

## Publications

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Peer-reviewed journal articles:

Google Scholar h-index: 18 (January 2022)

- Marjakangas, E.-L., G. Muñoz, S. Turney, J. Albrecht, **E. L. Neuschulz**, M. Schleuning, J.-P. Lessard (accepted) Trait-based inference of ecological network assembly: a conceptual framework and methodological toolbox. *Ecological Monographs*
- Tobias, J. A., C. Sheard, A. L. Pigot, ... **E. L. Neuschulz**, ... et al. (accepted) AVONET: morphological, ecological and geographical data for all birds. *Ecology Letters*
- Dehling, D. M., I. M. A. Bender, P. G. Blendinger, K. Böhning-Gaese, M. C. Muñoz, **E. L. Neuschulz**, M. Quitián, F. Saavedra, V. Santillán, M. Schleuning, D. B. Stouffer (2021) Specialists and generalists fulfil important and complementary functional roles in ecological processes. *Functional Ecology*, 35:1810-1821
- Bendix, J., N. Aguire, E. Beck, A. Bräuning, R. Brandl, L. Breuer, K. Böhning-Gaese, M. Dantas de Paula, T. Hickler, J. Homeier, D. Inclan, C. Leuschner, **E. L. Neuschulz**, M. Schleuning, J. P. Suarez, K. Trachte, W. Wilcke, D. Windhorst, N. Farwig (2021) A research framework for projecting ecosystem change in highly diverse tropical mountain ecosystems. *Oecologia*, 195:589-600
- Vollstädt, M. G. R., J. Albrecht, K. Böhning-Gaese, A. Hemp, K. M. Howell, L. Kettering, A. Neu, **E. L. Neuschulz**, M. Quitián, V. Santillán, T. Töpfer, M. Schleuning, S. A. Fritz (2020) Direct and plant-mediated effects of climate on bird diversity in tropical mountains. *Ecology and Evolution*, 10:14196-14208
- Sorensen, M. C., I. Donoso, **E. L. Neuschulz**, M. Schleuning, T. Mueller (2020) Community-wide seed dispersal distances peak at low levels of specialisation in size-structured networks. *Oikos*, 129:1727-1738
- 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
- Donoso, I., M. C. Sorensen, P. G. Blendinger, W. D. Kissling, **E. L. Neuschulz**, T. Mueller & M. Schleuning (2020) Downsizing of animal communities triggers stronger functional than structural decay in seed-dispersal networks. *Nature Communications*, 11, 1582
- Dehling, D. M., G. Peralta, I. M. A. Bender, P. G. Blendinger, K. Böhning-Gaese, M. C. Muñoz, **E. L. Neuschulz**, M. Quitián, F. Saavedra, V. Santillán, M. Schleuning & D. B. Stouffer (2020) Similar composition of functional roles in Andean seed-dispersal networks, despite high species and interaction turnover. *Ecology*, doi: <https://doi.org/10.1002/ecy.3028>
- 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
- Kattge, J., G. Bönisch, S. Díaz, **E. L. Neuschulz**, ...et al. (2020) TRY plant trait database—enhanced coverage and open access. *Global Change Biology*, 26:119-188
- Santillán, V., M. Quitián, B. A. Tinoco, E. Zárate, M. Schleuning, K. Böhning-Gaese & **E. L. Neuschulz** (2020) Direct and indirect effects of elevation, climate and vegetation structure on bird communities on a tropical mountain. *Acta Oecologica*, 102, 103500

- 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
- Engelhardt, E. K., **E. L. Neuschulz** & C. Hof (2019) Ignoring biotic interactions overestimates climate change effects: The potential response of the spotted nutcracker to changes in climate and resource plants. *Journal of Biogeography*, 47:143-154
- Hanz, D. M., **E. L. Neuschulz**, K. Böhning-Gaese, M. Quitián, S. W. Ferger, S. A. Fritz, T. Töpfer, V. Santillán & M. Schleuning (2019) Functional and phylogenetic diversity of bird assemblages are filtered by different biotic factors on tropical mountains. *Journal of Biogeography*, 46:291-303
- Quitíán, M., V. Santillán, C. I. Espinosa, J. Homeier, K. Böhning-Gaese, M. Schleuning & **E. L. Neuschulz** (2019) Direct and indirect effects of plant and frugivore diversity on structural and functional components of fruit removal by birds. *Oecologia*, 189, 435-445
- Santillán, V., M. Quitián, B. A. Tinoco, E. Zárate, M. Schleuning, K. Böhning-Gaese & **E. L. Neuschulz** (2019) Different responses of taxonomic and functional bird diversity to forest fragmentation across an elevational gradient. *Oecologia*, 189, 863-873
- 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
- Dugger, P., ... **E. L. Neuschulz**, ...et al. (2019) Seed-dispersal networks are more specialized in the Neotropics than in the Afrotropics. *Global Ecology and Biogeography*, 28:248-261
- Santillán, V., M. Quitián, B. A. Tinoco, E. Zárate, M. Schleuning, K. Böhning-Gaese & **E. L. Neuschulz** (2018) Spatio-temporal variation in bird assemblages is associated with fluctuations in temperature and precipitation along a tropical elevational gradient. *PLOS ONE*, <https://doi.org/10.1371/journal.pone.0196179>
- Bender, I. M. A., W. D. Kissling, P. G. Blendinger, K. Böhning-Gaese, I. Hensen, I. Kühn, M. C. Munoz, **E. L. Neuschulz**, L. Nowak, M. Quitián, F. Saavedra, V. Santillán, T. Töpfer, T. Wiegand, D. M. Dehling & M. Schleuning (2018) Morphological trait matching shapes plant-frugivore networks across the Andes. *Ecography*, 41:1910-1919
- Merges, D., M. Bálint, I. Schmitt, K. Böhning-Gaese & **E. L. Neuschulz** (2018) Spatial patterns of pathogenic and mutualistic fungi across the elevational range of a host plant. *Journal of Ecology*, 106:1545-1557
- Featured in the *Journal of Ecology* blog:  
<https://jecologyblog.wordpress.com/2018/03/13/fungi-made-it-first/>
- 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
- Featured in the *Ecography* blog: <http://www.ecography.org/blog/plant-bird-interactions-respond-stronger-fragmentation-high-low-elevations>
- 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
- Featured among others in NZZ:  
<https://www.nzz.ch/wissenschaft/klima/klimawandel-in-den-alpen-fuer-die-arve-wird-es-eng-ld.1304067>
- Munoz Neyra, M. C., H. M. Schaefer, K. Böhning-Gaese, **E. L. Neuschulz** & M. Schleuning (2017) Phylogenetic and functional diversity of fleshy-fruited plants are positively associated with seedling diversity in a tropical montane forest. *Frontiers in Ecology and Evolution* 5, 93, <https://doi.org/10.3389/fevo.2017.00093>

- Saavedra, F., I. Hensen, A. Apaza Quevedo, **E. L. Neuschulz** & M. Schleuning (2017) Seed-deposition and recruitment patterns of *Clusia* species in a disturbed tropical montane forest in Bolivia. *Acta Oecologica* 85:85-92
- Hudson, L. N., Newbold, T., ... **E. L. Neuschulz**, ... & A. Purvis (2017) The database of the PREDICTS (Projecting Responses of Ecological Diversity In Changing Terrestrial Systems) project. *Ecology and Evolution* 7: 145-188
- 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
- Featured among others in ScienceDaily:  
<https://www.sciencedaily.com/releases/2016/07/160720094442.htm>
- 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
- Featured among others in Scientific American, Spektrum & Naturzyt:  
<https://www.scientificamerican.com/article/clever-bird-uses-nature-as-its-breadbox/>  
<http://www.spektrum.de/news/die-oekologie-des-sammelns/1319603>  
[http://www.bik-f.de/files/mitarbeiterseiten/ntz\\_dez\\_15\\_tannenhaeher-2.pdf](http://www.bik-f.de/files/mitarbeiterseiten/ntz_dez_15_tannenhaeher-2.pdf)
- Grass, I., R. Brandl, A. Botzat, **E. L. Neuschulz** & N. Farwig (2015) Contrasting taxonomic and phylogenetic diversity responses to forest modifications: comparisons of taxa and successive plant life stages in South African scarp forest. *PLOS ONE*, doi: 10.1371/journal.pone.0118722.
- Hudson, L. N., Newbold, T., ... **E. L. Neuschulz**, ... & A. Purvis (2014) The PREDICTS database: a global database of how local terrestrial biodiversity responds to human impacts. *Ecology and Evolution* 4:4701-4735
- Plein M., L. Längsfeld, **E. L. Neuschulz**, C. Schultheiß, L. Ingmann, T. Töpfer, K. Böhning-Gaese, & M. Schleuning (2013) Constant properties of plant-frugivore networks despite fluctuations in fruit and bird communities in space and time. *Ecology* 94:1296-1306
- Neuschulz E. L.**, M. Brown & N. Farwig (2013) Frequent bird movement activity across a highly fragmented landscape: the role of species traits and forest matrix. *Animal Conservation* 16:170-179
- Mulwa R. K., **E. L. Neuschulz**, K. Böhning-Gaese & M. Schleuning (2013) Seasonal fluctuations of resource abundance and avian feeding guilds across habitat boundaries in tropical Africa. *Oikos* 122:524-532
- Neuschulz E. L.**, I. Grass, A. Botzat, S. D. Johnson & N. Farwig (2013) Persistence of flower visitors and pollination services of a generalist tree in modified forests. *Austral Ecology* 38:374-382
- Albrecht J., **E. L. Neuschulz** & N. Farwig (2012) Impact of habitat structure and fruit abundance on avian seed dispersal and fruit predation. *Basic and Applied Ecology* 13: 347-354
- Neuschulz E. L.**, A. Botzat & N. Farwig (2011) Effects of forest modification on bird community composition and seed removal in a heterogeneous landscape in South Africa. *Oikos* 120:1371-1379

Non-ISI-listed articles and book chapters:

- Neuschulz, E. L.**, Quitián, M., Santillán, V., Schleuning, M. & Böhning-Gaese, K. (2017) Development and validation of functional indicators for avian seed dispersal. In: *Landscape restoration, sustainable use and cross-scale monitoring of biodiversity and*

ecosystem functions. Beck, E., Knoke, T., Breuer, L., Siddons, D. & Bendix, J. (eds.) University of Marburg, Germany.

Närman, F., Küfmann, C. & **E. L. Neuschulz** (2017) Präferenzen des Tannenhähers *Nucifraga caryocatactes* beim Anlegen von Samenverstecken. Ornithologischer Anzeiger 55, 89-98

**Neuschulz, E. L.** (2016) Plant-animal interactions in tropical mountain forest. In: Biodiversity Hotspot – Tropical mountain rainforest. Bogner, F. X., Bendix, J. & Beck, E. (eds.) Naturaleza y Cultura Internacional, Loja, Ecuador.

Schleuning, M., T. Müller & **E. L. Neuschulz** (2015) Tiere pflanzen den Wald von morgen. Senckenberg Jahresberichte 2013-2014