Martin Jung Curriculum vitae

CONTACT INFORMATION Martin Jung School of Life sciences University of Sussex BN1 9RH Brighton

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#### QUALIFICATIONS AND INTERESTS

Macroecology, Conservation biology, Remote-sensing, Univariate and multivariate statistics, 'Big data', Ornithology, Entomology, Applied nature conservation, Sustainability research, Agent-based and species distribution modeling, Project management, Programming and Database design, Web-Design, R, Python, PHP, GIS Solutions, ArcGis, Quantum Gis, GRASS, Postgres and PostGIS, IT-Administration

#### **EDUCATION**

#### University of Sussex, Brighton, UK

PhD., Environmental science, September 2015 - present

- Thesis Topic: Temporal dynamics of land systems and their links to BIODIVERSITY
- Advisors: Dr. Jorn Scharlemann and Dr. Pedram Rowhani

#### University of Copenhagen, Copenhagen, Denmark

MSc., Biology, graduated April 2015

- Thesis Topic: Assessing the match between broad-scale African-wide biodiversity models and independent field data
- Adviser: Professor Neil D. Burgess
- Other Activities: Social media Press Team at IARU 2014 conference, CMEC Journal Clubs. Mentor for new Students

#### University of Marburg, Marburg, Germany

BSc., Biology, graduated September 2012

Grade: 1.9 (A - Very good)

- Thesis Topic: INFLUENCE OF FOREST FRAGMENTATION ON TEMPERATE PLANT-POLLINATOR NETWORKS (Available on request)
- Adviser: Professor Dr. Nina Farwig
- Other Activities: Elected member of the biology student council from 2010-2012.

### PROFESSIONAL EXPERIENCE

#### Lund University - Centre for Sustainability Studies,

Lund, Sweden

#### Research assistant

#### February 2015 to September 2015

Assisting within the AGROMES project by mapping the environmental, economic, and social tradeoffs of European farming systems across scales. Involves the acquisition, manipulation, analysis and visualization of multiple data sources. Conducted in collaboration with the University of British Columbia and Sussex University.

## Imperial College London - Forest Ecology and Conservation Research Group, London, UK

#### External contractor

#### October 2014 to present

 Assisting in development and administration of a spatially enabled Postgres database for the BIOFRAG research project. Writing parsing scripts and sql queries to maintain the database.

### University of Copenhagen - Department of Plant and Environmental Science, Copenhagen, Denmark

#### Laboratory assistant

#### May 2013 to April 2015

- Assisting Prof. Lene Sigsgaard within the Fruitgrowth, Softpest and EU-financed INBIOsoil project.
- Tasks include the rearing of insects, field trials, laboratory work, insect determinations and GIS and statistical analysis

### gaiac - Research institute for ecosystem analysis and assessment, Aachen, Germany

#### Research assistant

#### October 2012 to January 2013

- Responsible for GIS and statistical Analyses around the **Virtual Forest project** and other projects related to the field of urban ecology.
- Conducted basic Vegetation surveys on windfall areas and parametrized environmental factors with GIS to conduct multivariate Analysis.

#### **UFZ - Department for Conservation Biology**,

Leipzig, Germany

#### Internship

#### September 2011 to October 2011

Participated in a scientific project under the supervision of Dr. Klaus Klenke.
 Goal was to assess network linkages between species habitats for biodiversity conservation and restoration. My responsibilities were data preparations and Connectivity analyses in ArcGis and other software.

#### University of Marburg,

Białowieża, Poland

#### Volunteer and Research assistant

#### July 2011 to August 2011 and April 2012 - July 2012

- I volunteered in a PhD-Project on ecosystem services and mutualistic interactions in the Białowieża national park in Poland. Assisted in Bird observations and monitoring of seed-dispersal within the national park.
- In 2012 I wrote my Bachelor thesis about plant-pollinator interactions in Białowieża and conducted several months of sampling flower-visiting insects from April to June. Gained experience in insect handling, determination and scientific data analyses.

#### SAVE Wildlife Conservation Fund.

Wülfrath, Germany

#### Volunteer Project Leader

#### Mai 2011 to September 2012

- Responsible for managing the SAVE the Forests campaign in Cameroon. During my time at SAVE our campaign received strong media coverage and several reports and articles were published subsequently.
- Main tasks included assistance in the Palmoil campaign as well as scientific consulting and coordination with different stakeholders involved in the the campaign.
   A detailed report about the situation in South-West Cameroon was written and I assisted with media relations and social network coverage.

Lower Saxon State Department for Waterway, Coastal and Nature Conservation, Langeoog, Germany

#### Community Service and assistant park ranger

July 2008 to June 2009

- I assisted the national park ranger on the German island Langeoog throughout the year. Originally doing community service as demanded by the German government. I was offered a short-term contract at the end.
- Common tasks included counts of migrating birds, breeding bird assessments, bird ringing assistance, general coastal maintaining work and public relation such as guided birding tours or presentations.

#### Solarenergie-Förderverein Deutschland e.V.,

Aachen, Germany

#### Database maintainer

July 2006 to May 2013

- The SFV is registered association promoting the use of privately Solar-power plants in Germany and demands a total change to 100 percent renewable energy supply as soon as possible in order to fight climate change.
- My task was to manage the database and assist in user support of the biggest Photovoltaic-User database in Germany.

### **J**OURNAL **PUBLICATIONS**

- (PEER-REVIEWED) [1] Martin Jung (2016) "LecoS A python plugin for automated landscape ecology analysis." Ecological Informatics 31: 18-21 doi:10.1016/j.ecoinf.2015.11.006
  - [2] Lawrence Hudson, Tim Newbold, [...], Martin Jung, [...] 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
  - [3] Phil A. Martin, Martin Jung, Francis Q. Brearley, Relena R. Ribbons, Emily R. Lines and Aerin L. Jacob (accepted) "Can we set a global threshold age to define mature forests?" PeerJ doi:10.7287/peerj.preprints.1474v1
  - [4] Martin Jung, Samantha Hill, Philip Platts, Rob Marchant, Steffen Siebert, Anne Fournier, Fred B. Munyekenye, Andy Purvis, Neil D. Burgess and Tim Newbold (under review) "Mismatch between broad-scale biodiversity model predictions and independent bird data on two African mountains Biodiversity and Conservation" Biodiversity and Conservation
  - [5] Olivia Norfolk, Martin Jung, Philip Platts, Phillista Malaki, Dickens Odeny and Rob Marchant (under review) "Birds in the matrix: the role of agriculture in avian conservation in Taita Hills, Kenya" Biotropica

CONFERENCE TALK [6] Martin Jung, Tim Newbold and Neil D. Burgess (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.

#### CONFERENCE **POSTERS**

- [7] Martin Jung, Tim Newbold and Neil D. Burgess (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.
- [8] Joshua M. Linder, Lars Gorschlüter, Sandra Altherr, Matthias Waltert, Martin Jung (not on abstract), Abigail Chapple, and Christos Astaras (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.

### OTHER PUBLICATIONS

- [9] Martin Jung (2014), QSDM Species distribution modelling support for the QGIS Processing toolbox, http://plugins.ggis.org/plugins/QSDM/
- [10] Martin Jung (2012), The U.S.-Investors and African palm oil, Report for the SAVE Wildlife Conservation Fund - Download

### TEACHING EXPERIENCE

### Workshop "Landscape Ecology analysis in QGIS" - University of Lund March 2015

 Lars Pettersson from the University of Lund reinvited me to give a one-day workshop on landscape ecology analysis with QGIS in which around 9 people participated.

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

 Invited assistant demonstrator in a practical workshop aimed to teach the basics of measuring Vegetation Indices both from Satellite data and ground derived Leaf-Area-Indices with QGIS to African Students. Workshop was leaded by Dr. Marion Pfeifer and Dr. Phil Platts. A number of 15 people from various African nations participated in the workshop.

### Workshop "Landscape Ecology analysis in QGIS" - University of Lund May 2013

I was invited by Dr. Klaus Birkhofer from the University of Lund to give a
practical workshop in landscape ecology analysis with QGIS for the Biodiversity and Conservation Science Group in which around 13 people participated.

#### **GRANTS**

- 2015 University of Sussex Researcher led initiative fund for setting up a quantiative analysis group Volume: 1000 £(1416 €)
- 2015-2019 University of Sussex school of lifescience PhD funding award Volume: 14.057 £annually (19910 €)
- 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 monthly (770 €)
- 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 €