

# Malyon D. Bimler

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## Employment & Education

- 06/2022–current **Postdoctoral Research Fellow**, *The University of Melbourne*, Australia.  
with Prof. Margie Mayfield, full-time appointment
- 11/2021–06/2022 **Postdoctoral Research Fellow**, *The University of Queensland*, Australia.  
with Prof. Margie Mayfield, full-time appointment
- 09/2020–08/2021 **Postdoctoral Research Fellow**, *The University of Queensland*, Australia.  
with Prof. Margie Mayfield, part-time & casual appointment
- 2017–2020 **PhD**, *The University of Queensland*, Australia, *Pass with no changes required*.  
Examined by Prof. Rob Freckleton (University of Sheffield) and Assoc. R.O. Jacopo Grilli (ICTP, Trieste, Italy) — Community Ecology
- 2015–2016 **Masters of Science Part II**, *The University of Canterbury*, New Zealand, *Grade A awarded with Distinction* — Ecology.
- 2008–2012 **Bachelor of Science Honours**, *The University of Glasgow*, UK, *Second Class First Division* — Marine & Freshwater Biology.
- 2005–2007 **Scientific Baccalaureat with International option**, *Cite Scolaire Internationale de Grenoble*, France, *Grade A equivalent*.

## PhD Thesis

- Title *Adding complexity to coexistence: lessons from empirical communities*
- Supervisors Prof. Margie Mayfield, Assoc. Prof. Daniel Stouffer, Prof. John Pandolfi
- Pass with no changes required*, Examined by Prof. Rob Freckleton (University of Sheffield) and Assoc. R.O. Jacopo Grilli (ICTP, Trieste, Italy)

## Publications

- 2023 **Bimler, M. D.**, Mayfield, M. M., Martyn, T. E & Stouffer, D. B., Estimating interaction strengths for diverse horizontal systems using performance data. *Methods in Ecology and Evolution*, <http://doi.org/10.1111/2041-210X.14068>
- 2023 **Bimler, M. D.** & Mayfield, M. M., Ecology: Lifting the curtain on higher-order interactions. *Current Biology*, <https://doi.org/10.1016/j.cub.2022.11.051>
- 2022 Suarez Castro, A. F., Raymundo, M., **Bimler, M. D.** & Mayfield, M. M., 2022. Using multi-scale spatially explicit frameworks to understand the relationship between functional diversity and species richness. *Ecography*, <https://doi.org/10.1111/ecog.05844>. **Winner of the Ecography Award for Excellence in Ecology and Evolution (E4) 2022.**

*Postdoctoral Research Fellow – Mayfield Lab*  
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- 2021 Pastore, A. I., Barabás, G., **Bimler, M. D.**, Mayfield, M. M. & Miller, T. E, 2021. The evolution of niche overlap and competitive differences. *Nature Ecology & Evolution*, <https://doi.org/10.1038/s41559-020-01383-y>
- 2018 **Bimler, M. D.**, Stouffer, D. B., Lai, H. R. & Mayfield, M. M., 2018. Accurate predictions of coexistence in natural systems require the inclusion of facilitative interactions and environmental dependency. *Journal of Ecology*, <https://doi.org/10.1111/1365-2745.13030>
- 2018 Cirtwill, A.R., Dalla Riva, G. V., Dehling, M., Gaiarsa M., **Bimler, M. D.**, Cagua, F. & Coux, C, 2018. Species roles in food webs. *Food Webs*, <https://doi.org/10.1016/j.fooweb.2018.e00093>

## Workshops & other training

- 2019 MELiSSA (Micro-Ecological Life Support System Alternative) Summer University, Station Biologique Besse et Sainte Anastaise (France).  
A European Space Agency project for circular life support systems.
- 2017 AMSI Winter School 2017: Computational Foundations of Data Science  
Postgraduate courses in Inverse Problems, Bayesian Inference, High-dimensional Statistics, Machine Learning, Nonlinear Optimisation and Numerical Linear Algebra.
- 2016 Structured Programming for Scientific Computing: C and OpenMP
- 2015 Software Carpentry Workshop: Unix shell, R, version control with Git

## Scholarships, Grants & Awards

- 2021 UQ Research Stimulus (Fellowship) - 6 month postdoctoral salary
- 2019 SEEM Conference - Best Student Talk
- 2018 ESA Conference - Student talk prize for technology and modelling innovation in conservation (AU\$250)
- 2018 School of Biological Sciences Conference Support Award (AU\$1600)
- 2017 Australian Research Higher Degree Scholarship (full tuition and living allowance)
- 2016 Graduate Women Canterbury Trust Travel Award (NZ\$1000)
- 2016 Royal Society of New Zealand Canterbury Branch Travel Award (NZ\$1000)
- 2016 School of Biological Sciences Travel Grant (NZ\$250)
- 2016 UC Masters Scholarship ( NZ\$6500)
- 2015 Miss EL Hellaby Indigenous Grasslands Research Trust (NZ\$20,000)
- 2011 Glasgow University Summer Scholarship (GB£900)
- 2008 Dean's List Award at the University of Glasgow - Biology

## Services & Teaching

Reviewer for *Nature Climate Change* (IF=20.8), *Current Biology* (IF=10.8), *Ecology Letters* (IF=9.5), *Oikos* (Ecology journal, IF = 3.468), *The Journal of Ecology* (IF = 5.68) and *Functional Ecology* (IF = 5.04)

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- 2020 Casual appointment to help develop teaching materials for a statistics lecture taught in a 3<sup>rd</sup> year *Animal Behaviour* undergraduate course
- 2018 - 2019 Tutor for 2<sup>nd</sup> and 3<sup>rd</sup> year undergraduate courses, including *Biostatistics & Experimental Design, Analysis & Communication of Biological Data, Ecology, and Zoology*
- 2018 Student representative panel member for a senior academic hire at UQ
- 2017 Helper for multiple Software Carpentry workshops on PYTHON, Unix and Git

## Conferences

- 2019 Statistics in Ecology and Environmental Monitoring, Wellington (NZ).  
Talk: "Interaction networks to reveal the structure of complex plant communities"
- 2019 MELiSSA (Micro-Ecological Life Support System Alternative) Summer University, Station Biologique Besse et Sainte Anastaise (France).  
Talk: "Ecology and the MeLiSSA Project"
- 2018 Ecological Society of Australia, Brisbane.  
Talk: "Using networks to place plant interactions in the context of multispecies coexistence"
- 2018 Ecological Society of America, New Orleans.  
Talk: "Accurate predictions of coexistence in natural systems requires the inclusion of facilitative interactions and environmental dependency"
- 2018 American Society of Naturalists stand-alone conference, Asilomar.  
Talk: "Assessing how microclimate impacts coexistence dynamics: a case study of Western Australian annual plants"
- 2016 Gordon Research Conference & Seminar: "Unifying Ecology across Scales"  
Poster: "Scaling competition from pots to plots — Beware your neighbours! "

## Computer skills

- Advanced R, STAN
- Intermediate JAGS, L<sup>A</sup>T<sub>E</sub>X, Linux, Git, Markdown,
- Beginner PYTHON, C

## Non-Academic Service

- 2020-current Committee Member for *Burn Arts, Inc.*, a local non-profit dedicated to the development of participatory arts and culture in SE Queensland.

## References

- Prof. Margie [margie.mayfield@unimelb.edu.au](mailto:margie.mayfield@unimelb.edu.au)  
Mayfield School of BioSciences, University of Melbourne, Australia.
- Assoc. Prof. [daniel.stouffer@canterbury.ac.nz](mailto:daniel.stouffer@canterbury.ac.nz)  
Daniel School of Biological Sciences, University of Canterbury, Christchurch, New Zealand.  
Stouffer

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