

# DAVID Y. SHEN



## EDUCATION

### MSci Biodiversity and Conservation | University College London (UCL), UK

2017 – Present (Expected 2021)

Overall (as of 2020)

First Class (73%)

Modules including: Computational Biology (70%), Methods in Ecology & Evolution (74%), Biochemistry and Molecular Biology (77%)

### Study Abroad Program | University of Queensland, Australia

2019 – 2020

Result

GPA 6.33

Modules including: Conservation and Wildlife Biology (83%), Macroecology and Biogeography (86%), Landscape Ecology (86%)

### GCSEs & A Levels | Birkdale School, UK

2012 – 2017

A Level Biology (A), Chemistry (A), Maths (A), Extended Project Qualification (A)

AS Level Further Maths (A), Geography (A)

12 GCSEs (A\* to B) including Maths, Physics, Chemistry, Biology, English Language and Literature



## RESEARCH EXPERIENCE

### Ecosystem Service Resilience Modelling | UCL and SHEFS

2020 – Present

As part of the Wellcome Trust funded SHEFS project (Sustainable & Healthy Food Systems), supervised by Prof Richard Pearson, I use novel species distribution models (SDMs) that incorporate biotic interactions to better predict changes in species distribution under different land-use and climate scenarios. I model the future distributions of the mopane worm (*Gonimbrasia belina*), an edible insect found in southern Africa with important food security and economic implications. These will be used to help inform potential action and policy to mitigate the potential negative impacts.

### Predicting Bird Species Distribution Size | University of Queensland

2020 – Present

For this project, I work in collaboration with Isaac Towers and Prof Cynthia Riginos at UQ to use eBird occurrence data of Australian endemic bird species and bioclimatic variables to predict species range sizes and test the climate stability hypothesis. This project evolved out of a piece of coursework aiming to test the climate stability hypothesis during my year abroad at the University of Queensland. I gained experience working with and manipulating extremely large data sets in R. We aim to submit the manuscript within the next few months to the Journal of Biogeography with myself as the primary author.

### Developing Protected Areas | University of Queensland

2019

As part of the BIOL3000 Conservation course, I simulated designing a protected area on the island of Tasmania using the Marxan software package. This project gave me valuable insight into the design and creation of effective protected areas that are economically viable and adequately conserve biodiversity. This project formed the basis of a talk I gave at the UCL Biology Society conference on how to design effective protected areas.

## **Field Assistant | UCL**

2018

As the field assistant, I helped UCL students with their research projects and assisted the course organisers in running the 1-week course. This role gave me valuable fieldwork skills and experience running a field trip and working with staff.

## **Volunteer Research Assistant | Big Wasp Survey**

2018

As part of Prof Sumner's Big Wasp Survey, I helped with identification of the sent in wasp specimens. This involved using microscopes to identify wasp species by assessing their facial markings.



## **RELEVANT RESEARCH SKILLS**

- Competent in using R for analysis and data manipulation including statistical analyses, modelling and spatial data analysis
- Experience typesetting using LaTeX
- Competent terrestrial and marine field skills in observational and manipulative experiments, including holding a PADI Open Water Licence



## **ACTIVITIES**

### **Academic Secretary | UCL Biology Society**

2020 - Present

As the academic secretary, I primarily manage the academic aspects of the society, including inviting academics to give talks, running academic support for other students, and organising our annual Cumberland Lodge weekend conference together with Professor Nick Lane. I also work with other members of the committee in organising social events and day-to-day running of the society.

### **ChangeMakers | UCL**

2018 - 2019

As part of the UCL ChangeMakers program, I work alongside staff and students to improve teaching and interactions at UCL. One of our main initiatives this year includes organising social events for staff and students to create an informal environment for dialogue and communication.

### **Social Secretary | UCL Karate Club**

2018 - 2019

In this role, I prepared and organised events for members of the Karate Club, as well as administrative tasks and branding as part of the club committee. I was also the first point of call for new members and assisted them with questions they had.

### **Publicity Officer | UCL Music Society**

2017 - 2018

As the Publicity officer, I was tasked with publicising upcoming concerts and events through social media and producing posters and leaflets.



## **REFERENCES**

Prof Cynthia Riginos – University of Queensland: c.riginos@uq.edu.au

Prof Richard Fuller – University of Queensland: r.fuller@uq.edu.au

Dr Julia Day - UCL: j.day@ucl.ac.uk