

# Simon Kapitza

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Quantitative & Applied Ecology Group  
University of Melbourne  
Parkville, VIC, 3010, Australia

Macroecology Lab  
Universität Potsdam  
Maulbeerallee 3, 14469 Potsdam

I am an interdisciplinary global change ecologist researching interactions between socio-economic and biophysical drivers of biodiversity change. In my PhD I developed an integrated assessment framework linking a GTAP CGE model with a bespoke fractional land-use change model to make local to global macro-ecological forecasts under SSP-RCP future scenarios.

## Skills

<b>Leadership</b>	Coordination of interdisciplinary, international research; planning and co-hosting conference symposium.
<b>Data Analysis</b>	Proficient R user with experience in knitr, sweave, and RMarkdown, as well as integration of basic C++ via the Rcpp package. Particularly experienced with very large spatial data sets and parallel processing (MaxEnt, Regression Trees, Linear Mixed Models). GitHub for version control. Intermediate experience with Python, SQL, ArcGIS, QGIS.
<b>Languages</b>	<b>German</b> (native) <b>English</b> ●●● <b>Spanish</b> ●●○ <b>French</b> ●○○

## Education

<b>2017 - present</b>	<b>PhD - Science</b> <i>University of Melbourne</i> Supervisors: Prof Brendan Wintle, Dr Nick Golding Project: Global integrated assessment of biophysical and socioeconomic drivers of biodiversity change
<b>2013 - 2016</b>	<b>MSc - Environmental Sciences (High Distinction)</b> , <i>Albert-Ludwigs-Universitaet Freiburg</i> Supervisors: Prof Carsten Dormann, Prof Brendan Wintle Project: Alleviating climate change uncertainty through improved modelling: Australian Great Desert Skinks under a changing fire regime (in collaboration with QAEco)
<b>2009 - 2013</b>	<b>BSc Hon - Environmental Science and Politics</b> <i>University of Stirling, University of Sydney</i>

## Professional experience

<b>2020 - present</b>	<b>Research and Teaching Assistant</b> , Macroecology Lab (University of Potsdam)
<b>2016-2019</b>	<b>Research Assistant</b> , Quantifying Impacts of Trade on Biodiversity Project, The Spatial Solutions Fire Ecology Project (University of Melbourne)
<b>2014 - 2015</b>	<b>Research Assistant</b> , Climate Data Analysis and Modelling (Fraunhofer ISE)
<b>2012 - 2013</b>	<b>Social Media Manager</b> , Creative Stirling
<b>2012</b>	<b>Project Management Intern</b> , German Embassy Colombo
<b>2011</b>	<b>Field Intern</b> , German Agro Action e.V. Cambodia
<b>2008 - 2009</b>	<b>FSJ, Workshop Coordinator</b> , Youth Educational Institute Jugendbildungsstaette Juist

## Scholarly visits

<b>2020</b>	<b>Conservation Biogeography Lab</b> , Humboldt University Berlin (Tobias Kuemmerle)
<b>2019 - 2020</b>	<b>Zurell lab</b> , Humboldt University Berlin (Damaris Zurell)
<b>2019</b>	<b>Centre for Biodiversity and Environment Research</b> , University College London (Tim Newbold)

## Academic service

<b>2020 - present</b>	<b>Global Ecology and Biogeography, OIKOS</b> Reviewer
<b>2019</b>	<b>British Ecological Society Annual Meeting</b> Symposium Organiser and Chair
<b>2018 - present</b>	<b>British Ecological Society Quantitative Ecology Group</b> Committee Member
<b>2017 - 2019</b>	<b>QAEco Diversity and Inclusion Group</b> Committee Member
<b>2017</b>	<b>QAEco mentoring scheme</b> Organiser
<b>2015 - 2016</b>	<b>Staff-Student Consultative Committee, University of Freiburg</b> Student Rep

## Journal articles

**Kapitza, S.**, Ha, P. V., Golding, N., Kompas, T., Cadenhead, N. C. R., Bal, P., Wintle, B.A., Assessing biophysical and socio-economic impacts of climate change on regional avian biodiversity, *Scientific Reports* (in press)  
**Kapitza, S.**, Golding, N., Wintle, B. A. A predictive model of fractional land use (under review, [preprint on bioRxiv](#))  
Bal, P., **Kapitza, S.**, Cadenhead, N. C., Kompas, T., Ha, P. V., Wintle, B. A. (in prep, [preprint on arXiv](#))

Zurell, D., König, C., Malchow A. K., **Kapitza, S.**, Fandos, G., Advances and opportunities for using spatially explicit models in conservation and restoration (in prep)

## Selected seminars, conference talks and posters

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2020	<b>A new method to predict fractional land use</b> A Festival of Ecology, British Ecological Society Virtual Annual Meeting
2019	<b>The economy, climate change and biodiversity</b> Applied Geoinformation Science Colloquium, Humboldt University of Berlin Biogeography Colloquium, Humboldt University of Berlin Centre for Biodiversity and Environmental Research, University College London
2018	<b>Integrating drivers of change: an assessment of bio-physical and socio-economic climate change impacts on species habitat</b> Australian Ecological Society Conference, Brisbane British Ecological Society Annual Meeting, Birmingham <b>Accounting for socio-economic impacts in biodiversity modelling</b> British Ecological Society Quantitative Ecology Spatial Interest Group conference, St. Andrews <b>Assessing direct and indirect impacts of climate change on bird habitat</b> Poster, International Statistical Ecology Conference, St. Andrews <b>Comparing the biophysical and economic impacts of climate change on biodiversity</b> Guest seminar, Helmholtz Institute for Zoology and Wildlife Research, Berlin
2017	<b>Accounting for socioeconomic drivers of biodiversity change: A novel integrated assessment framework</b> Seminar, Quantitative & Applied Ecology Group, University of Melbourne

## Awards and scholarships

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2019	<b>David H Ashton Scholarship</b> , University of Melbourne (AUD 2900)
2018	<b>Wiley Award for Best Poster</b> , International Statistical Ecology Conference, St. Andrews <b>Science Abroad Travelling Scholarship</b> , University of Melbourne (AUD 1500) <b>Financial Support for Research or Conference Travel</b> , University of Melbourne (AUD 2000) <b>Drummond Travel Award</b> (AUD 1500)
2017	<b>Australian Research Council Discovery top-up grant</b> (AUD 21,000) <b>Melbourne International Research Scholarship</b> (AUD 120,000)
2015	<b>DAAD PROMOS Scholarship grant</b> (2300 EUR)

## Workshops

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2020	<b>Modelling Impacts of Agricultural Development on Biodiversity and People</b> CBER, University College London
2019	<b>CBRI Grand Challenges</b> University of Melbourne Computational Biology Research Initiative
2018	<b>Spatial Point Pattern Analysis</b> Australian Research Council Centre of Excellence for Mathematical and Statistical Frontiers <b>Combining Different Data Types In a Single Model</b> International Statistical Ecology Conference 2018

## Volunteering

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2020 - present	<b>Start with a Friend e.V.</b> Refugee support
2019	<b>Orygen Youth Health International Student Welfare Project</b> Peer leader

## Memberships

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British Ecological Society, Australian Ecological Society, BUND (Friends of the Earth Germany)

## Referees

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<b>Prof Brendan Wintle</b> MSc and PhD supervisor Director NESP Threatened Species Recovery Hub University of Melbourne and University of Queensland b.wintle@unimelb.edu.au	<b>Prof Damaris Zurell</b> Current employer, mentor Head of Macroecology Lab Universität Potsdam damaris.zurell@uni-potsdam.de
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