Martin Jung | Curriculum Vitae

School of Life sciences, University of Sussex, Brighton, BN1 9RH, UK

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Final year PhD researcher at the University of Sussex (UK), where I investigate how biodiversity is influenced by past land dynamics. Widely interested in (Macro-)Ecology, Conservation Biology and Sustainability Science with regards to global change. Specialist in data science, remote-sensing analysis and interpreting spatial data. Many years of experience in project management and providing quantitative solutions to environmental problems.

Career history

Paid employment

University of Sussex   **Brighton, UK**
Associate doctoral tutor   *January 2017–March 2019*

Assisted in the teaching and marking of biology and geography courses for BSc and MSc students. Led one day intensive workshops in GIS & data analysis for graduate students.

Lund university - Centre for Sustainability studies   **Lund, Sweden**
Research assistant   *February 2015–September 2015*

Worked for the AGROMES project (funded by the Swedish research council) mapping the environmental, economic,and social tradeoffs of European farming systems across scales. Involved the acquisition, manipulation, analysis and visualisation of economic and environmental data. Collaboration with the University of British Columbia and Sussex University

Imperial College London   **London, UK**
External database contractor   *October 2014–August 2015*

Developed, implemented and administrated a spatially explicit relational database (PostgreSQL & PostGIS) for the BIOFRAG project. Wrote parsing scripts and SQL queries for database maintenance.

University of Copenhagen   **Copenhagen, Denmark**
Laboratory assistant   *May 2013–April 2015*

Laboratory and field work as well as statistical analyses in biological pest control (Fruitgrowth, Softpest, INBIOsoil) projects.

gaiac - research institute   **Aachen, Germany**
Research assistant   *September 2012–October 2012*

GIS and statistical analyses around the Virtual Forest project and urban ecology. Conducted plant vegetation surveys on windfall calamity areas.

Solarenergie-Förderverein Deutschland e.V.   **Aachen, Germany**
Part-time database maintainer   *July 2006–May 2013*

Database maintenance and user support of the largest database for solar panel owners in Germany.

Internships & Volunteer activities

Helmholtz-Zentrum für Umweltforschung - UFZ — **Leipzig, Germany**
Internship — *September 2011–October 2011*
GIS analyses for habitat connectivity and restoration.

SAVE wildlife conservation fund — **Wülfrath, Germany**
Volunteer project leader — *May 2011–September 2012*
Responsible for coordinating social media and stake holder interactions in Cameroon and the USA.

University of Marburg — **Bialowieza Forest, Poland**
Volunteer — *Spring 2011 & Summer 2012*
Assistance in ornithological field surveys in temperate forests.

NLWKN — **Langeoog, Germany**
Assistant national park ranger — *July 2008–June 2009*
Ornithological surveys & public relation including giving public tours and seminars.

Academic Qualifications

PhD in Environmental Sciences — **University of Sussex, UK**
in preparation — *September 2015– March 2019*
Specialising in big data, remote sensing & macroecological analyses

MSc in Biology — **University of Copenhagen, Denmark**
12 (A) — *2013–2015*
Specialisation in Macroecology & African land systems. Four months of self-organised fieldwork in Tanzania and Kenya

BSc in Biology — **University of Marburg, Germany**
1.9 (A) — *2009–2012*
Specialising in Conservation ecology. Six months of fieldwork in east Poland.

Professional skills

Languages: Fluent in German & English, basic literacy in Danish.

General: Very good project- and time-management skills. Experienced in giving presentations, working well solo or in teams.

Statistics: Univariate and multivariate statistics. Time series analyses. Good knowledge about applying Bayesian and modern machine learning techniques.

Coding: Proficient in: R, Python, Bash, Javascript, SQL, HTML, CSS, TeX, Learning Julia

Databases: MySQL, PostgreSQL, PostGIS, SQLite, Microsoft Access.

General computer skills: Broad Linux & Microsoft Windows knowledge. Most existing GIS software. Comfortable with big data. Cloud computing knowledge (Google Cloud, Google Earth Engine, AWS). Excellent command of Microsoft Office.

Publications

Peer reviewed

[1] **Jung, M.**, Rowhani, P., Newbold, T., Bentley, L., Purvis, A. and Scharlemann, J. P.W. (2018) "Local species assemblages are influenced more by past than current dissimilarities in photosynthetic activity" *Ecography*, doi:10.1111/ecog.04031

[2] Norfolk, O., **Jung, M.**, Platts, P. J., Malaki, P., Odeny, D., and Marchant, R. (2017) "Birds in the matrix: the role of agriculture in avian conservation in the Taita Hills, Kenya." *African Journal of Ecology*, doi:10.1111/aje.12383

[3] **Jung, M.**, Hill, S. L. L., Platts, P. J., Marchant, R., Siebert, S., Fournier, A., Munyekenye, F. B., Purvis, A., Burgess, N. D. and Newbold, T. (2017) "Local factors mediate the response of biodiversity to land use on two African mountains." *Animal Conservation*, doi:10.1111/acv.12327

[4] Hudson, L., [...], **Jung, M.** *et al.* (2017) "The database of the PREDICTS (Projecting Responses of Ecological Diversity In Changing Terrestrial Systems) project." *Ecology and Evolution*, 7(1), 145-188. doi:10.1002/ece3.2579

[5] Newbold, T. [...], **Jung, M.** *et al.* (2016) "Has land use pushed terrestrial biodiversity beyond the planetary boundary? A global assessment." *Science*, 353(6296):288-291 doi:10.1126/science.aaf2201

[6] Martin,P.A., **Jung, M.**, Brearley, F.Q., Ribbons, R.R., Lines, E.R. and Jacob, A.L. (2016) "Can we set a global threshold age to define mature forests?" *PeerJ*, e1595 doi:10.7717/peerj.1595

[7] **Jung, M.** (2015) "LecoS - A python plugin for automated landscape ecology analysis." *Ecological Informatics* 31: 18-21 doi:10.1016/j.ecoinf.2015.11.006

[8] Hudson, L., [...], **Jung, M.** [...] *et al.* (2014) "The PREDICTS database: a global database of how local terrestrial biodiversity responds to human impacts" *Ecology and Evolution*; 4(24):4701-4735 doi:10.1002/ece3.1303

Submitted or in review

Jung, M., Rowhani,P. and Scharlemann,J. (in review) "The impact of abrupt land changes on local biodiversity globally", *Nature Communications*

Other

Jung, M. (2014) "QSDM Species distribution modelling support for the QGIS Processing toolbox", Download link

Jung, M. (2012) "The U.S.-Investors and African palm oil, Report for the SAVE Wildlife Conservation Fund - Download link

Presentations

Talks

[1] **Jung, M.**, Rowhani, P. and Scharlemann, J. (2018) "Using remote sensing to assess biotic lag in species assemblages globally", *British Ecological Society Annual Meeting*, December 17- 19, Birmingham, UK.

[2] **Jung, M.** (2018) "Linking local biodiversity change and landscape-wide land changes", *Macroecology SIG: Annual Meeting 2018 - British Ecological Society*, July 10-11, St.Andrews, UK.

[3] **Jung, M.** (2017) "The lasting impact of past major disturbances on biodiversity", *Macroecology SIG: Annual Meeting 2017 - British Ecological Society*, July 5-7, London, UK.

[4] **Jung, M.** (2016) "The local and African-wide distinctiveness of agroforestry for biodiversity", *Evolution, behaviour and environment seminar series*, October 27, Sussex, UK.

[5] **Jung, M.** (2016) "Influence of land dynamics on biodiversity", *Evolution, behaviour and environment seminar series*, April 30, Sussex, UK.

[6] **Jung, M.**, Newbold, T. and Burgess N.D. (2014) "African species' response to land-use change. Assessing the match between an Africa-wide model and fine-scale field data", *7th Early Career Research meeting of the Tropical Ecology Group - British Ecological Society*, August 14- 15, York, UK.

Posters

[1] **Jung, M.**, Rowhani, P. and Scharlemann, J. (2017) "Abrupt land change events alter biodiversity", *University of Sussex - Annual research symposium*, December 14- 15, Sussex, UK. **Best poster prize**

[2] **Jung, M.**, Rowhani, P. and Scharlemann, J. (2016) "Lasting influences of past land-surface conditions on species assemblages", *British Ecological Society Annual Meeting*, December 11- 14, Liverpool, UK. **Highly commended** Download link

[3] **Jung, M.**, Burgess, N.D. and Newbold, T. (2016) "A comparison of broad-scale model estimates with independent bird data from East-Africa", *Student Conference on Conservation Science*, March 22-24, Cambridge, UK. Download link

[4] **Jung, M.**, Newbold, T. and Burgess, N.D. (2014) "African species' response to land-use change. Assessing the match between an Africa-wide model and fine-scale field data", *7th Early Career Research meeting of the Tropical Ecology Group - British Ecological Society*, August 14- 15, York, UK. Download link

[5] Linder J.M., Gorschlüter L., Altherr, S., Waltert, M., **Jung, M.** *(not on abstract)*, Chapple, A. and Astaras C. (2012) "The anatomy of an oil palm plantation and why African primate diversity is in trouble", *2012 Annual Meeting of the American Association of Physical Anthropologists*, April 11- 14, Portland, Oregon.

Teaching experience

2018 - QGIS workshop for postgraduates - University of Sussex, UK

2018 - Introduction to Geographical Information systems - University of Sussex, UK

2017 - Tutor on R course for PhD, MSc and BSc students - R4ALL, UK

2016-19 - Introduction to Ecology and Conservation - University of Sussex, UK

2015 - Tutoring on Workshop "Landscape Ecology analysis in QGIS" - University of Lund, Sweden

2014 - Workshop "Vegetation from space and from the ground" - African Insect Science for Food and Health (ICIPE), Kenya

2013 - Workshop "Landscape Ecology analysis in QGIS" - University of Lund, Sweden

Professional development

2017 - Two weeks summer school on synthesising and modelling biodiversity data - iDiv, Germany

2016 - Multiple training courses on academic writing, teaching and entrepreneurial thinking and policy impact - University of Sussex Doctoral school, UK

Grants and awards

2018 - Doctoral festival - runner up research image prize in the category science. Volume 120 £ (140 €)

2015 - University of Sussex Researcher led initiative fund for setting up a quantitative analysis group - Volume: 1000 £ (1416 €)

2015-2019 - University of Sussex school of life sciences PhD funding grant - Volume: 14.057 £ (19910 €) annually

2014 - DANIDA Travel Grant (No. A26811) in support of conducting fieldwork in Kenya and Tanzania - Volume: 13000 DKK (1700 €)

2013-2014 - Monthly scholarship from the Danish ministry of Higher Education and Science - Volume: 5753 DKK (770 €) monthly

2013 - Grant to extent the functionality of my QGIS plugin LecoS from the Universidade de Évora, Departamento de Biologia, Unidade de Biologia da Conservação - Volume: 250 €

References

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