

# 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

I work in collaboration with Isaac Towers and Prof. Cynthia Riginos at the University of Queensland to use eBird occurrence data of Australian endemic bird species and climate variables to predict species range sizes and test the climate stability hypothesis. I gained experience working with and manipulating large data sets in R. We aim to submit our manuscript entitled "*Climate stability as a predictor of range size: A case study using Australian endemic birds*" to the Journal of Biogeography with myself as the first 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 titled "*Reserve and Protected Area Design*".

### **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 at the Blakeney Point Research Station. 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
- Experienced in 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 Prof. 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 was organising social events for staff and students to create an informal environment for dialogue and networking.

### **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.

## **PROFESSIONAL AFFILIATIONS**

- British Ecological Society (BES) - Member

## **REFERENCES**

### **Prof. Cynthia Riginos**

School of Biological Sciences  
University of Queensland  
Australia  
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### **Prof. Richard Fuller**

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### **Dr. Julia Day**

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