# BENJAMIN JOSHUA BURGESS

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London/Cambridge

- High-level research skills, with projects published in top peer-reviewed scientific journals.
- Over six years' experience in using R to conduct statistical analyses (e.g., meta-analyses and generalised linear mixed models). Additionally developed a statistical R package, openly available through CRAN.
- Extensive experience in meta-analyses and evidence synthesis, having directed or supported several synthesis projects. Likewise identified significant statistical errors in multiple prominent meta-analyses.
- Strong leadership skills, having led multiple collaborations and supervised several student research projects.
- Regularly undertake self-directed learning (e.g., Shiny and network meta-analyses) to diversify skillsets.

# **EDUCATION**

#### PhD

## Computational Ecology - University College London - Pass with no corrections

Oct 17 - Dec 21 Thesis Title: Null model detection of multiple stressor interactions in aquatic ecosystems.

- Investigated complex systems alongside researchers in academia and industry (DeepMind).
- Published a meta-analysis on multiple stressor effects in a pre-eminent ecological journal.
- Led senior researchers in an international collaboration to showcase that multiple statistical errors had occurred in several highly cited meta-analyses, leading to incorrect conclusions.
- Developed an R package (multiplestressR), openly available via CRAN, to simplify statistical analyses and prevent methodological errors from occurring.
- Collaborated on an international project to conserve endangered tulips. Constructed analytical pipelines and revised manuscripts prior to publication in a high-quality journal.
- Presented research findings to large audiences (50+ people) within UCL, at invited external seminars (University of Sheffield), and multiple British Ecological Society conferences.

#### **MRes**

# Computational Methods in Ecology and Evolution - Imperial College London - Distinction

Oct 16 - Sep 17

- Studied topics including R, Python, statistics, and Geographic Information Systems.
- Undertook a research project using a complex mechanistic model to predict global wildfires.

#### BSc (Hons)

#### Environmental Sciences - University of Nottingham - First Class

Sep 13 - Jun 16

• Studied subjects such as climate change science, biogeochemistry, and Arctic fieldwork.

## RECENT WORK EXPERIENCE

#### Jan 22 - Present Visiting Researcher - University College London

- Applying a novel machine learning tool to screen abstracts for a large systematic review.
- Finalising several manuscripts prior to submission to high impact scientific journals.

#### Dec 21

#### Administrative Support - North Uttlesford Covid-19 Mass Vaccination Centre

• Provided technical support to a medic, directly assisting the vaccination of ~1000 people.

#### Sep 20 - Jun 21

#### Undergraduate Dissertation Supervisor - University College London

- Co-supervised three student research projects involving complex statistics (meta-analyses).
- One student was awarded the departmental prize for best third year dissertation in biology.

#### Nov 18 - Dec 19 Postgraduate Teaching Assistant (Postgraduate Ecologists) - University College London

- Taught advanced statistics (e.g., mixed effect models), intermediate R, and basic Python.
- Graded coursework and provided detailed feedback on how future work could be improved.

#### Oct 17 - Dec 19

## Postgraduate Teaching Assistant (Undergraduate Biologists) - University College London

- Introduced cohorts of ~80 students to coding, statistics and data analysis in R.
- Explained challenging analytical concepts in simple terms to students of all abilities.