

# Martin Jung | Curriculum Vitae

BNR Programm, IIASA, Laxenburg, A-2361, Austria

[www.martinjung.eu](http://www.martinjung.eu) • [jungmartin](https://www.linkedin.com/in/jungmartin) • [Martin-Jung](https://www.instagram.com/martin-jung)

Environmental scientist with broad interests in (Macro-)Ecology, Conservation Biology and Sustainability Science with regards to global change. Specialises on biodiversity indicators, models and scenarios, remote sensing and biodiversity nexus topics, and applied conservation biology. Many years of experience in project management and providing quantitative solutions to environmental problems.

## Career history

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### Paid employment

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- International Institute for Applied Systems Analysis (IIASA)** **Laxenburg, Austria**  
*Senior Research scholar* *January 2024–present*

Working on a range of projects in the scope of environmental change, biodiversity nexus issues and conservation planning. Experienced in project management, supervision and funding acquisition. Leading research that integrates best available knowledge to support informed decision making.
- International Institute for Applied Systems Analysis (IIASA)** **Laxenburg, Austria**  
*Research scholar* *March 2021–December 2023*

Research on the nexus of land-use, climate and biodiversity. Project management, funding acquisition and technical development using optimisation, machine learning and simulation based approaches.
- International Institute for Applied Systems Analysis (IIASA)** **Laxenburg, Austria**  
*Postdoctoral Research scholar* *April 2019–February 2021*

Developing new global integrated biodiversity, carbon and ecosystem services maps and models using global data aggregation and optimisation routines
- 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.
  
- **gaia - 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.

## Education

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- **PhD in Environmental Sciences** **University of Sussex, UK**  
*Pass without corrections* *September 2015– March 2019*  
 Specialising in big data, remote sensing & statistical 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

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

**General:** Very good project- and time-management skills. Experienced presentation and talking skills, working well solo or in teams.

**Statistics:** Univariate and multivariate statistics. Time series analyses. Linear optimization. Agent-based simulations. Good knowledge about applying Bayesian and modern machine and deep learning techniques.

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

**Databases:** Geoserver, 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. Server and network administration.

## Publications

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Publications I have led or been involved in have been cited over **3600** times (h-index: **18**), including in policy documents and assessments, such as *IPBES* and the *GBF*. A overview of policy mentions of my work can be found [here](#).

### Peer reviewed

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- [1] Hao, X., **Jung, M.**, Zhang, Y., Yan, C. (2024) "Emergent properties and robustness of species-habitat networks for global terrestrial vertebrates" *Global Ecology and Biogeography*, doi:10.1111/geb.13912
- [2] Cazalis, V, Di Marco, M., Zizka, A., Butchart, S.H.M, González-Suárez, M., Böhm, M., Bachman, S.P., Hoffmann, M., Rosati, I., De Leo, F., **Jung, M.**, Benítez-Lopez, A., Clausnitzer, V., Cardoso, P., Brooks, T.M., Mancini, G., Lucas, P.M., Young, B.E., Akcakaya, R.E, Schipper, A.M., Hilton-Taylor, C., Pacifici, M., Meyer, C. & Santini, L. (2024) "Accelerating and standardising IUCN Red List assessments with sRedList" *Biological Conservation*, doi:10.1016/j.biocon.2024.110761
- [3] Escobar, N., Seber, G., Skalsky, R., **Jung, M.**, Wögerer, M & Malina, R. (2024) "Spatially-explicit land use change emissions and carbon payback times of biofuels under the Carbon Offsetting and Reduction Scheme for International Aviation (CORSA)" *Science of the Total Environment*, 948: 174635 doi:10.1016/j.scitotenv.2024.174635
- [4] **Jung, M.**, Alagador, D.A., Chapman, M., Hermoso, V., Kujala, H., O'Connor, L., Schinegger, S., Verburg, P. & Visconti, P (2024) "An Assessment of the State of Conservation Planning in Europe." Special issue for *Proceedings of the Royal Society b* doi:10.1098/rstb.2023.0015, Preprint: doi:10.31219/osf.io/8x2ug
- [5] Folberth, C., Wood, S., Wironen, M., **Jung, M.**, Boucher, T., Bossio, D. & Obersteiner M (2024) "Exploring the potential for nitrogen fertilizer use mitigation with bundles of management interventions" *Environmental Research Letters*, doi:10.1088/1748-9326/ad31d8
- [6] Hackländer, J, Parente, L, Ho, Y.F., Hengl, T, de Bruin, S., Herold, M., **Jung, M.**, Consoli, D., Duveiller, G., Weynants, M., Wheeler, I., Tian, X., de Beurs, K. (2024) "Land potential assessment using spatiotemporal Machine Learning: time-series 2000–2021 analysis of FAPAR at 250 m spatial resolution" *PeerJ*, 12:e16972, doi:10.7717/peerj.16972

- [7] **Jung, M.**, Boucher, T., Wood, S.A., Folberth, C., Wironen, M., Thornton, P., Bossio, D. and Obersteiner M. (2024) "A global clustering of terrestrial food production systems" *PLoS ONE*, 19(2): e0296846, doi:10.1371/journal.pone.0296846
- [8] Henry, E.G., Santini, L., Butchart, S., Gonzalez-Suarez, M., Lucas, P.M., Benitez-Lopez, A., Mancini, G., **Jung, M.**, Cardoso, P., Zizka, A., Meyer, C., Akcakaya, H.C., Berryman, A., Cazalis, V. & Di Marco M. (2024) "Modelling the probability of meeting IUCN Red List criteria to support reassessments." *Global Change Biology* doi:10.1111/gcb.17119
- [9] **Jung, M.**, Lesiv, M., Warren-Thomas, E., Schepaschenko, D., See, L., Fritz, S. (2023) "The importance of capturing management in forest restoration targets" *Nature Sustainability* doi:10.1038/s41893-023-01192-8
- [10] Victor, C, Santini, L, Lucas, P, Gonzalez, M., Hoffmann, M., Benítez-López, A., Pacifici, M., Schipper, A., Bohm, M., Zizka, A., Clausnitzer, V, Meyer, C., **Jung, M.**, Butchart, S., Cardoso, P, Mancini, G., Akcakaya, R., Young, B, Patoine, G. and Di Marco, M. (2023) "Prioritizing the reassessment of Data Deficient species in the Red List" *Conservation Biology* doi:10.1111/cobi.14139
- [11] Buchadas, A., **Jung, M.**, Fernandez-Llamazares, A., Garnett, S., Nanni, A.S., Ribeiro, N., Meyfroidt, T. & Kuemmerle, T. (2023) "Tropical dry woodland loss occurs disproportionately in areas of highest conservation value" *Global Change Biology* doi:10.1111/gcb.16832
- [12] **Jung, M.** (2023) "An integrated species distribution modelling framework for heterogeneous biodiversity" *Ecological Informatics* ,102127, doi:10.1016/j.ecoinf.2023.102127
- [13] **Jung, M.** (2022) "Predictability and transferability of local biodiversity environment relationships" *PeerJ* 10:e13872 doi:10.7717/peerj.13872
- [14] Chrysafi, A. [...], **Jung, M.** et al. (2022) "Quantifying Earth system interactions for sustainable food production: an expert elicitation" *Nature Sustainability* doi:10.1038/s41893-022-00940-6
- [15] **Jung, M.**, Lewis, M., Lesiv, M., Arnell, A., Fritz, S. & Visconti, P. (2022) "The global exposure of species ranges and protected areas to forest management" *Diversity and Distribution* doi:10.1111/ddi.13582
- [16] Lesiv M., , [...], **Jung M.**, et al. (2022). "Global forest management data for 2015 at a 100 m resolution." *Scientific Data* 9:199. doi:10.1038/s41597-022-01332-3.
- [17] Fritz, S., [...], **Jung, M.**, et al. (2022) "A Continental Assessment of the Drivers of Tropical Deforestation with a Focus on Protected Areas" *Frontiers in Conservation Science* 3:1–12 doi:10.3389/fcosc.2022.830248
- [18] Henry, R.C., Arneth, A., **Jung, M.**, Rabin, S. S., Rounsevell M.D., Warren, F. and Alexander, P. (2022) "Global and regional health and food security in a Half Earth world." *Nature Sustainability* doi:10.1038/s41893-021-00844-x
- [19] **Jung, M.**, [...], Visconti, P., (2021). "Areas of global importance for terrestrial biodiversity, carbon, and water." *Nature Ecology & Evolution*, 5:11, 1499-1509 doi:10.1101/2020.04.16.021444
- [20] Santini, L., Antao, L., **Jung, M.**, Benítez-López, A., Rapacciuolo, G., Di Marco, M., Jones, F., Haghkerdar, J.M., and González-Suárez M. (2021). "Macroecology and Conservation Biology: links, challenges, and opportunities" *Frontiers in Biogeography* doi:10.21425/F5FBG53025

- [21] Marques, A., Robuchon, M., Hellweg, S., [...], **Jung, M.**, *et al.* (2021) "A research perspective towards a more complete biodiversity footprint: a report from the World Biodiversity Forum." *Int J Life Cycle Assess.* doi:10.1007/s11367-020-01846-1
- [22] **Jung, M.**, Scharlemann, J. P. W. and Rowhani, P. (2020). "Landscape-wide changes in land use and land cover correlate with, but rarely explain local biodiversity change" *Landscape Ecology* 2, doi:10.1007/s10980-020-01109-2
- [23] Leclère, D., [...] **Jung, M.**, *et al.* (2020) "Bending the curve of terrestrial biodiversity needs an integrated strategy." *Nature.* 585, 551-556 doi:10.1038/s41586-020-2705-y
- [24] **Jung, M.**, Raj Dahal, P., Butchart, S. H. M., Donald, P.F., De Lamo, X., Lesiv, M., Kapos, V., Rondinini, C. and Visconti, P. (2020). "A global map of terrestrial habitat types" *Nature - Scientific data* 7(1),256 doi:10.1038/s41597-020-00599-8
- [25] **Jung, M.**, Rowhani, P., and Scharlemann, J. P. W. (2019). "Impacts of past abrupt land change on local biodiversity globally." *Nature Communications*, 10(1), 5474. doi:10.1038/s41467-019-13452-3
- [26] **Jung, M.**, Rowhani, P., Newbold, T., Bentley, L., Purvis, A. and Scharlemann, J. P.W. (2019) "Local species assemblages are influenced more by past than current dissimilarities in photosynthetic activity" *Ecography*, 42(4), 670–682. doi:10.1111/ecog.04031
- [27] Kehoe, L., [...], **Jung, M.**, *et al.* (2019) "Make EU trade with Brazil sustainable" *Science*, 364(6438):341 doi:10.1126/science.aaw8276
- [28] 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
- [29] **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
- [30] 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
- [31] 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
- [32] 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
- [33] **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
- [34] 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.....

- [35] **Jung, M.** "Mapping current and future European potential vegetation to support restoration planning" *Regional Environmental Change* doi:10.31223/X59H71
- [36] Hanson, J., et al. (submitted) "Conserved areas must be both strategically sited and effectively managed to conserve biodiversity" *Nature Ecology & Evolution*
- [37] Jonas, L., et al. (submitted) "Interactions between climate warming and management actions determining bird community change in protected areas" *Biological Conservation*
- [38] Chapman, M., **Jung, M.**, Leclère, D., Boettiger, C., Augustynczyk, A. L. D., Gusti, M., Ringwald, L. et al. (submitted) "Meeting European Conservation and Restoration Targets Under Future Land-use Demands." *Nature Ecology & Evolution*. Preprint: doi:10.31219/osf.io/ynqfx.
- [39] Gould, E., [...], **Jung, M.**, [...] (submitted) "Same data, different analysts: variation in effect sizes due to analytical decisions in ecology and evolutionary biology." *BMC Biology* Preprint doi:10.32942/X2GG62
- [40] Gaget, E, **Jung, M.**, Lewis, M, Hofhansl, F, Graham, L, Warren-Thomas, E, Visconti, P (in revision) "Best practices in biodiversity modelling in the context of land-use, a systematic review" *Ecography*
- [41] Chen S, Wang S, Lu, N, **Jung, M.**, Tian, H, Wu1, X & Fu, B (in review) "Identifying forest restoration priorities that benefit biodiversity and climate targets in China" *Sciences Advances*
- [42] Gao, X., Reich, P. B., Vincent, J., Fagan M., Chazdon, R., Fritz S., Schepaschenko D., Potts, M., Hansen, M., **Jung, M.**, Brancalion, P., Uriarte, M., Keenan, T., Crowther, T., Dubayah, R., Lesiv, M., Liang, S. & Wang D. (in review) "The Importance of Distinguishing Between Natural and Managed Tree Cover Gains in the Moist Tropics" *Nature Communications*
- [43] D'Álessio, A., Fornarini, C., Fernandez, N., Namasivayam, A., Visconti, P., Dertien, J., Hällfors, M., **Jung, M.**, Moreira, F., O'Connor, L., Osti, M., Schnepf, M., Quintero-Uribe, L., Marei Viti, M., Pereira, H., Verburg, P., & Rondinini, C. (in review) "Narratives for positive nature futures in Europe" *People and Nature*.

## Policy briefs, Reports and grey literature.....

Visconti, P., **Jung, M.**, Leclère, D., Ringwald, L., Gusti, M., Balkovic, J., Ondo, I., Maney, C., Harrison, M., Hill, S., Lessa Derci Augustynczyk, A., Di Fulvio, F., Deppermann, A., Kesting, M., Witzke, P., Havlik, P. (2024). BIOCLIMA: Assessing Land use, Climate and Biodiversity impacts of land-based climate mitigation and biodiversity policies in the EU (1.0). IIASA. doi:10.5281/zenodo.13132423

Spencer D, Marques A, Veerkamp C, van der Marel M, Verburg P, Namasivayam AS, Di Marco M, **Jung M.**, Kujala H, O'Connor L, Visconti P, Schipper A (2024) Spatial opportunities and constraints for green infrastructure network design. ARPHA Preprints. doi:10.3897/arphapreprints.e123365

Kozicka, M., Havlík, P., Kahil, T., Kraxner, F., Visconti, P., Frank, S., Franklin, P., Fischer, G., Nilsson, S., Tang, T., Augustynczyk, A.L.D., Balkovič, J., Beher, J., Boere, E., Cornig, S., Folbert, C., Hofhansl, F., **Jung, M.**, Krasovskiy, A., Leclère, D., and Shchepashchenko D. "Chapter 03. Food security, Ecosystems, and Biodiversity", edited by Lutz, W., & Pachauri, S. (2023). *Systems Analysis for Sustainable Wellbeing. 50 years of IIASA research, 40 years after the*

Brundtland Commission, contributing to the post-2030 Global Agenda. International Institute for Applied Systems Analysis (IIASA). doi:10.5281/zenodo.8214208

Kapos, V, Telhado, C. , Tshwene-Mauchaza, B., Mills, J., L., **Jung, M.**, Lewis, M., Visconti, P., Iribarrem, A., Ribeiro Lacerda, E., Ribeiro Mortara, S., Silva de Oliveira, L.G., Souza Bezerra Rocha, D., Toledo Capellao, R., Strassburg, B., Miles, L. (2022). Strengthening Synergies: Climate change mitigation benefits from achieving global biodiversity targets. UNEP-WCMC, Cambridge. [URL](#)

Miles, L., Visconti, P., Strassburg, B., **Jung, M.**, Lewis, M., Iribarrem, A., Ribeiro Lacerda, E., Ribeiro Mortara, S., Silva de Oliveira, L.G., Souza Bezerra Rocha, D., Toledo Capellao, R., Mills, J., Telhado, C., Tshwene-Mauchaza, B., Kapos, V. (2021). Methods for estimating potential greenhouse gas emissions reductions from achieving global biodiversity targets. UNEP-WCMC, Cambridge [Report to UK DEFRA](#).

Bossio D., Obersteiner M., Wironen M., **Jung M.**, Wood S., Folberth C., Boucher T., Alleway H., Simons R., Bucien K., Dowell L., Cleary D., Jones., R. (2021) "Foodscapes: Toward Food System Transition", The Nature Conservancy, International Institute for Applied Systems Analysis, and SYTEMIQ, ISBN: 978-0-578-31122-7 [Download](#)

De Lamo, X., **Jung, M.**, Visconti, P., Schmidt-Traub, G., Miles, L. and Kapos, V. (2020) "Strengthening synergies: how action to achieve post-2020 global biodiversity conservation targets can contribute to mitigating climate change" UNEP-WCMC, Cambridge, UK

Waldron, A., [...], **Jung, M.**, *et al.* (2020) Protecting 30% of the planet for nature: costs, benefits and economic implications *Working paper for the post-2020 Global Biodiversity Framework* [Download](#)

**Jung, M.**, Visconti, P., De Lamo, X., Tallowin, O. and Mark, J. (2020) How we save the World - Protection Priorities *National Geographic Magazine*, Issue 4 - Earth Day 50th Anniversary special issue - [Online](#)

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

## Presentations

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### Talks

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- [1] Jonas, L., Gaget, E., **Jung, M.** & Bromer, J. (2024) "The potential of conservation measures to facilitate waterbird responses to climate warming", *Bird Numbers 2025: Synergies in monitoring for conservation*, March 31 2025, Riga, Latvia.
- [2] **Jung, M** (2024) "Actual and potential habitat and vegetation type mapping to support conservation science" *Open Earth Monitor - Global workshop 2024*, Laxenburg, Austria
- [3] O'Connor, L., **Jung, M.**, Visconti, P. (2024) "Priorities for expanding and strengthening Europe's protected area network" *ECCB 2024*, Bologna, Italy
- [4] Visconti, P., **Jung, M.**, Fernandez, N., Pereira, H., Beher, J., Osti, M., Fernandez, M. (2024) "Building a resilient and coherent Trans-European Nature Network" *ECCB 2024*, Bologna, Italy



- [5] Spencer, D, Marques, A., Veerkamp, C., van der Marel, M., Verburg, P., Sarita Namasivayam, A., Di Marco, M., **Jung, M.**, Kujala, H., O'Connor, L., Visconti, P., Schipper, A. (2024) "Opportunity cost estimates for spatial conservation prioritisation across Europe" *ECCB 2024*, Bologna, Italy
- [6] **Jung, M.** (2024) "Towards a reporting standard for systematic conservation planning studies" *ECCB 2024*, also **Session Organizer** "Designing a future Trans-European Nature Network (TEN-N) for a nature-positive Europe". *ECCB 2024*, Bologna, Italy
- [7] Jonas, L., Gaget, E.; **Jung, M.**, Brommer, J.E. (2024) "Conservation measures facilitate Waterbird Responses to Climate Warming" *ECCB 2024*, Bologna, Italy
- [8] **Jung, M.** (2023) "A systematic review of the state of European conservation planning", Talk and **Session Organizer** at the *GFOE 2023*, Leipzig, Germany
- [9] Hanson, J.O., Delsen, D.M., Binley, A., Allan, J., **Jung, M.**, Visconti, P., Hermoso, V., Schuster, R., Chapman, M. & Bennett, J.R. (2023) "Optimally managing threats to biodiversity across large scales" *beepeg2023*, June 11 - June 14 2023
- [10] **Jung, M.** (2023) "NaturaConnect: Building a coherent Trans-European Nature Network of conserved areas for Nature and People", Keynote speaker and panelist at the Science-Policy Forum of *BioDiversa+*
- [11] Chapman, M., **Jung, M.**, Boettiger, C., Brashares, J. and Visconti, P. (2023) "The impact of burden sharing on the efficacy of area-based conservation targets" *ESA 2023*
- [12] **Jung, M.**, Alagador, D., Chapman, M., Kujala, H., O'Connor, L., Schinegger, R., Verburg, P., Visconti, P. (2022) "Planning where and how to best conserve and restore European biodiversity" *BES 2022*
- [13] **Jung, M.** (2022) "Integrated modelling and planning for restoring European landscapes". Invited speaker to the 2022 BIOCHANGE symposium in Aarhus.
- [14] Fernandez, N., Visconti, P., **Jung, M.**, Pereira, H. (2022) "NaturaConnect - Mobilizing stakeholders and biodiversity data to design the Trans-European Nature Network." at *ECCB 2022*, Prague
- [15] **Jung, M.**, Chapman, M, Lewis, M. and Visconti, P, (2022) "European conservation and restoration options under future land-use scenarios" **Session organizer and contributed talk to symposium 'Planning where and how to best conserve and restore biodiversity'** at *ECCB 2022*, Prague.
- [16] Chapman, M., **Jung, M.**, Leclere, D. and Visconti, P. (2022) "Assessing EU policies for nature and climate: the BIOCLIMA project" *World Biodiversity Forum 2022*, Davos
- [17] Henry, R.C., Alexander, P., Arneth, A., Warren, F., Rounsevell, M.D., **Jung, M.** and Rabin, S. S. (2022) "Global and regional health and food security in a Half Earth world." *World Biodiversity Forum 2022*, Davos
- [18] **Jung, M.** "Integration as guiding principle in conservation planning and ecological modelling" (2022) *Invited research seminar at the University of Vienna - CVL*
- [19] **Jung, M.** "Areas of Global Importance for Biodiversity, Carbon and Water", (2022) *Invited speaker to IIASA CDAT seminar series*



- [20] **Jung, M.** "Biodiversitäts und Naturschutz forschung am IIASA" Keynote speaker at the *Laxenburg Klimatag*. [LINK TO NEWS ANNOUNCEMENT](#)
- [21] **Jung, M.** and Visconti P. (2020) "Global Areas Of Importance For Species Conservation And Carbon Storage", *World Biodiversity Forum*, February 23-28, Davos, Switzerland.
- [22] **Jung, M.** and Visconti P. (2019) "Identifying global terrestrial areas of biodiversity significance", *UNEP-WCMC – Gaining consensus on biodiversity assessments workshop*, May 20-24, Cambridge, UK.
- [23] **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.
- [24] **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.
- [25] **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.
- [26] **Jung, M.** (2016) "The local and African-wide distinctiveness of agroforestry for biodiversity", *Evolution, behaviour and environment seminar series*, October 27, Sussex, UK.
- [27] **Jung, M.** (2016) "Influence of land dynamics on biodiversity", *Evolution, behaviour and environment seminar series*, April 30, Sussex, UK.
- [28] **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.....

- [29] **Jung, M.**, Beier, J., Beher, J., Huchler, K., Hanger-Kopp, S. (2024) "Integrated Conservation and Restoration Planning within a Central-European Cross-border Region" *ECCB 2024*, Bologna, Italy [Download](#)
- [30] Hesselbarth, **Jung, M.** & Visconti, P. (2023) "Evaluating the impact of European forest management strategies on key forest taxa using integrated species distribution models", *GFOE 2023*, September 11-15, Leipzig, Germany.
- [31] Jonas, L., Gaget, E., **Jung, M.** & Bromer, J. (2023) "Which conservation measures are most beneficial to bird response to climate warming?", *Oikos Finland 2023*, February 14-15, Helsinki, Finland.
- [32] Visconti, P., **Jung, M.**, Beher, J., Osti, M., Fernandez, N., Pereira, H., & Fernandez, M. (2022). "Designing a resilient and coherent Trans-European conservation Network for Nature and People". *Systems Analysis for Reducing Footprints and Enhancing Resilience*, 16-17 November, 2022, Vienna, Austria. [Download](#)
- [33] **Jung, M.** (2022) "ibis.iSDM - A modelling framework for integrated species distribution models", *European Conference for Conservation Biology (ECCB)*, August 22-26, Prague, Czechia, [Download link](#)

- [34] **Jung, M.**, Raj Daha, P., Butchart, Donald, P.F., Rondini, C. and Visconti, P. (2020) "A Global Map Of Species Terrestrial Habitat Types", *World Biodiversity Forum*, February 23-28, Davos, Switzerland [Download](#)
- [35] **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** [Download](#)
- [36] **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](#)
- [37] **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](#)
- [38] **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](#)
- [39] Linder J.M., Gorschlüter L., Altherr, S., Waltert, M., **Jung, M.**, 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.

## Developed software and data

- Jung, M.** (2024). "Decadal BIOCLIM estimates based on ISIMIP3b climatic forcing data for the European continent" Zenodo. doi:10.5281/zenodo.13259644
- Jung, M.** (2022) "ibis.iSDM: Modelling framework for Integrated Biodiversity distribution scenarios". R package version, [Code](#)
- Jung, M.** (2023) "Implementation of the InSiGHTS framework" R package, [Code](#)
- Jung, M.** (2020) "A layer of global potential habitats", (Version 004) [Data set]. Zenodo. doi:10.5281/zenodo.4038749
- Tomislav, H., **Jung, M.** and Visconti, P. (2020) "Potential distribution of land cover classes (Potential Natural Vegetation) at 250 m spatial resolution" (Version v0.1) Zenodo. doi:10.5281/zenodo.3631254
- Jung, M.** (2017) "Global forest fragmentation data based on ALOS PALSAR data" [Download](#)
- Jung, M.** (2016) "LecoS — A python plugin for automated landscape ecology analysis". [Code](#)
- Jung, M.** (2014) "QSDM Species distribution modelling support for the QGIS Processing toolbox", [Download](#)

## Academic service

2024 - present One of 2 elected **staff representatives** for the IIASA Science Cabinet (small chamber).

2024 - present Elected **staff representative** for the IIASA Science Parliament, largest academic governing body (big chamber) of the Institute.

2023 - **External examiner** of the PhD thesis from *Roshan Sharma* from the Royal Melbourne Institute of Technology (RMIT), Melbourne, Australia.

2022 - present **IPBES Fellow** contributing to the IPBES Nexus assessment.

2019 - present **Associate Editor** for Diversity and Distributions.

Scientific Reviewer for Ecology, Environmental Science and Remote Sensing journals, including *Science*, *Nature Communications*, *Global Change Biology*, *PLOS Biology*, *Conservation biology*, *Ecological Informatics* and many others. See [here](#) for (incomplete) list.

## Supervision and teaching experience

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### Supervision

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2024 - Sophie Tudge, PhD student from University of Surrey, UK. Supervisory team of YSSP project 2024.

2023-27 - Caroline Johnson, PhD student at the University of Birmingham, United Kingdom. Acting co-supervisor.

2022-26 - Leonie Jonas, PhD student at the University of Turku, Finland. Acting co-supervisor.

2022-24 - Julia Hackländer, PhD student at the Wageningen university, Netherlands. Acting co-supervisor.

2022 - Millie Chapman, PhD student from the University of California, Berkeley, Co-supervisor. **2022 IIASA Peccei award for an outstanding project.**

2021 - Peta Brom, PhD student from the University of Cape Town (UCT), Co-supervisor as part of the YSSP 2021 cohort.

2021 - Valentina Marconi, PhD student from the Zoological Society of London (ZSL), Primary supervisor as part of the YSSP 2021 cohort.

### Teaching

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2024 - An introduction into the principles and application of systematic conservation planning using integer programming *ECCB 2024*, Bologna, Italy. Number of Attendants: **35**, Training materials available [here](#).

2022-2023 - Workshops in Species distribution modelling - IIASA, Austria; Number of Attendants: **10**

2018 - QGIS workshop for postgraduates - University of Sussex, UK; Number of Attendants: **25**

2018 - Introduction to Geographical Information systems - University of Sussex, UK; Number of Attendants: **40**

2017 - Tutor on R course for PhD, MSc and BSc students - R4ALL, UK; Number of Attendants: **40**

2016-19 - Introduction to Ecology and Conservation - University of Sussex, UK; Number of Attendants: **100**

2015 - Tutoring on Workshop "Landscape Ecology analysis in QGIS" - University of Lund, Sweden; Number of Attendants: **15**

2014 - Workshop "Vegetation from space and from the ground" - African Insect Science for Food and Health (ICIPE), Kenya; Number of Attendants: **15**

2013 - Workshop "Landscape Ecology analysis in QGIS" - University of Lund, Sweden; Number of Attendants: **15**

## Professional workshops and further training

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2024 - Participation in Bending the Curve (BTC2) workshop, University of Utrecht, Utrecht, Netherlands

2024 - Participation in workshop for *BES-SIM2* in support of the KM-GBF, iDiv, Leipzig, Germany

2022-23 - Participation in expert sDIV synthesis workshop *sREDLIST* at iDIV with the goal of exploring ways to automatise species extinction risk assessments.

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

## Awards and community recognition

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2023 - European Early Career Conservation Award of the Society for Conservation Biology **Announcement**

2018 - Doctoral festival - runner up research image prize in the category science.

## Successful raised funding

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Totally raised funding for me or people working with me: **3 672 749 €**

2022 - Task lead on the Horizon Europe funded "Assessing Climate Change Risk in EUrope" (ACCREU) Volume: 140 000 € (Total: 5 000 000 €)

2022 - Austrian Scientific lead on the Biodiversa+ funded "INtegrated Spatial PlannIng across REalms (INSPIRE)" project. Volume: 221 000 € (Total: 1 515 795 €)

2022 - WP lead and member of governance board on Horizon Europe for "Supporting the development of a coherent and resilient Trans-European Nature Network" (NaturaConnect) Project website Volume: 1 513 750 € (Total: 10 000 000 €)

2021 - Task lead on Global Foodscapes project, responsible for spatial data creation, Funded by The Nature Conservancy (Foodscapes Volume: 40 000 € (Total: 159 118 €))

2021 - Supervisory team member (Main recipient: Elie Gaget) of Kone Foundation grant for a PhD scholarship in "Climate warming adaptation for bird conservation" (Total: 167 200 €)

- 2021 - Biodiversity modelling contributor to the "Streamlining participatory approaches and agent-based models to explore ideas of fairness at the food-water-biodiversity (FWB) nexus (Acronym: fairSTREAM)" (Volume: 390 000 €)
- 2020 - Co-applicant and thematic expert on Biodiversity modelling on EU-Tender "European Union BIOdiversity and CLIMate strategies Assessment (Acronym: EU-BIOCLIMA)" (Total 1 000 000 €)
- 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 €

## Professional References

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- Available on request