
Curriculum Vitae

Eike Lena Neuschulz

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Current position

Since Jun 2018 Senior Scientist (permanent), Senckenberg Biodiversity and Climate Research Centre (SBiK-F), Frankfurt am Main (Germany); working groups Prof. Dr. Katrin Böhning-Gaese & PD Dr. Matthias Schleuning

Past positions and education

Dez 2023 Habilitation (*venia legendi*) in Ecology at Goethe-Universität Frankfurt, Thesis: "*Biotic interactions and plant regeneration across environmental gradients*"

2011 - 2018 Postdoctoral researcher, Senckenberg Biodiversity and Climate Research Centre (SBiK-F), Frankfurt; working group Prof. Dr. Katrin Böhning-Gaese

Nov 2011 Graduation (Dr. rer. nat), Philipps-Universität Marburg, Germany

2008–2011 PhD studies at Philipps-Universität Marburg (Prof. Dr. Nina Farwig) Thesis: "*Modified forests are vital for species communities and ecosystem functionality in a heterogeneous South African landscape*"

Mar 2008 Diploma in biology, Philipps-Universität Marburg, Germany (Prof. Dr. Birgit Ziegenhagen) Thesis: "*Species crossability relationships and hybrid performance of riparian willows*"

2002–2008 Studies of biology at the Philipps-Universität Marburg, major focus on nature conservation, plant ecology & botany

Selected grants and awards

2021-2024 PI on DFG-grant: "Trait-dependent effects of abiotic and biotic filters on plant regeneration in mountain dry forest and mountain rain forest" as part of the Research Unit "Environmental changes in biodiversity hotspot ecosystems of South Ecuador: Response and feedback effects (Reassembly)"; NE 1863/3-2, >191,000 €

2021-2025 PI on DFG-grant: "Seed dispersal by birds, bats and rodents" as part of the Research Unit "Reassembly of species interaction networks – Resistance, resilience and functional recovery of a rainforest ecosystem (Reassembly)"; NE 1863/4-1, >149,000 €

2020-2023	PI on DFG-grant: "The role of intraspecific variation in seed dispersal, traits, and genetic diversity for the response capacity of plants to climate change"; NE 1863/2-2, >274,000 €)
2018-2021	PI on DFG-grant: "Trait-dependent effects of biotic and abiotic filters on plant regeneration" as part of the Research Unit "Environmental changes in biodiversity hotspot ecosystems of South Ecuador: Response and feedback effects (RESPECT)"; NE 1863/3-1, >187,000 €
2015-2018	PI on DFG-grant: Differential effects of seed dispersal interactions on plant regeneration across environmental gradients; NE 1863/2-1, >210,000 €
2013-2015	Postgraduate fellowship of the Daimler & Benz Foundation (40.000 €)
Oct 2011	Young Scientist Award (3 rd price for oral presentation), Deutsche Ornithologen-Gesellschaft
Aug 2009	Maria Sybilla Merian Award (best talk), Society for Tropical Ecology

Academic services

- Member of the advisory board (co-speaker) of the Society for Tropical Ecology (gtö), since 2012; Editor of the societies' newsletter
- Subject-Editor for *Biotropica*, since 2014
- Jury member "Jugend Forscht, Landeswettbewerb", since 2012

ad-hoc referee for Ecography, Global Ecology and Biogeography, Journal of Applied Ecology, Journal of Ecology, Journal of Biogeography, Proceedings of the Royal Society B, Royal Society Open Science, Ecological Indicators, Scientific Reports, Oikos, Animal Conservation, Biotropica, Acta Oecologica, African Journal of Ecology, Basic & Applied Ecology, Ecological Research, Ibis, Journal of Ornithology, Journal of Tropical Ecology, Ostrich, Science of the Total Environment

Reviewed proposals for German Research Foundation (DFG), National research foundation (NRF, South Africa), Graduate women in Science fellowship programme (GWIS, USA), FRIAS Fellowship programme (University of Freiburg)

Selected publications

Barczyk, M., D. C. Acosta-Rojas, C. I. Espinosa, M. Schleuning, **E. L. Neuschulz** (2023) Biotic pressures and environmental heterogeneity shape beta-diversity of seedling communities in tropical montane forests. *Ecography*, 6, e06538, <https://doi.org/10.1111/ecog.06538>

Merges, D., J. Albrecht, K. Böhning-Gaese, M. Schleuning & **E. L. Neuschulz** (2020) Environmental context determines the limiting demographic processes for plant recruitment across a species' elevational range. *Scientific Reports* 10, 10855.

Merges, D., M. Bálint, I. Schmitt, P. Manning & **E. L. Neuschulz** (2019) High throughput sequencing combined with null model tests reveals specific plant-fungi associations linked to seedling establishment and survival. *Journal of Ecology*, 108:574-585

Neuschulz, E. L., D. Merges, K. Bollmann, F. Gugerli & K. Böhning-Gaese (2018) Biotic interactions and seed deposition rather than abiotic factors determine recruitment at elevational range limits of an alpine tree. *Journal of Ecology*, 106:948-959

Neuschulz, E. L., T. Mueller, M. Schleuning & K. Böhning-Gaese (2016) Pollination and seed dispersal are the most threatened processes of plant regeneration. *Scientific Reports* 6: 29839, doi:10.1038/srep29839

Neuschulz, E. L., T. Mueller, K. Bollmann, F. Gugerli & K. Böhning-Gaese (2015) Seed perishability determines the caching behavior of a food-hoarding bird. *Journal of Animal Ecology* 84:71-78

Quitíán, M., V. Santillán, I. M. A. Bender, C. I. Espinosa, J. Homeier, K. Böhning-Gaese, M. Schleuning & **E. L. Neuschulz** (2019) Functional responses of avian frugivores to variation in fruit resources between natural and fragmented forests, *Functional Ecology*, 33:399-410

Quitíán, M., V. Santillán, C. I. Espinosa, J. Homeier, K. Böhning-Gaese, M. Schleuning & **E. L. Neuschulz** (2018) Elevation-dependent effects of forest fragmentation on plant-bird interaction networks in the tropical Andes, *Ecography*, 41: 1497-1506

Schleuning, M., **E. L. Neuschulz**, J. Albrecht, I. M. A. Bender, D. E. Bowler, D. M. Dehling S. A. Fritz, C. Hof, T. Mueller, L. Nowak, M. C. Sorensen, K. Böhning-Gaese & W. D. Kissling (2020) Trait-based assessments of climate-change impacts on interacting species. *Trends in Ecology and Evolution*, 35:319-328

Sorensen, M. C., T. Mueller, I. Donoso, V. Graf, D. Merges, M. Vanoni, W. Fiedler, **E. L. Neuschulz** (2022) Scatter-hoarding birds disperse seeds to sites unfavorable for plant regeneration. *Movement Ecology*, 10:1-7