Dr Baptiste J. Wijas

bwijas@gmail.com | +61 403 045 972

EDUCATION

PhD Candidate (Science) **2019 – 2023**

School of Biological, Earth & Environmental Sciences, University of New South Wales, Australia
Thesis title: 'The loss of a terrestrial top predator influences the functioning of brown food webs in Australian drylands.'

Bachelor of Science, Zoology (Honours Class I) **2014 – 2018**

University of Glasgow, United Kingdom
Thesis title: 'Comparison of the efficiency of a Transect, Grid and Web layout for small mammal live trapping and an investigation in small mammal microhabitat preferences in the West of Scotland.'

PROFESSIONAL RESEARCH EXPERIENCE

Visiting Academic **2024 – Present**

School of Environment, The University of Queensland, Australia

- Developed collaborations with the FIRE lab and the Letten Lab.
- Collaborated with an industry partner using remote sensing to measure carbon stocks.

Postdoctoral Research Associate **2024 – Present**

Cary Institute of Ecosystem Studies, USA

- Secured $17,900 from the International Long Term Ecological Research Network to run a wood decay experiment across 6 Terrestrial Ecosystem Research Network SuperSites.
- Compiled a global termite mound trait database.

Postdoctoral Research Associate **2023 – 2024**

Department of Biology, University of Miami, USA

- Bioinformatics and Bayesian analyses using Unix and high-performance computing.
- Initiated and international network of termite ecologists across 5 continents.
- Ran chemical analyses including acid hydrolysis and elemental analysis.

PhD Candidate **2019 – 2023**

School of Biological, Earth & Environmental Sciences, University of New South Wales, Australia

- Team leader and mentor for groups of volunteers during remote fieldwork, including development of new camera trapping methodologies.
- Collaborated with an NGO, Bush Heritage.

Research Assistant **2020**

School of Biological, Earth & Environmental Sciences, University of New South Wales, Australia

- Carried out standard wildlife trapping methodologies.

Research Assistant **2018**

Water Voles in the City project, University of Glasgow, UK

- Working with endangered mammal species and studying movement ecology using spatial analyses in GIS.

TEACHING EXPERIENCE AND ACADEMIC SERVICES

Lecturer **2024**

Department of Biology, University of Miami, USA

- Gave a guest lecture for an Experimental Design course.
- Led a course (BIL330-R – Ecology) including designing parts of the curriculum, lecturing, designing and grading assignments and addressing student concerns.

Demonstrator **2020 – 2023**

School of Biological, Earth & Environmental Sciences, University of New South Wales, Australia

- BIOS3601 Advanced Field Biology Course: I mentored students to carry out standardised fieldwork methods, design their own experiments and use R to run data analyses.

Scientific Peer Reviews: 27 pre-publication reviews for 16 journals including *Nature Communications* and *PNAS.*

SCHOLARSHIPS AND AWARDS

Research Training Program Scholarship ($27,000 p/a)	2019 – 2022
UNSW EERC Outstanding presentation in Evolution and Ecology ($100)	2020
Glasgow naturalist Blodwen Lloyd Binns prize - best paper by young career scientist	2019

RESEARCH GRANTS

ILTER Research Initiatives Scheme ($17,900)	2024 – 2026
New Phytologist Travel Grant ($1,200)	2024
Nature Foundation PhD/Masters Grand Start Grants ($3,000)	2020
CES Postgraduate Grant ($500)	2020
Holsworth Wildlife Research Endowment ($6,360)	2020
EERC Postgraduate Grant ($500)	2019

PUBLICATIONS

H-index: **7**, i10 index: **5**, Total citations: **121**, Publications: **21 (14 lead; 2 invited)**

Wijas, B.J. (2025) Engineering biodiversity from within: Termites reshape deadwood as habitat in subtropical forests. *Functional Ecology*.

Wijas, B.J., … Zanne, A.E. (2025) Decadal recovery of fungal but not termite deadwood decay in tropical rainforest. *Journal of Applied Ecology.*

Bruce, T. … **Wijas, B.J.**, … Luskin, M.S. (2025) Large-scale and long-term wildlife research and monitoring using camera traps: a continental synthesis. *Biological Reviews.*

Wijas, B.J., … Zanne, A.E. (2025) Faster than expected: Release of nitrogen and phosphorus from decomposing woody litter. *New Phytologist.*

Xu, T., … **Wijas, B.J.**, … Letnic, M. (2024) Impacts of wild herbivores on soil seed banks are explained by precipitation conditions in protected areas across semi-arid to arid regions. *Journal of Applied Ecology.*
Wijas, B.J., … Zanne, A.E. (2024) The role of deadwood in the carbon cycle: Implications for models, forest management, and future climates. *Annual Review of Ecology, Evolution, and Systematics*.
Wijas, B.J., … Zanne, A.E. (2024) Drivers of wood decay in tropical ecosystems: Termites versus microbes along spatial, temporal and experimental precipitation gradients. *Functional Ecology.*
Duan, E.S., … **Wijas, B.J.**, … Allison S.D., (2024) Wood microclimate as a predictor of carbon dioxide fluxes from deadwood in tropical Australia. *Biogeosciences.*
Calvert, J., … **Wijas, B.J.**, … Zanne, A.E. (2024) Comparing the effects of internal stem damage on aboveground biomass estimates from terrestrial laser scanning and allometric scaling models. *Methods in Ecology and Evolution.*
Yatsko, A.R., **Wijas, B.J.**, … Zanne, A.E. (2024) Why are trees hollow? Termites, microbes, and tree internal stem damage in a tropical savanna. *Functional Ecology.*
Wijas, B.J., … Cornwell, W.K. (2024) Spatial variability in the contribution of termites to the decay of plant detritus. *Austral Ecology.*
Law, S.J., … **Wijas, B.J.**, … Paul Eggleton (2024) The challenge of estimating global termite methane emissions. *Global Change Biology.*
Wijas, B.J., … McCafferty, D.J. (2023) Home ranges of fossorial water voles (*Arvicola amphibius*) in urban grasslands. *Mammal Communications.*
Wijas, B.J., … Letnic, M. (2023) Herbivores disrupt the flow of food resources to termites in dryland ecosystems. *Ecology.*
Wijas, B.J., … Letnic, M. (2023) Herbivores' Impacts Cascade Through the Brown Food Web in a Dryland. *Ecosystems.*
Wijas, B.J., Lim, S., Cornwell, W. (2022) Continental-scale shifts in termite diversity and nesting and feeding strategies. *Ecography.*
Mallen-Cooper, M., …, **Wijas, B.J.**, … Eldridge, D.J. (2022) Global synthesis reveals strong multifaceted effects of eucalypts on soils. *Global Ecology and Biogeography.*
Mills, C.H., **Wijas B.J.**, Gordon C., Lyons M., Feit A., Wilkinson A., Letnic M. (2021) Two alternate states: shrub, bird and mammal assemblages differ on either side of the Dingo Barrier Fence. *Australian Zoologist.*
Wijas, B.J. & Atkinson, J. (2021) Termites in restoration-the forgotten insect? *Restoration Ecology.*
Wijas, B.J., & Letnic, M. (2021) Top-down effects have primacy over bottom-up effects on the population dynamics of a flightless desert bird. *Journal of Arid Environments.*
Wijas, B.J., Stewart, R.A & McCafferty, D.J. (2019) Potential risk of American mink to water vole populations in east Glasgow. *The Glasgow Naturalist.*

CONFERENCE PRESENTATIONS

Ecological Society of Australia Annual Meeting 2024

Title: "Animals as critical drivers of carbon cycling in Australia: a termite case study."

45th New Phytologist symposium 2024

Title: "Non-native wood decay and its effects on saprotrophic fungal communities in tropical ecosystems."

British Ecological Society Annual Meeting 2023

Title: "Dead wood as vectors of carbon and nutrient cycles from tropical to temperate forests."

Savanna Science Network Annual Meeting 2023

Title: “Spatial variability in the contribution of termites to decomposition across precipitation and resource gradients.”

Ecological Society of Australia Annual Meeting 2022

Title: “Termites or microbes: who are the main consumers of wood across a rainfall gradient?”

Ecological Society of America Annual Meeting 2022

Title: “The influence of overabundant herbivores on the functioning of brown food webs in drylands.”

American Geophysical Union Fall Meeting 2021

Title: “The resource-driven role of termites in vegetation decomposition in an arid ecosystem.”

Ecological Society of Australia Annual Meeting 2021

Title: “Termites in restoration - the forgotten insect?”

Ecological Society of Australia Annual Meeting 2020

Title: “The functional role of termites along macro-climatic gradients.”

GUEST SEMINARS

Cary Institute of Ecosystem Studies Invited Seminar 2025

Title: “From deserts to tropical rainforests: unveiling termites’ functions in ecosystems”

INTERNATIONAL NETWORKS

MicrobeNet^{Net} **2025 – Present**

- Participated in a workshop at the University of Tennessee in March 2025 with the purpose of launching the network.
- The aim is to bring together microbial ecologists, modellers, plant ecologists and evolutionary ecologists to improve knowledge on plant-microbial interactions and their flow on effects for ecosystem function at global scales.
- Another aim is to offer opportunities for Early Career Researchers such as myself to be mentored by well-established ecologists.

Global Ecology of Termites International Network (GETIN) **2023 – Present**

- Initiated a global network of ecologists who are interested in termite ecology through which I collated the largest database of termite mound chemistry.

Global Zoogeochemistry Network **2023 – Present**

- Participated in a workshop at Aarhus University, Denmark in October 2023 where a global consortium of ecologists came together to define the current state of knowledge on animals’ roles in carbon cycling.

SCIENCE OUTREACH

ABC Brisbane **2025**

- Gave an interview on Drive with Ellen Fanning on May 13th, about my research on the use of termites in rainforest regeneration.

Cosmos **2023**

- ‘Overgrazing could have significant impacts on the dead vegetation that plays an essential role in Australia’s arid ecosystems’

ABC North and West SA and ABC Dubbo **2023**

- Gave two radio interviews with ABC North and West SA on February 1st and 2nd about my research on kangaroos and brown food webs.

BioReach **2023**

- Went to a Middle School to engage with students about termites and the carbon cycle.

SOCIETIES AND COMMUNITY

Postgraduate committee member, EERC UNSW 2019 – 2020

President, Zoology Society at the University of Glasgow 2017 – 2018

Treasurer, Zoology Society at the University of Glasgow 2016 – 2017

LANGUAGES

French (native), English (native), Spanish (intermediate level).

REFERENCES

Available upon request.