

# MD ANWAR HOSSAIN

**Data Science | Quantitative Ecology | Computational Modeling | Climate Change**

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Melbourne, VIC, Australia

## SUMMARY

**Data Scientist and Quantitative Ecologist** with 8+ years of experience in **Big Data analysis, spatial modeling**, and **species distribution modeling** using **R, ArcGIS, and MySQL**. Skilled in integrating complex datasets, delivering actionable insights, and leading successful projects, including securing AU \$132,000 in funding. Published extensively in top-tier journals with over 200 citations. Passionate about leveraging data to solve complex problems and drive impactful solutions.

## EXPERIENCE

### Consultant

**WildTeam** ([www.wildteam.org.bd](http://www.wildteam.org.bd))

2023-present Dhaka, Bangladesh

I was tasked to assist in project development, monitoring, proposal writing and submission to secure funding, alongside improving learning resources. To do this, I engaged in collaborative efforts within an international consortium to draft a funding proposal aimed at conserving tigers and their habitats in Bangladesh. Through this I secured funding of AU \$132,000. Additionally, I designed and led a comprehensive 'data science for environmental research' training course, which achieved a commendable completion rate with over 90% attendee satisfaction.

### Quantitative Ecologist (PhD Research)

**University of Melbourne**

2018-2023 Melbourne, VIC, Australia

I needed to analyse historic occurrences of Australian grasshoppers to understand their patterns of diversity and adaptive strategy in response to variable environmental conditions. To achieve this, I prepared historic occurrence datasets of grasshoppers in Australia and integrated various spatial datasets into advanced methodologies such as generalized dissimilarity models and species distribution models. The outputs of my work were published in renowned peer-reviewed journals.

### Quantitative Ecologist (MPhil Research)

**University of Melbourne**

2016-2018 Melbourne, VIC, Australia

I undertook a comprehensive analysis of the vulnerability of global freshwater crayfish to climate change. This involved meticulously collecting and synthesizing physiological, morphological, and life-history traits of freshwater crayfish, which were then integrated with habitat connectivity features such as barriers to migration. Through a trait-based vulnerability assessment, I discerned the susceptibility of various species and geographic locations to the impacts of climate change. The quality of my analyses was met with commendation, culminating in the attainment of a 90% mark in my thesis examinations as well as publications in high-impact journals.

## AWARDS

 **Gold Medal**

 **Dean's Award**

## SKILLS

**R** **Julia** **MySQL** **ArcGIS**

**Mentorship** **Project Planning**

**Leadership** **Project Management**

**Problem Solving** **Organizational Skills**

**Project Monitoring and Evaluation**

**Quantitative Modeling** **Spatial Analysis**

**Species Distribution Modeling (SDM)**

**Stakeholder Engagement**

## Teaching and Research Assistant

**University of Melbourne**

2019-2022 Melbourne, VIC, Australia

I completed multiple casual contracts at the University of Melbourne. These contracts encompassed diverse responsibilities, ranging from data collection for utilization in computational models to leading lectures and grading exam papers and assignments for 3<sup>rd</sup> Year and master's courses of Environmental Risk Assessment. I have earned positive feedback, leading to the successive renewal of contracts one after another.

## EDUCATION

Doctor of Philosophy (PhD) in Quantitative Ecology  
**University of Melbourne**

📅 2018-2023    📍 Melbourne, VIC, Australia

Master of Philosophy (PhD) in Quantitative Ecology  
**University of Melbourne**

📅 2016-2018    📍 Melbourne, VIC, Australia

Master of Science in Zoology (Wildlife)  
**University of Dhaka**

📅 2011-2012    📍 Dhaka, Bangladesh

Bachelor of Science Honors in Zoology  
**University of Dhaka**

📅 2007-2011    📍 Dhaka, Bangladesh

Marks

**90** / 100

GPA

**3.93** / 4.0

CGPA

**3.83** / 4.0

## CERTIFICATION

**Project Planning for Wildlife Conservation**

WildTeam (www.wildteam.org.uk)

**Project Management for Wildlife Conservation**

WildTeam (www.wildteam.org.uk)

**Project Monitoring and Evaluation for Wildlife Conservation**

WildTeam (www.wildteam.org.uk)

## PUBLICATIONS

See my list of scientific publications and associated citations in Google Scholar here:

🔗 <http://go.unimelb.edu.au/b6qr>

## VOLUNTEERING

Reviewer for **Wiley and Elsevier Journals**

Periodically donate **Blood**

## STRENGTHS



### Outstanding academic performance

Strong academic foundation in Ecology, Environment, and Spatial research.



### Creative Problem Solving

Utilize innovative scientific methods to solve novel environmental challenges, evident through high quality publication in international peer-reviewed journals with over 200 citations in Google Scholar.



### Strong Analytical Skills

Expert in utilizing Data Science tools and techniques for analysing Big Data ranging from various sources from acquisition, curation, model fitting, analysis in High Performance Computing System (HPC), visualization and reporting.



### Conference Presentation

Participated over 10 international conferences for presentation of my research findings in China, Australia, USA, Colombia, and Canada.

## REFERENCES

### Dr Michael Kearney

Professor, School of BioSciences  
University of Melbourne

Email: [m.kearney@unimelb.edu.au](mailto:m.kearney@unimelb.edu.au)

### Dr José Lahoz-Monfort

Senior Research Fellow, School of BioSciences  
University of Melbourne

Email: [jose.lahoz@unimelb.edu.au](mailto:jose.lahoz@unimelb.edu.au)