc, M. C.,... **Thornton, S.A** & Lupascu, M. Denial of long-term issues with agriculture on tropical peatlands will have devastating consequences. *Global Change Biology*, 23(3):977-982.

Books

- 2020 Chapman, R.H. and **Thornton, S.A.** (Joint first authors) [Top Spec Geography: The Carbon and Water Cycle](#). Top Spec Geography Series, Geographical Association, UK. *This was the best-selling title in the Top Spec Geography Series in 2020*

Other publications

- 2020 **Thornton, S.A.**, Carmenta, R., Astiani, D., Tribolet, C. and Page, S.E. The 'life of fire' on Indonesia's peatlands. Report commissioned by APRIL Group.
- Lees C., Gibson C., Jaafar Z., Ng H.H., Tan H.H., Chua K.W.J., **Thornton S.A.** and Van Veen F.J.F. (Eds.) [Assessing to Plan: Next steps towards conservation action for threatened freshwater fishes of the Sunda region](#). IUCN Conservation Planning Specialist Group, Apple Valley, MN, USA.
- 2017 **Thornton, S.A.**, Green, S., Cook, S and Wright, L. and Page, S.E. Tropical Peatlands: Their global importance and role in the water and carbon cycles. University of Leicester. Also available in Indonesian (<https://bit.ly/2KbhpSR>) and Spanish (<https://bit.ly/2lpN3Ni>).
- 2016 **Thornton, S.A.**, Dudin, Limin, S.H., Page, S.E., Upton, C. and Harrison, M.E. Peatland fish of Sabangau, Borneo: Ecology and implications for future monitoring and conservation. International Peatland Congress, Kuching, Malaysia.
- Thornton, S.A.**, Setiana, E., Kris yoyo, Limin, S.H., Page, S.E., Harrison, M.E. and Upton, C. Fishing communities of Sabangau, Borneo: Knowledges, practices and values. International Peatland Congress, Kuching, Malaysia.
- Harrison, M.E., Ripoll Capilla, B., **Thornton, S.A.**, Cattau, M.E and Page, S.E. Impacts of the 2015 fire season on peat-swamp forest biodiversity in Indonesian Borneo. International Peatland Congress, Kuching, Malaysia.

INVITED KEYNOTE SPEAKER

- 2019 **"In the Line of Fire: Peatlands, Sustainability and the UN Sustainable Development Goals"**. The Global Promotion and Mediation of the UN's Sustainable Development Goals, 16th September. Conference organised by the Media Discourse Centre, De Montfort University, Leicester.
- 2017 **"On Peatlands, Haze and Hope"**. The International School of Hilversum International Baccalaureate Graduation Ceremony, 16th September. The Netherlands.

INVITED WORKSHOP/EVENT PARTICIPATION

- 2021 **“Tropical peat swamps and Muddy Glee: Reflections on writing, fieldwork and experiences of the COVID-19 pandemic”**. Invited to speak at the workshop entitled ‘Muddy Glee: what geography fieldwork means in the current moment’, organised by the RGS-IBG, 10th November 2021.
- 2020 **“Tropical Peatland Research: Experiences and Research Horizons”**. Invited to speak by the Indonesian Government Peatland Restoration Agency (BRG), session entitled ‘Millennials on Peatland Restoration Research: Looking after the Future of Indonesian Tropical Peatland Ecosystem Landscape’. 28th October 2020.
- “Pushing the Limits: Experiences of Women in Research”**. EDI (Equality, Diversity and Inclusion) Event, University of Leicester, UK, 19th February. I was invited to hold this event, presenting the results of our paper Thornton *et al.* (2019), and discussing challenges facing women in fieldwork and future steps for the department and school to better supporting women in science and academia.
- 2019 **Sundaic Freshwater Fishes IUCN Red List Review Workshop**, Singapore 28th January – 1st February. IUCN Global Species Programme, Freshwater Biodiversity Unit. Invited as a conservation expert.
- “Palm Oil Debate”**, University of Leicester Student Union, UK, 13th February. As part of the Student Union’s *Go Green Week*: I was invited as a notable academic from the university (alongside Prof Susan Page) to discuss the issues surrounding palm oil and debate questions with the attendees.
- 2017 **“Developing International Collaborations to Address Fire and Other Conservation Issues in Central Kalimantan, Indonesia”**. Workshop BNF-University of Exeter 14-22 October. The workshop involved Indonesian and international academics, NGO and government partners. Workshop outputs have been published as a peer-reviewed article (Harrison *et al.*, 2019), available online: <https://besjournals.onlinelibrary.wiley.com/doi/10.1002/pan3.10060>
- “Protest camps in International Context”**, Everybody’s Reading Festival, Leicester, UK, 5th October. I was invited to discuss my experiences in the UK anti-fracking movement and Preston New Road anti-fracking camp alongside Prof Gavin Brown (University of Leicester), Dr Fabian Frenzel (University of Leicester) and Dr Uri Gordon (Durham University).

EVENTS ORGANISED

- 2020 **Tropical Peat Research Group Meeting, 30th January, University of Leicester, UK.**
- 2019 **“Into the Swamp: Stories from the Peatlands of Borneo”**, 2-8th April, Newarke Houses Museum, Leicester, UK. Total 248 attendees, and overall rating from feedback: 9.4/10 (st. dev.= 0.8). Photographs available [here](#).
- 2017 **Tropical Peatland Away-Day for A-level Geography Teachers, 5th December, University of Leicester, UK.** Participants reported being extremely likely (7/10) or very likely (3/10) to use the information presented in their future lessons.
- “Reconnecting Struggles”**, 5th June, Attenborough Arts Centre, Leicester, UK. [Workshop](#) bringing together academics, students, activists, artists and members of the public.

PRIZES/COMPETITION AWARDS

- 2019 **Finalist for Speak Up for Food Security science communication competition**
Global Food Security programme
Engaging with Parliament event participant
I won a place on this half-day training event held by the Industry and Parliament Trust (IPT).
- 2017 **Best Postgraduate Researcher Image**
Images of Research, the University of Leicester. Photograph entitled “*Senyum*”.

- 2011 **Stebbing Commemoration Prize**
The University of Edinburgh School of GeoSciences. Awarded for my performance as best student in 'Applied Ecology and Environmental Management'.

ADDITIONAL PRESENTATIONS (CONFERENCES, INVITED SEMINARS)

- 2021 ***"Critiquing the Anthropocene"***. University of Leicester Contemporary Environments Research Group [Oral].
- 2020 ***"Stepping into the quagmire: The challenges and opportunities of interdisciplinary peatland science"***. Invited Speaker at the American Geophysical Union Fall Meeting 2020. Session entitled: Old Peat, New Voices: Frontiers in Global Peatland Research from Early Career Researchers [Oral].
"Towards biocultural approaches to peatland conservation: The case for fish and livelihoods". FLARE Network Twitter Conference 'Reimagining Forests and Livelihoods in Turbulent Times', 27th October 2020. [Twitter]
"Interdisciplinary research in Indonesia's tropical peatlands: fish and fishing livelihoods". UK Tropical Peat Working Group Meeting, University of Leicester. [Oral]
- 2019 ***"An interdisciplinary study of the peatland fish of Sabangau: Fish diversity and the important of fish and fishing to local communities"***. Invited seminar given at Nanyang Technological University, Asian School of the Environment. [Oral]
- 2018 ***"An interdisciplinary study of the peatland fish and fishing in Sabangau, Indonesian Borneo"***. Tropical Peat Ecosystem and Restoration Conference, Palangkaraya, Central Kalimantan, Indonesia [Oral].
"The importance of fish(ing) to tropical peatland communities in Borneo" 50th IPS Anniversary Jubilee Symposium "Peatlands: past, present and future" Rotterdam, Netherlands [Oral]
"The diversity of peatland fish of Sabangau, Central Kalimantan (Indonesia)". 50th IPS Anniversary Jubilee Symposium "Peatlands: past, present and future" Rotterdam, Netherlands [Poster]
"The Tropical Peatlands of Borneo". Invited Guest Speaker for the Leicestershire and Rutland Wildlife Trust Group meeting, UK [Oral]
- 2017 ***"Peatlands Matter: Ecosystem Services and their importance for livelihoods"***. Presentation at the Tropical Peatland Teacher Away-Day, University of Leicester, UK [Oral]
"An interdisciplinary study of the peatland fish and fishing in Borneo: Ecology, values, and implications for future conservation". Workshop: Developing International Collaborations to Address Fire and Other Conservation Issues in Central Kalimantan, Indonesia. Invited workshop participant. Organised by the Borneo Nature Foundation and University of Exeter, Falmouth Campus, UK. [Oral]
"The Importance of Fish and Fishing to Local Communities in Indonesian Borneo". Presented to A-Level Geography students at Rugby School, Rugby, UK [Oral]
- 2016 ***"Peatland Fish of Sabangau, Kalimantan: Surveys for future monitoring and conservation"***. International Peat Congress, Kuching, Malaysia [Oral]
"Fishing communities of Sabangau, Borneo: Knowledge, practices and values". International Peat Congress, Kuching, Malaysia [Poster]
"Peat-swamp forests of Indonesia and the fires of 2015: Why we should all care". Presented to staff at Alaska Community Action on Toxics (ACAT), Anchorage, U.S.A [Oral]
- 2015 ***"Evaluating the ecological and cultural services provided by tropical forest ecosystems: A case study in Central Kalimantan, Indonesia"***. Presented to the Indonesian Ministry of Research and Technology, Jakarta, Indonesia [Oral]
- 2014 ***"Ecosystem and cultural values of forest in Indonesia"***. The Annual Conference of the Society for Tropical Ecology (gtö) in Freising, Germany [Poster]
"Ecosystem and cultural values of forest in Indonesia". The Scottish Tropical Ecology and Biology Conference, Glasgow, UK [Poster]
- 2013 ***"Working as a Tropical Ecologist"***. Presented at the International School of Hilversum to

children aged 10-11 years (The Netherlands) [Oral]

EDITORIAL DUTIES AND PROFESSIONAL MEMBERSHIP

Reviewer for natural science, social science, and interdisciplinary journals: *Social and Cultural Geography*; *People and Nature*; *Forestry Ideas*; *Restoration Ecology*; *Mires and Peat*

Reviewer for *World Resources Institute*

Member of UK Tropical Peatland Working Group, International Peatland Society, British Ecological Society, WI-IUCN SSC Freshwater Fish Specialist Group