Sara Lil Middleton, PhD

Email: saralilmiddleton@protonmail.com
Website: saralilmiddleton.com **Orcid:** 0000-0001-5307-8029

Open Science Advocate with 5+ years of experience developing educational resources and tools that empower researchers to work more transparently, equitably and with integrity.

EDUCATION

DPhil in Environmental Research (NERC DTP), St Cross College, University of Oxford (UK) (2018 – 2024)
MRes Ecosystems and Environmental Change (Distinction), Imperial College London (UK) (2016 – 2017)
BSc Environmental Sciences (First Class Honours), Oxford Brookes University (UK) (2012 – 2015)

EMPLOYMENT AND WORK EXPERIENCE

- **Open Science Center, LMU, Munich** (June 2025 – present)
  Training Development Coordinator and Community Engagement Manager
- **Forestry Journal/Institute of Charted Foresters** (August 2021 – present)
  Social Media Editor
- **University of Oxford** (June 2020 – present)
  Equality and diversity consultant

PROJECT MANAGEMENT

Leadership in Open Science (March 2026 – present)
Coordinator, co-developer and instructor
Project overview: A set of training materials to support emerging Open Science leaders in effective leadership
Responsibilities: Coordinated a team of international experts to co-develop case studies, designing and delivering hybrid workshops anchored in the *Awareness, Acknowledge, Agency, Action and Assess* (5A) framework I conceptualised for emerging Open Science leaders navigating challenges in their research, teaching and advocacy as part of 2026 Open Science Summer School.
Outcomes: Workshops and associated materials received an average recommendation rating of 4.8/5, while 92% of surveyed attendees reported increased empowerment to lead and 84% joined the post-workshop follow up sessions.

FORRT project on authorship practices (August 2022 – present)
Project manager and co-leader
Project overview: An educational toolkit designed to guide academics in ethical and open authorship practices
Responsibilities: Developing project's vision, setting out key deliverables, monitoring team progress and ensuring team feel supported, extensive literature search, consulting experts, writing manuscript, data visualisation, supporting development of Shiny App and syllabus, designing feedback forms, impact monitoring.
Outcomes: Version 1 of toolkit has been used extensively as a resource by 30+ organisations.

BIPOC STEM Network at the University of Oxford (June 2020 – May 2022)
Co-founder and co-convener
Project overview: A network for Global Majority postgraduates, academic, research and support staff working in STEM at the University of Oxford.
Responsibilities: Chief organiser: Intersectional anti-racism multi-media resource bank and student video interview series and social media curation. Co-organising events and meetings with a range of interest groups (e.g. divisional and college staff, academics, students, consultants, schoolteachers), securing grant funding, and setting up an allies book club, a mentoring scheme and schools outreach programme.
Outcomes: 6 events (including a film screening and workshops), 2 awards, featured in Oxford's Black History Month 100 campaign and The Guardian Newspaper.

Human Nature Stories Project (October 2017 – present)
Founder and project manager
Project overview: A visual story-telling project that captures people's relationship to nature and engage with people from around the world in a conversation about nature.
Responsibilities: Interviewing members of the public about their nature story, website maintenance.
Outcomes: Almost 100 nature stories captured across 7 countries in multiple languages, 2 invited talks.

ACADEMIC SERVICE, MENTORING AND TEACHING

- **FORRT (Framework for Open and Reproducible Research Training)** (June 2023 – present)
  Steering group and advisor
- **Plant Perspectives Journal** (May 2023 – present)
  Editorial Board member
- **University of Oxford Public Engagement with Research Seed Fund** (November 2021)
  Funding panel member
- **Reproducible Research Oxford (RRox)** (January 2021 – October 2024)
  Steering group and divisional representative
- **Plant and Zoology Departments, and Doctoral Training Centre, University of Oxford** (2019 – 2020)
  Seminar Convener (postgraduates), teaching (Biology undergraduates) and mentor (high school students)

SYMPOSIA, WORKSHOPS AND WEBINARS

- **Leadership in Open Science Instructor Track Open Science Summer School** (September 2026)
  Instructor, Open Science Center, LMU, Munich
- **Beth Chatto Symposium: Connections through time** (August 2026)
  Invited speaker, University of Essex
- **Citational Justice Workshop** (May 2026)
  Speaker, Society for the Improvement of Psychological Science (SIPS) online
- **FORRT Funding bid writing workshop** (January 2026)
  Instructor, University of Lincoln
- **Big Team Science Workshop** (November 2025)
  Instructor, Universiteit van Amsterdam, Amsterdam
- **Webinar: RainDrop: Plant Life Stories From the First 8 Years** (January 2025)
  Invited speaker, Ecological Continuity Trust
- **COS Webinar: Big-Team Science Applied to Open Educational Resources and Metascience** (July 2023)
  Invited speaker
- **Open Science Community Groningen Event** (June 2023)
  Facilitator, University of Groningen
- **Neurodiversity training for PIs workshop** (May 2022)
  Workshop convener, University of Oxford
- **Behaviour Ecology and Evolution (BEE) student conference** (April 2021)
  Co-organiser, social media and outreach coordinator, University of Oxford
- **Trait-based Ecology Workshop** (June 2019)
  Chief organiser, University of Oxford
- **Science, Ethics and Exploitation: the things we do in the name of science panel event** (June 2019)
  Co-organiser, University of Oxford
- **Balancing Sustainability and Development: Cities in the 21st Century panel event** (August 2017)
  Chief organiser and chair, Imperial College London, South Kensington.

PUBLICATIONS, SCIENCE COMMUNICATION AND OUTREACH

I have communicated my work in environmental science, Open Science and equality issues to various audiences and outlets including **15+** conference presentations/webinars, **10+** infographics, **8** peer-reviewed journal articles, **7** blog articles, **6** case studies**, 4** podcast episodes, **3** preprints, **3** magazine articles, **3** short explainer videos, **2** museum exhibitions, **2** outreach sessions for children, and **1** TV interview.

GRANTS, FUNDING AND SCHOLARSHIPS

- BIPOC STEM Network, University of Oxford (*£2000*). (2020)
- Behaviour Ecology and Evolution conference, University of Oxford, various funders (*£2935*). (2020)
- Bananageddon: Change the System, Change the Story, Kick Starter funding campaign (*US$7208*). (2019)
- Natural Environmental Research Council DTP Scholarship and travel fund *(£8000).* (2018 – 2024)
- Expedition to Costa Rica: The Bananageddon Film, Imperial College London (*£4900*). (2017)
- Oxfordshire Community Scholarship (*£2000*). (2012 – 2015)

PRIZES, AWARDS AND RECOGNITIONS

- Biological Sciences role model (University of Southampton) (2024)
- Oxford DTC Contribution to EEDI Prize: Recognition of excellence for BIPOC STEM Network (2022)
- Oxford University MPLS EDI Awards: Best Initiative for the BIPOC STEM Network (2021)
- The Oxford Black History Month 100 List (featured) (2020)
- IAVS Young Scientist Oral Presentation Award (Honorable Mention) (2019)
- Photo essay winner of the Silwood Park Photography Competition (2017)
- Dan Hemingway (Art) Prize for Creativity, for my large-scale drawings (2010)

RESEARCH EXPERIENCE

DPhil Thesis: Trait-based ecology (January 2019 – October 2024)
DPhil aims to build interdisciplinary bridges in trait-based ecology by examining plant traits across organisational scales and biological disciplines from both theoretical and experimental perspectives. **Methods:** Systematic review, designing field data collection strategy, plant identification, systematic mapping and multivariate analyses. **Analyses:** R, Python, VOSViewer, Bayesian statistics. **Outcomes:** 7 talks, 3 publications, 2 mentees, gave a seminar at Kew Gardens, 1 award and a TV interview.

Plant Functional Trait Course (PFTC): Open Science in plant trait ecology (January 2020 – present)
During the course I developed an understanding of how to embed Open Science practices into trait-based ecology along project pipeline**. Methods:** Designing protocols, data documentation, plant eco-physiological measurements, multivariate analyses. **Analysis:** R. **Outcomes:** Being part of a collaborative and resilient international ECR team (we had to navigate the abrupt end to Perú field course due to start of Covid-19 pandemic in March 2020), 3 publications and 2 blog articles.

MRes Research Project: Invasive plants and climate change (January – September 2017)
Study involved extracting and analysing trait, climate and species distribution data from various open-source databases to forecast invasive species spread in the UK. **Methods:** Database queries, species mapping, multivariate analyses. **Analyses:** MySQL, Panoply, Python, QGIS, R. **Outcomes:** MRes thesis (Distinction), conference poster, becoming an ECR representative in BES Invasion Science Group and data analysist at Ecoflora.

BSc Final Year Research Project: Impact of invasive plants (June 2014 – March 2015)
Project involved literature review, fieldwork in Southern Iceland and supervision of a group of volunteers in the management of the invasive lupin plant. **Methods:** Fieldwork design**,** GPS mapping, quadrat sampling, plant identification, multivariate analysis. **Analyses:** ArcGIS, Google Earth, R. **Outcomes:** BSc thesis (First Class) and report shared with Icelandic Soil Conservation Service and the Icelandic Institute of Natural History.

SKILLS

Computer and design: Microsoft Office (Word, Excel, PowerPoint, Forms) and Canva
Data management and analytical: Image J, GitHub, Mendeley, MySQL, Python, R, Quarto, GitHub, Zotero
Communication/survey platforms: Instagram, BlueSky, LinkedIn, Slack, WordPress, formR, Particify
Languages: Bilingual in English and Italian, conversational French and Spanish

ACTIVITIES AND INTERESTS

I am a member to 10 learned societies/organisations, where I engage more regularly with the following:

- FORRT (Framework for Open and Reproducible Research Training) (2022 – present)
- Plant Functional Trait Course Network (2019 – present)
- International Association for Vegetation Science Young Scientists (2019 – present)
- British Ecological Society (2016 – present)

Other interests: Hiking, surfing, knitting, baking, nature photography, fossil collecting.