



# Matt Lloyd Jones

he/him

 befriendabacterium

## Professional Summary

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I am a researcher who is passionate about making the most of research already conducted and improving the rigour and transparency of research yet to be conducted. Having started out my research career in human geography as an undergraduate and subsequently moved on to a laboratory-based PhD in microbial ecology, I have a practical appreciation and understanding of the hard work that goes into conducting primary research in science as well as social science and the humanities. I now seek to maximise the accessibility and usefulness of primary research for researchers and non-researchers alike, offering my programming and statistical skills towards a combination of evidence synthesis, study design and analysis, and teaching others robust and transparent research methods.

## Education & qualifications

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### EDUCATION

#### Department of Life Sciences, Imperial College London

PHD (MICROBIAL ECOLOGY)

Ascot

Sep 2013 - Sep 2017

#### Department of Geography, University of Oxford

BA GEOGRAPHY (FIRST)

Oxford

Sep 2009 - Sep 2012

### QUALIFICATIONS

#### Fistral Training, University of Exeter

PROJECT MANAGEMENT ESSENTIALS FOR RESEARCHERS

Exeter

May 2022 - May 2022

## Employment

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#### Environment & Sustainability Institute, University of Exeter

POSTDOCTORAL RESEARCH FELLOW

Penryn

Apr 2019 - present

#### Evidence, Environment Agency

TEAM MEMBER (INTERN)

Bristol

Jul 2018 - Oct 2018

## Skills

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### STATISTICS & PROGRAMMING

- **10 years** experience in parametric statistics and non-parametric statistics including power analysis, linear models, generalised linear mixed models, ordination and machine learning techniques.
- **10 years** experience programming in R including statistics, figure production, data wrangling, text processing and web scraping/web APIs.
- **>2 years** experience in document markup in RMarkdown, Quarto and LaTeX - including for the production of PDF and Word documents, website content and presentations. This CV was produced using `rmarkdown` and the `vitae` package!
- **2 years** experience in interactive dashboard development in RShiny
- **3 years** experience in using git and GitHub for version control for academic research projects and software development
- Learning UNIX and python programming

## EVIDENCE SYNTHESIS (SYSTEMATIC REVIEW & META-ANALYSIS)

- **Protocol design and pre-registration**
- **Systematic searching** (e.g. search design; processing bibliographic data in R)
- **Study screening** (e.g. in Rayyan and R)
- **Data extraction, wrangling and standardisation** (e.g. extraction from plots; individual participant data processing; effect size calculation)
- **Meta-analytical modelling** (e.g. fixed, random & mixed effects models; repeated measures designs; sensitivity analyses)
- Systematic review **project management** (e.g. training, task allocation)

## OTHER

- **Bioinformatics** in UNIX and R (e.g. QIIME, DADA2)
- **Laboratory experience** (e.g. culture-based techniques, molecular biology, amplicon sequencing, spectrophotometry, flow cytometry, robotic pipetting, microscopy, tissue culture, field sampling and processing).
- **Ethics applications** for research (including obtaining approval from Medical School research ethics committees)
- **Project management** techniques (e.g. Sprint, kanban, research-specific techniques)

## Teaching/training experience

- **On-the-job supervision and training** of PhD students and national and international collaborators in statistics, R programming and evidence synthesis (2019-present; University of Exeter)
- **Delivery of workshops on open research practices** including preregistration, preprinting, and code and data sharing as part of the UKRN's 'Train the Trainer' programme and Exeter Data Analytics Hub (Summer 2023; University of Exeter)
- **Teaching and assessment of medical students** on 2 Special Study Units (SSUs) on AMR in the environment (February and December 2021; University of Exeter)
- **Formal supervision of two Master's student projects** who both achieved Merits (2015-2017; Imperial College London)
- **Teaching of Master's and undergraduate course content** including statistics and R programming, molecular biology, field ecology, population genetics (2014-2017; Imperial College London)

## Membership and service

### MEMBERSHIP

#### Society for Open, Reliable and Transparent Ecology and Evolutionary Biology (SORTEE)

MEMBER

Glasgow

Dec 2020 - present

#### British Ecological Society

MEMBER

London

Feb 2020 - present

#### Microbiology Society

MEMBER

London

Jan 2020 - Jan 2022

### SERVICE

#### University of Exeter Data Analytics Hub

WORKSHOP ORGANISER/DELIVERER

Penryn

Jun 2023 - present

#### Evidence Synthesis and Meta-analysis in R Conference

CONFERENCE ORGANISER

Online

Jun 2022 - Mar 2023

## Talks

- Does antibiotic use in beef cattle production drive antibiotic resistance? (Invited talk)** *OECD-CRP Symposium (Edinburgh)*  
22 Apr 2023
- Does injecting and feeding beef cattle antibiotics increase antibiotic resistance levels in their faeces? A systematic review and meta-analysis (Conference talk)** *EDAR6 (Gothenburg)*  
25 Sep 2022

## Distinctions

- NERC COVID-19 Digital Sprint Hackathon 2020 (Team Leader, £1500 second prize)** *London*  
NERC *Jul 2020*
- Gibbs Prize (Best results in Final Honour School)** *Oxford*  
UNIVERSITY OF OXFORD *Oct 2012*
- HPGRG Dissertation Prize** *London*  
HISTORY & PHILOSOPHY OF GEOGRAPHY RESEARCH GROUP *Sep 2012*

## Funding awarded

- Environment Agency** *£196,760*  
ANTIMICROBIAL RESISTANCE (AMR) IN THE ENVIRONMENT: BIOAEROSOLS *Aug 2022 - Mar 2023*
- GW4** *£5000*  
EXPLORING ANTIBIOTIC USE PRACTICES IN LIVESTOCK PRODUCTION THROUGH A NOVEL, GAME-BASED APPROACH *Jul 2020 - Mar 2021*

## Publications

### IN PREP

- A systematic review of the relationship between antibiotic use and resistance in beef farming** *In prep*  
ML JONES, A BETHEL, A. PERALTA, A. LEONARD, MP QUIROGA, J DOMINGUEZ, N CASANOVA, M FERNÁNDEZ-MIYAKAWA, A SANCHEZ-TOJAR, A PETRONI, W GAZE, R GARSIDE *2023*
- Replaying the tape of ecology to domesticate wild microbiomes** *bioRxiv*  
A PASCUAL-GARCÍA, D RIVETT, ML JONES, T BELL *2023*

### PUBLISHED

- Exploring the potential of using simulation games for engaging with sheep farmers about lameness recognition** *Frontiers in Veterinary Science*  
ML JONES, MS BARNISH, RR HUGHES, AK MURRAY, O MANSOUR, T LONI, HM VICKERY, ML EVANS, L GREEN, N VERDEZOTO *2023*
- Relationships between community composition, productivity and invasion resistance in semi-natural bacterial microcosms** *eLife*  
ML JONES, DW RIVETT, A PASCUAL-GARCÍA, T BELL *2021*
- Review of airborne antimicrobial resistance** *Environment Agency*  
ML JONES *2020*
- Uncovering the rules of microbial community invasions** *Nature ecology & evolution*  
JCC VILA, ML JONES, M PATEL, T BELL, J ROSINDELL *2019*
- Elevated success of multispecies bacterial invasions impacts community composition during ecological succession** *Ecology Letters*  
DW RIVETT, ML JONES, J RAMONEDA, SB MOMBRIKOTB, E RANSOME, T BELL *2018*
- Biotic resistance shapes the influence of propagule pressure on invasion success in bacterial communities** *Ecology*  
ML JONES, J RAMONEDA, DW RIVETT, T BELL *2017*