



Dr Sara Anne Thornton *BSc (Hons) PhD*

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CURRENT APPOINTMENT

ESRC Postdoctoral Fellow (2018-2019)

University of Leicester School of Geography, Geology and the Environment

Project entitled: 'Sustainable Livelihoods in Indonesian Tropical Peatlands'

Role: Principal Investigator

This fellowship focuses on increasing the impact from my PhD through:

- Writing and submitting multiple journal articles (see 'Papers' section)
- Organising a science outreach exhibition to showcase the importance of tropical peatlands and their conservation (see 'Workshops/Events Organised' section)
- Setting up the long-term fish monitoring project in Sebangau with Borneo Nature Foundation
- Disseminating the results of my research back to the communities in Indonesia
- Presenting my results at conferences and seminars (see 'Presentations' section)
- Continuing research: conducting follow-up interviews in Sebangau communities

Lastly, in recognition of my expertise, I was invited and joined as an expert for the IUCN Red List Review Workshop on Sundaic Freshwater Fishes, Jan 2019 (published outputs forthcoming).

LANGUAGES

English	Fluent (speaking, reading and writing)
Dutch	Fluent (reading); conversational (speaking); basic (writing)
Indonesian	Conversational (speaking); basic (reading and writing)

UNIVERSITY

2013-2017 **PhD in Interdisciplinary Conservation and Tropical Peatland Socio-Ecology**
University of Leicester School of Geography, Geology and the Environment
and the Borneo Nature Foundation (BNF)

Supervision: Prof Susan Page (University of Leicester and BNF), Dr Caroline Upton (University of Leicester) and Dr Mark Harrison (University of Leicester and BNF). Doctorate entitled: *(Un)tangling the Net, Tackling the Scales and Learning to Fish: An Interdisciplinary Study in Indonesian Borneo*. Available online: <https://bit.ly/2KshuS0>

- I led a team of 6 research assistants to collect ecological and socio-cultural data over 1.5 years of fieldwork
- Together we conducted the most extensive fish surveys ever done in a tropical peat-swamp habitat
- Data collection included fish surveys, water quality surveys (temperature, pH, nutrient analysis, turbidity, depth etc.), interviews, focus groups and questionnaires

2009-2013 **BSc (Hons) Ecological Science (Conservation and Ecological Management)**
University of Edinburgh School of GeoSciences
Awarded 2:1. Dissertation entitled: *Reconciliation of the Causes of Deforestation in Central Kalimantan with the Implementation of the EU/Indonesia FLEGT-VPA: A Literature Review.*
Courses included: GeoScience Outreach; Spanish (Intermediate); Sustainability, Society and Environment; Soil, Water and Atmospheric Processes; Applied Ecology and Environmental Management; Natural Resource Management; Land Use Policy; Conservation Management; Current Issues in Ecology

PAST APPOINTMENTS

- 2018 **Postdoctoral Research Assistant**
University of Leicester School of Geography, Geology and the Environment
Project entitled: 'SUSTAINPEAT', looking at overcoming barriers to sustainable livelihoods and environments in smallholder agricultural systems on tropical peatland.
Role: Transcribed interviews and assisted with workshops held in Central Kalimantan (Indonesia).
- 2018 **Postdoctoral Research Assistant**
University of Leicester Department of Genetics and Biology
Project entitled: 'Enhancing the development of field skills and student engagement through multimedia technology', purpose of this study is to understand the current use of mobile technologies in field teaching and identify possible areas for enhancing field teaching in the future at the University of Leicester.
Role: I designed the online questionnaires to collect information on the importance of fieldwork for undergraduate experiences and the use of mobile technologies in field courses across the University.
- 2017-2018 **Postdoctoral Research Associate**
University of Leicester School of Geography, Geology and the Environment
Project entitled: 'Development of Research Impact on the Ecosystem Services Provided by Tropical Peatlands'.
Role: I designed a teaching support booklet using tropical peatlands as a case study for the new A-level Geography curriculum in the UK, and I also put together policy briefs on tropical peatlands and the main threats that they face. The teaching resource has been shared widely and is open access (see 'Outreach Publications'). I also organised a teacher away-day focusing on the importance of tropical peatlands (See 'Workshops Organised'). Ten Geography A-level teachers from across Leicestershire were invited to talks held by peatland experts which gave them the chance to ask questions to support them in incorporating tropical peatland case studies into their teaching.

PAPERS (Peer-reviewed Articles, PRA, and Conference Papers, CP)

- (PRA) **Thornton, S.A.**, Dudin, Page, S.E., Upton, C. & Harrison, M.E. (2018): Peatland fish of Sebangau, Borneo: diversity, monitoring and conservation. *Mires and Peat*, 22(04), 1-25. (Online:<http://www.mires-and-peat.net/pages/volumes/map22/map2204.php>); 10.19189/MaP.2017.OMB.313
- (PRA) Husson, S.J., Limin, S., Adul, Boyd, N.S., Collier, S., Cheyne, S.M., D'Arcy, L.J., Dowds, N.W., Dragiewicz, M.A., Dudin, Harsanto, F.A., Houlihan, P.R., Jarrett, B., Kulu, I.P., Marchand, N.C., Morrogh-Bernard, H.C., Page, S.E., Perlett, E.D., Purwanto, A., Rieley, J.O., Capilla, B.R., Salahuddin, Santiano, Schreven, S.J.J., Shinta, E., Struebig, M.J, **Thornton, S.A.**, Tremlett, C., Yeen, Z. and Harrison, M.E. (2017) Biodiversity of the Sabangau Tropical Peat-swamp Forest, Indonesian Borneo. *Mires and Peat*, 22(05):1-50

(Online:<http://mires-and-peat.net/pages/volumes/map22/map2205.php>);
10.19189/MaP.2018.OMB.352

- (PRA) Wijedasa, L. S., Jauhiainen, J., Könönen, M., Lampela, M., Vasander, H., LeBlanc, M. C., ...**Thornton, S.A.** ... & Lupascu, M. (2016). Denial of long-term issues with agriculture on tropical peatlands will have devastating consequences. *Global Change Biology*, 23(3):977-982. (Online: <https://onlinelibrary.wiley.com/doi/full/10.1111/gcb.13516>)
- (CP) **Thornton, S.A.**, Dudin, Limin, S.H., Page, S.E., Upton, C. and Harrison, M.E (2016). Peatland fish of Sabangau, Borneo: Ecology and implications for future monitoring and conservation. International Peatland Congress, 2016, Kuching, Malaysia.
- (CP) **Thornton, S.A.**, Setiana, E., Kris yoyo, Limin, S.H., Page, S.E., Harrison, M.E. and Upton, C. (2016). Fishing communities of Sabangau, Borneo: Knowledges, practices and values. International Peatland Congress, 2016, Kuching, Malaysia.
- (CP) Harrison, M.E., Ripoll Capilla, B., **Thornton, S.A.**, Cattau, M.E and Page, S.E. (2016). Impacts of the 2015 fire season on peat-swamp forest biodiversity in Indonesian Borneo. International Peatland Congress, 2016, Kuching, Malaysia.

In press:

- (PRA) **Thornton, S.A.**, Cook, S., Astiani, D., Hapsari, K.A., Varkkey, H., Cole, L.E.S., Dargie, G.C., Sjogersten, S., Zawawi, N.Z., Page, S.E. (2019). "Pushing the limits": Experiences of Women in Tropical Peatland Research. *Marine and Freshwater Research*, Special Issue on Women in Freshwater Science.

Accepted:

- (PRA) Harrison, M.E., Bramansa Ottay, J., D'Arcy, L.J., Cheyne, S.M., Anderson, K., Anggodo, Belcher, C., Cole, L., Dohong, A., Ermiasi, Y., Feldpausch, T., Gallego-Sala, A., Gunawan, A., Höing, A., Husson, S.J., Kulu, I.P., Soebagio, S.M., Mang, S., Mercado, L., Morrogh-Bernard, H.C., Page, S.E., Priyanto, R., Ripoll Capilla, B., Rowland, L., Santos, E., Schreer, V., Sudyana, I.N., Taman, S.B.B., **Thornton, S.A.**, Upton, C., Wich, S.A., van Veen, F. (2019). Forest and Peatland Conservation in Indonesian Borneo: Challenges and Directions. *People and Nature*.

In progress:

- (PRA) **Thornton, S.A.**, Setiana, E., Kris yoyo, Page, S.E., Harrison, M.E. and Upton, C. (2019) Towards Biocultural Conservation in Indonesia: Fish and Fishing in the Tropical Peatlands of Sebangau. *Geoforum*.
- (PRA) **Thornton, S.A.** (2019) What is 'Interdisciplinary'? Taking the within-individual perspective which fosters more equitable approaches to biocultural conservation. *Geoforum*.
- (PRA) **Thornton, S.A.**, Page, S.E., Harrison, M.E. and Upton, C. (2019). Beyond Ecosystem Services: The Interdisciplinary Assemblage Approach for Biocultural Conservation. *People and Nature*.

AUTHORED BOOKS

In progress:

- Top Spec Geography: The Carbon and Water Cycle.** *Top Spec Geography Series*, Geographical Association, UK. (Co-author with Russell Chapman)

INVITED WORKSHOP PARTICIPATION

- 2019 **Sundaic Freshwater Fishes IUCN Red List Review Workshop, Singapore**
IUCN Global Species Programme, Freshwater Biodiversity Unit. 28th January – 1st February.

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, Conference organised by the Media Discourse Centre, De Montfort University, Leicester. 16th September 2019.

- 2017 **“On Peatlands, Haze and Hope”**
The International School of Hilversum International Baccalaureate Graduation Ceremony (The Netherlands). 16th September 2017.

AWARDS/GRANTS

- 2019 **Early Career Researcher Funding (£676)**
University of Leicester Doctoral College.
- 2018 **ESRC Postdoctoral Fellowship (£110,382)**
UK Economic and Social Research Council. Project entitled: ‘Sustainable Livelihoods in Indonesian Tropical Peatlands’.
British Ecological Society Outreach Grant (£1,895)
British Ecological Society. Awarded to support the exhibition: ‘Into the Swamp: Stories from the Peatlands of Borneo’.
- 2017 **School of Geography, Geology and the Environment (£500)**
University of Leicester. Awarded to support the workshop ‘(Re)connecting Struggles’.
Research Fund of Professor Goodwin (£500)
University of Leicester. Awarded to support the workshop ‘(Re)connecting Struggles’.
The Graduate School Researcher Development Fund (£500)
University of Leicester. Awarded to support the workshop ‘(Re)connecting Struggles’.
- 2016 **Allan Robertson Grant (€250)**
The International Peatland Society. Awarded to help cover costs to attend the IPC 2016 in Kuching, Malaysia
- 2015 **Allan Robertson Grant (€500)**
The International Peatland Society. Awarded to help me complete my PhD data collection in Indonesia.
- 2014 **Rufford Foundation Small Grant (£5,678)**
The Rufford Foundation. Awarded to support PhD fieldwork in Indonesia.
- 2013 **College of Science & Engineering Match-Funding PhD Studentship (£57,893)**
University of Leicester. Awarded for PhD research under the supervision of Prof Susan Page, Dr Caroline Upton and Dr Mark Harrison.
- 2012 **James Rennie Bequest (£500)**
The University of Edinburgh. Awarded to support travel to Indonesia for position as volunteer coordinator for BNF
Peter Marsh Prize (£400)
The University of Edinburgh. Awarded to support travel to Indonesia for position as volunteer coordinator for BNF
- 2011 **James Rennie Bequest (£500)**
The University of Edinburgh. Awarded to support travel to Indonesia for position as volunteer for BNF
- 2010 **James Rennie Bequest (£500)**
The University of Edinburgh. Awarded to support travel to Peru for position as volunteer for Operation Wallacea.

PRIZES/COMPETITION AWARDS

- 2019 **Finalist for Speak Up for Food Security science communication competition**
Global Food Security programme. I won a place on the 2-day science communication Masterclass (14th-15th March). I will then compete for a chance to present at Cheltenham Science Festival 2019 about my research on tropical peatlands, community livelihoods and food security.
- Engaging with Parliament event participant**
I won a place on this half-day training event held by the Industry and Parliament Trust (IPT). This event was sponsored by the ESRC Impact Accelerator Account and the University of Leicester.
- 2017 **Best Postgraduate Researcher Image**
Images of Research, the University of Leicester. Photograph entitled “Senyum”.
<http://www2.le.ac.uk/news/blog/2017-archive/february/from-black-holes-to-ancient-fossils-innovative-images-highlight-university-research>
- 2011 **Stebbing Commemoration Prize**
The University of Edinburgh School of GeoSciences. Awarded for my performance as best student in ‘Applied Ecology and Environmental Management’

TEACHING/SUPERVISION EXPERIENCE

Courses completed:

Preparing to teach in Higher Education, 2013, University of Leicester

Supervision:

2015: Field supervision of two BSc students (University of Leicester) in Indonesia. Project fieldwork lasted one month for each project and projects were entitled:

- “*Testing fish traps for the purposes of conservation research on the Sabangau River, Central Kalimantan*”
- “*Comparison of fish populations between canals with differing conditions in Sabangau*”

Lectures/Seminars:

Living with Environmental Change (2016): Seminar entitled “*Interdisciplinary approaches to environmental change: a case study in Indonesian Borneo*”

Contemporary Environmental Challenges (2015 and 2016): Lecture entitled “*Learning to Fish: Practices, Knowledges and Management in an Indonesian Fishing Assemblage*”

Demonstrating/Tutorials:

Research Design and Methods (with Dissertation Planning) (2017): Demonstrating (7 hours)

Landscape-Ecosystem Dynamics (2017): Tutorials (4 hours)

Working with Geographical Information (2016): Demonstrating (36 hours)

Marking:

Fieldwork Skills for Professional Geographers (BA and BSc) (2017) (8 hours)

Environment Nature and Society (2013 and 2015) (18 hours)

OUTREACH PUBLICATIONS

- *Tropical Peatlands: Their global importance and role in the water and carbon cycles* (2017). This resource is aimed towards supporting teachers in Geography AS and A-levels, as well as other higher-level high school Geography courses. It has been shared widely by the Geographical Association (<https://www.geography.org.uk/Tropical-peatlands>) and IUCN UK Peatland Programme (<https://bit.ly/2Qf0p04>). To date, it has been downloaded over 244 times. It is also available in Indonesian (<https://bit.ly/2KbhpSR>) and Spanish (<https://bit.ly/2IpN3Ni>).

WORKSHOPS/EVENTS ORGANISED

2019 **“Into the Swamp: Stories from the Peatlands of Borneo”, 2-8th April, Newarke Houses Museum, Leicester, UK.**
This 6-day exhibition in Leicester city centre took visitors into the swamps of Borneo, through the photographs and stories of field researchers from the University of Leicester and Borneo Nature Foundation. The exhibition used photographs taken by myself and other field researchers from our research in Sabangau peat-swamp forest. These were accompanied with infographics and other educational materials about tropical peat-swamp forests, their ecology and conservation issues. The event had 248 attendees, and the overall rating from feedback was 9.4/10 (standard deviation of 0.8).

2017 **Tropical Peatland Away-Day for A-level Geography Teachers, 5th December, University of Leicester, UK.**
Geography A-level teachers from across Leicestershire were invited to come and listen to peatland experts and have the chance to ask questions to support them in incorporating tropical peatland case studies into their teaching. Talks covered: an introduction to global peatlands, an introduction to tropical peatlands, the role of tropical peatlands in the water and carbon cycles, some of the threats that they face and their importance to communities and livelihoods (globally and locally). 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.

A one-day workshop, which brought together academic staff, students, activists, artists and members of the public to engage in interactive conversations to align and share strategies of solidarity. Scholars were invited who have actively been involved with the Black Lives Matter campaign, activists from the No Dakota Access Pipeline (NoDAPL, North Dakota), Palestinian activists and human rights spokespersons, along with local feminist artists, scholars and authors from Leicestershire. Through interactive presentations speakers shared knowledge on their particular struggles, and with participants explored how different struggles can be recognised, (re)connect and aligned through solidarity, be they anti-colonial, environmental or anti-racist, tackling sexism or capitalism. See the website documenting the workshop here: <https://reconnectingstruggles.wordpress.com/>

EDITORIAL DUTIES AND PROFESSIONAL MEMBERSHIP

Reviewer for Journals: *Social and Cultural Geography*
People and Nature

Member of:

UK Tropical Peatland Working Group

International Peatland Society:

- Peatlands and Environment Commission
- Peatlands and Society Commission

British Ecological Society

WI-IUCN SSC Freshwater Fish Specialist Group

Society for Conservation Biology

PRESENTATIONS

2019 **“An interdisciplinary study of the peatland fish of Sebangau: Fish diversity and the important of fish and fishing to local communities”**

Seminar given at Nanyang Technological University, Asian School of the Environment. [Oral]

- 2018 ***“An interdisciplinary study of the peatland fish and fishing in Sebangau, Indonesian Borneo”***
Tropical Peat Ecosystem and Restoration Conference, Palangkaraya, Central Kalimantan, Indonesia, 21-22nd November 2018. [Oral]
“The importance of fish(ing) to tropical peatland communities in Borneo”
50th IPS Anniversary Jubilee Symposium “Peatlands: past, present and future” Rotterdam, Netherlands 11 - 13 September 2018. [Oral]
“The diversity of peatland fish of Sabangau, Central Kalimantan (Indonesia)”
50th IPS Anniversary Jubilee Symposium “Peatlands: past, present and future” Rotterdam, Netherlands 11 - 13 September 2018 [Poster]
“The Tropical Peatlands of Borneo”
Invited Guest Speaker for the Leicestershire and Rutland Wildlife Trust Group meeting, 14th February (UK) [Oral]
- 2017 ***“Peatlands Matter: Ecosystem Services and their importance for livelihoods”***. Presentation at the University of Leicester, Tropical Peatland Teacher Away-Day, 5th December. [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*. Organised by the Borneo Nature Foundation and University of Exeter, Falmouth Campus (UK). [Oral]
“On Peatlands, Haze and Hope”
Invited Keynote speaker at the International School of Hilversum International Baccalaureate Graduation Ceremony (The Netherlands) [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: Knowledges, practices and values”
International Peat Congress in Kuching, Malaysia (August 15th-19th, 2016) [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) in 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 (Indonesia) [Oral]
- 2014 ***“Ecosystem and cultural values of forest in Indonesia”***.
The Annual Conference of the Society for Tropical Ecology (gtö) in Freising, Germany (February 24th-March 1st, 2014) [Poster]
“Ecosystem and cultural values of forest in Indonesia”
The Scottish Tropical Ecology and Biology Conference in Glasgow (January 25th, 2014) [Poster]
- 2013 ***“Working as a Tropical Ecologist”***
Presented at the International School of Hilversum to children aged 10-11 years (The Netherlands) [Oral]

BLOG POSTS, NEWSLETTER ARTICLES AND PROJECT FEATURES

- November 2018: “*21st of November: Celebrating fish and the strange species of Sebangau*”. The Borneo Nature Foundation (<http://www.borneonaturefoundation.org/en/research/21st-of-november-celebrating-fish-and-the-strange-species-of-sebangau/>)
- January, 2018: “*(Un)tangling the Net, Tackling the Scales, and Learning to Fish*”. The Borneo Nature Foundation (<http://www.borneonaturefoundation.org/en/research/untangling-net-tackling-scales-learning-fish/>)
- March 2017: “*Stunning images showcase project to support conservation of Indonesian river and forest habitats to protect wildlife*”. The University of Leicester, News and Events (<http://www2.le.ac.uk/news/blog/2017-archive/march/research-project-to-support-conservation-of-indonesian-river-and-forest-habitats-to-protect-wildlife>)
- March 2017: “*Project to support conservation of Indonesian river and forest habitats to protect wildlife*”. The University of Leicester, Press Release. (<http://www2.le.ac.uk/offices/press/press-releases/2017/march/project-to-support-conservation-of-indonesian-river-and-forest-habitats-to-protect-wildlife>)
- March 2017: “*An Interdisciplinary Project: Fish and the Importance of Fish(ing) to Human Communities in Sabangau, Indonesia*”. UK Tropical Peatland Working Group (<https://tropicalpeat.wordpress.com/2017/03/17/an-interdisciplinary-project-fish-and-the-importance-of-fishing-to-human-communities-in-sabangau-indonesia/>)
- March 2016: “*From the river to writing up: the journey of a fish PhD student*”. The Borneo Nature Foundation (<http://outrop.blogspot.co.uk/2016/03/from-river-to-writ-journey-of-fish-phd.html>)
- October 2015: “*The fires of Indonesia: the ongoing human and natural crisis*”. UK Tropical Peatland Working Group (<https://tropicalpeat.wordpress.com/2015/10/>)
- October 2015: “*Sabangau at risk: Fires raging across Bornean Rainforests and Peatlands*”. EcoPost (<https://ecopostblog.wordpress.com/2015/10/15/sabangau-at-risk-fires-raging-across-bornean-rainforests-and-peatlands/>)
- April 2015: “*Discovering the fish of the Sabangau Forest and what they mean to local communities*”. The Borneo Nature Foundation (<http://outrop.blogspot.co.uk/2015/04/discovering-fish-of-sabangau-forest-and.html>)
- September 2014: “*Evaluating the ecological, economic and cultural services provided by freshwater fishes in Central Kalimantan, Indonesia*”. Newsletter of the IUCN Freshwater Fish Specialist Group (page 35-37: <http://www.iucnffsg.org/wp-content/uploads/2014/09/Sept.-FFSG-Newsletter.pdf>)
- June 2014: “*Hello Monday: Sara and her fish*”. The Borneo Nature Foundation (<http://outrop.blogspot.com/2014/06/hello-monday-sara-and-her-fish.html>)

MEDIA ENGAGEMENT

2019

BBC Radio Leicester, 2nd April

Interviewed by Ben Jackson during the opening of the exhibition ‘Into the Swamp’, discussing threats facing peatland areas in Indonesia.

BBC Radio Leicester, 28th March

Interviewed on live radio by Ben Jackson introducing the exhibition ‘Into the Swamp’ and discussing personal experiences of working in tropical peatlands.

ADDITIONAL FIELDWORK & RESEARCH EXPERIENCE

- 2012 **Volunteer Coordinator**
Borneo Nature Foundation, Sebangau Forest (Indonesia)
- 2012 **Deer Monitoring Assistant**
Scottish Natural Heritage, Taynish National Nature Reserve (Scotland)
- 2011 **Research Assistant for Ecological Monitoring and Forest Research Team**
Borneo Nature Foundation, Sebangau Forest (Indonesia)
- 2011-2012 **Biodiversity and Conservation Officer**
Countryside Ranger Service, Edinburgh (Scotland)
- 2010 **Research Assistant**
Operation Wallacea, Pacaya-Samiria Nature Reserve (Peru)

ADDITIONAL SKILLS AND INTERESTS

Microsoft Office (including Microsoft Access), Adobe Illustrator, SPSS statistical software, MiniTab statistical software, MapSource, Social media (Facebook, Twitter, Wordpress blogging), Scuba Diving (Open Water Certified), campaigner for Leicester Friends of the Earth and Reclaim the Power.