

## Curriculum Vitae

### Prof. Dr. Nico Eisenhauer



#### Contact details

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|-------------------------|---|
| <b>Position</b>         | <b>Full Professor for Experimental Interaction Ecology</b>  |
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#### Links

experimental  
interaction  
ecology



ORCID

publons

## Scientific career

- Since 2014      **Full Professor (W3) for *Experimental Interaction Ecology***, German Centre for Integrative Biodiversity Research (iDiv) Halle-Jena-Leipzig and Leipzig University
- 2013              Offer of Full Professor (W3) for *Animal Evolution and Ecology*, Technical University München, rejected
- 2012 – 2014      Associate Professor (W2) for *Terrestrial Ecology*, Friedrich Schiller University Jena
- 2012              Habilitation (***Venia Legendi in Ecology and Zoology***), Georg August University Göttingen
- 2012              Emmy Noether group leader (funded by DFG), Technical University München
- 2012              Postdoc in the lab of Prof. Wolfgang W. Weisser, Technical University München
- 2010 – 2012      Postdoc in the lab of Prof. Peter B. Reich, University of Minnesota (funded by DFG): *Aboveground–belowground interactions in a changing world*
- 2008 – 2010      Postdoc in the Jena Experiment, Darmstadt University of Technology and Georg August University Göttingen. Subproject *Decomposer Interaction Webs*
- 2005 – 2008      PhD at the Darmstadt University of Technology under the supervision of Prof. Dr. S. Scheu. Title: *Earthworms in a plant diversity gradient: Direct and indirect effects on plant competition and establishment* in the Jena Experiment funded by the German Research Foundation (DFG, FOR 456) (***summa cum laude***)
- 2004 – 2005      Diploma thesis: *Invasion of a deciduous forest by earthworms: Changes in soil chemistry, microflora, microarthropods and vegetation*, supervised by Prof. Dr. S. Scheu at the TU Darmstadt, Germany and Prof. Dr. D. Parkinson at the University of Calgary, Canada (***certified biologist with distinction***)
- 2000 – 2004      Study of Biology at the Darmstadt University of Technology
- 1999              Abitur at the Martin-Luther Gymnasium Rimbach (final grade 1.0; ***with distinction***)

## Prizes, awards, recognition

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|------|---|
| 2023 | <b>Top Scientist</b> (discipline: Ecology & Evolution), <b>Ecology and Evolution Leader Award 2023</b> , Research.com |
| 2023 | <b>Honorary award</b> by the City of Fürth (Odenwald) for scientific achievements                                     |
| 2022 | <b>Top Scientist</b> (discipline: Ecology & Evolution), Research.com  |
| 2021 | <b>World Expert in Soil</b> (top 0.1%), Expertscape   |
| 2021 | <b>Reuters list of the world's top climate scientists</b> , Reuters   |
| 2021 | <b>Gottfried Wilhelm Leibniz Prize</b> , German Research Foundation   |
| 2020 | Selected <b>Alexander von Humboldt Scout</b> of the Henriette Herz Scouting Programme                                 |
| 2020 | <b>Highly Cited Researcher 2020</b> , Clarivate   |
| 2016 | <b>ERC Starting Grant</b> , European Research Council   |
| 2014 | <b>"Top 40 under 40"</b> , magazine Capital ( <b>"Best of Germany"</b> )  |
| 2014 | <b>Heinz Maier Leibnitz Prize</b> , German Research Foundation  |
| 2012 | <b>Emmy-Noether scholarship</b> , German Research Foundation  |
| 2010 | <b>Postdoc research scholarship</b> , German Research Foundation  |
| 2004 | <b>Research scholarship</b> , German Academic Exchange Service (DAAD)   |



## Commission of trust

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|-------------|--|
| 2023 –      | Member of the Gottfried Wilhelm Leibniz Prize selection committee (DFG)  |
| 2021 –      | Member of the <a href="#">Fachgremium Bodenbiodiversität</a> at the Nationales Monitoringzentrum zur Biodiversität (NMZB) of the Bundesamt für Naturschutz (BfN) |
| 2020 –      | Chair of the Prize Committee at iDiv   |
| 2020 – 2021 | Chair of the <a href="#">Science Strategy Board</a> at iDiv, 6 months  |
| 2020        | Member of the <a href="#">iDiv Speaker Board</a> (Leipzig University Representative, on behalf of Prof. Christian Wirth), 6 months                               |
| 2019 – 2020 | Co-Chair of the <a href="#">Science Strategy Board</a> at iDiv, 6 months   |
| 2018 –      | Permanent member of the <a href="#">Science Strategy Board</a> at iDiv   |
| 2018 –      | Elected member of the Faculty of Life Sciences, Leipzig University   |
| 2015 –      | Speaker of the Research Unit of the <a href="#">Jena Experiment</a>  |

- 2015 – Head of the [MyDiv Experiment](#)
- 2014 – Head of the [iDiv Ecotron](#)
- 2014 – 2019 [yDiv](#) Board member (graduate school of iDiv)

Since 2012 member of the *Advisory Board* of [TUMmesa](#); since 2019 member of the Steering Board of the UFZ [Global Change Experimental Facility](#) (GCEF); since 2020 member of the International Advisory Board of the [Netherlands Plant Eco-phenotyping Centre](#) (NPEC); since 2021 member of the iDiv Greenhouse Committee; since 2021 member of the *Scientific Advisory Board* for the [Deep Soil Ecotron](#) (University of Idaho).

## Editorial boards

- 2021 – **Advisory Editorial Board** at [Journal of Sustainable Agriculture and Environment](#)
- 2019 – **Editor-in-Chief** at [Soil Organisms](#)
- 2014 – 2018 Editor-in-Chief at *Pedobiologia – Journal of Soil Ecology*
- 2012 – 2013 Subject Editor at *Plant and Soil*
- 2011 – 2013 Subject Editor at *Biodiversity and Conservation*

## Reviewer for scientific journals and foundations



### Reviewer/editor of >500 scientific papers and project proposals

**Scientific journals:** Applied Soil Ecology, Basic and Applied Ecology, Catena, Current Biology, Diversity, Ecology, Ecography, Ecology Letters, Écoscience, Ecosystems, eLife, European Journal of Soil Biology, FEMS Microbiology Letters, Functional Ecology, Global Ecology and Biogeography, ISME Journal, Journal of Applied Ecology, Journal of Ecology, Journal of Vegetation Science, Nature, Nature Climate Change, Nature Communications, Nature Ecology and Evolution, Nature Plants, Oecologia, Oikos, Pedobiologia, Pedosphere, Plant Biology, Plant and Soil, PLoS ONE, Philosophical Transactions of the Royal Society B, Proceedings of the National Academy of Sciences USA, Proceedings of the Royal Society B, Science, Science Advances, Science of the Total Environment, Scientific Reports, Soil Biology and Biochemistry, Soil Organisms, Trends in Plant Science

**Foundations:** Alexander von Humboldt Foundation, Czech Science Foundation, European Research Council, German Research Foundation, Helmholtz Impulse Fond, National Science Foundation USA, Swiss National Science Foundation

## Memberships



Since 2012 Deutscher Hochschulverband (DHV), 2007-2023 Ecological Society of America (ESA), since 2007 Ecological Society of Germany, Austria and Switzerland (GfÖ), since 2014 Full member of the German Centre for Integrative Biodiversity Research [iDiv](#), since 2019 Founding member of [Soil BON](#); Member of [Nutrient Network](#) (PI of site **BadNut** in Bad Lauchstädt, with Sylvia Haider), since 2015 Member of [TreeDivNet](#) (PI of the **MyDiv** Experiment), [Drought-Net](#) (PI of site **BadDrought** in Bad Lauchstädt, with Harald Auge), and [BugNet](#) (PI of site **BadBug** in Bad Lauchstädt, with Harald Auge, Malte Jochum, Lotte Korell, & Martin Schädler).

## Outreach & public relations



Since 2014, the Experimental Interaction Ecology group appeared in 18 TV shows, 22 radio interviews, 195 print articles, 351 online articles, 12 public talks, and 55 other outreach activities (like open days, public tours etc.). For detailed list of activities, see [here](#).

## Papers in peer-reviewed journals (chronologically, date of acceptance)



June 22, 2023: **433 publications in peer-reviewed journals; 32 other publications (publications total: 465); 26,794 citations; Google Scholar H-index 87; i10-index 307; in gray accepted/in press**

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### 2023 [31 papers]

**433** Bei Q, Reitz T, Schnabel B, **Eisenhauer N**, Schädler M, Buscot F, & Heintz-Buschart A (2023) *Extreme summers impact cropland and grassland soil microbiomes*. *ISME Journal*, accepted.

**432** Beugnon R, **Eisenhauer N**, Bruelheide H, Davrinche A, Du J, Haider S, Haehn G, Saadani M, Singavarapu B, Sünnemann M, Thouvenot L, Wang Y, Wubet T,

Xue K, & Cesarz S (2023) *Tree diversity effects on litter decomposition are mediated by litterfall and microbial processes*. **Oikos**, accepted.

- 431 Beaumelle L, Tison L, **Eisenhauer N**, Hines J, Malladi S, Pelosi C, Thouvenot L, & Phillips HRP (2023) *Pesticide effects on soil fauna communities—A meta-analysis*. **Journal of Applied Ecology**, in press; <https://doi.org/10.1111/1365-2664.14437>.
- 430 **Eisenhauer N**, Angst G, Asato AEB, Beugnon R, Bönisch E, Cesarz S, Dietrich P, Jurburg SD, Madaj A-M, Reuben RC, Ristok C, Sünemann M, Yi H, Guerra CA, & Hines J (2023) *The heterogeneity-diversity-system performance nexus*. **National Science Review**, in press; <https://doi.org/10.1093/nsr/nwad109>.
- 429 Siles JA, Vera A, ... **Eisenhauer N**, ..., & Bastida F (2023) *Land-use- and climate-mediated variations in soil bacterial and fungal biomass across Europe and their driving factors*. **Geoderma** 434: 116474; <https://doi.org/10.1016/j.geoderma.2023.116474>.
- 428 Maciá-Vicente JG, Francioli D, Weigelt A, Albracht C, Barry KE, Buscot F, Ebeling A, **Eisenhauer N**, Hennecke J, Heintz-Buschart A, van Ruijven J, & Mommer L (2023) *The structure of root-associated fungal communities is related to the long-term effects of plant diversity on productivity*. **Molecular Ecology**, in press; <https://doi.org/10.1111/mec.16956>.
- 427 Yin R, Qin W, Wang X, Xie D, Wang H, Zhao H, Zhang Z, He J-S, Schädler M, Kardol P, **Eisenhauer N**, & Zhu B (2023) *Experimental warming causes mismatches in alpine plant-microbe-fauna phenology*. **Nature Communications** 14: 2159; <https://doi.org/10.1038/s41467-023-37938-3>.
- 426 **Eisenhauer N**, Hines J, Maestre F, & Rillig MC (2023) *Reconsidering functional redundancy in biodiversity research*. **Biodiversity** 2: article no. 9; <https://doi.org/10.1038/s44185-023-00015-5>.
- 425 Asato AEB, Wirth C, **Eisenhauer N**, & Hines J (2023) *On the phenology of soil organisms: current knowledge and future steps*. **Ecology & Evolution** 13: e10022; <https://doi.org/10.1002/ece3.10022>.
- 424 Heklau H, Schindler N, **Eisenhauer N**, Ferlian O, & Bruehlheide H (2023) *Temporal variation of mycorrhization rates in a tree diversity experiment*. **Ecology & Evolution** 13: e10002; <https://doi.org/10.1002/ece3.10002>.
- 423 Albracht C, **Eisenhauer N**, Vogel A, Wagg C, Buscot F, & Heintz-Buschart (2023) *Effects of recurrent summer droughts on arbuscular mycorrhizal and total fungal*

*communities in experimental grasslands differing in plant diversity and community composition. **Frontiers in Soil Science** 3: 1129845; <https://doi.org/10.3389/fsoil.2023.1129845>.*

- 422** Terlau JF, Brose U, **Eisenhauer N**, Amyntas A, Boy T, Dyer A, Gebler A, Hof C, Liu T, Scherber C, Schlägel UE, Schmidt A, & Hirt MR (2023) *Microhabitat conditions remedy heat stress effects on insect activity. **Global Change Biology** 29: 3747-3758; <https://doi.org/10.1111/gcb.16712>.*
- 421** Bakker JD, Price JN, Henning JA, ... **Eisenhauer N**, ..., & Wardle GM (2023) *Compositional variation in grassland plant communities. **Ecosphere** 14: e4542; <https://doi.org/10.1002/ecs2.4542>.*
- 420** Heimbürger B, Klein A, Roth A, Scheu S, **Eisenhauer N**, & Schaefer I (2023) *Population structure and genetic variance among local populations of a non-native earthworm species in Minnesota, USA. **Biological Invasions** 25: 2361–2375; <https://doi.org/10.1007/s10530-023-03048-w>.*
- 419** Risch AC, Zimmermann S, Schütz M, Borer ET, Broadbent AAD, Caldeira MC, Davies KF, **Eisenhauer N**, Eskelinen A, Fay PA, Hagedorn F, Knops JMH, Lembrechts JJ, MacDougall AS, McCulley RL, Melbourne BA, Moore JL, Power SA, Seabloom EW, Silveira ML, Virtanen R, Yahdjian L, & Ochoa-Hueso R (2023) *Drivers of the microbial metabolic quotient across global grasslands. **Global Ecology & Biogeography** 32: 904-918; <https://doi.org/10.1111/geb.13664>.*
- 418** Luo S, Phillips RP, Jo I, Fei S, Liang J, Schmid B, & **Eisenhauer N** (2023) *Higher productivity in forests with mixed mycorrhizal strategies. **Nature Communications** 14: 1377; <https://doi.org/10.1038/s41467-023-36888-0>.*
- 417** Daleo P, Alberti J, Chaneton EJ, Iribarne O, Tognetti PM, Bakker JD, Borer ET, Bruschetti M, MacDougall AS, Pascual J, Sankaran M, Seabloom EW, Wang S, Bagchi S, Brudvig LA, Catford JA, Dickman CR, Dickson TL, Donohue I, **Eisenhauer N**, Gruner DS, Haider S, Jentsch A, Knops JMH, Lekberg Y, McCulley RL, ..., & Hautier Y (2023) *Environmental heterogeneity modulates the effect of plant diversity on the spatial variability of grassland biomass. **Nature Communications** 14: 1809; <https://doi.org/10.1038/s41467-023-37395-y>.*
- 416** Singavarapu B, Du J, Beugnon R, Cesarz S, **Eisenhauer N**, Xue K, Wang Y, Bruelheide H, & Wubet T (2023) *Functional potential of soil microbial communities and their subcommunities varies with tree mycorrhizal type and tree*



diversity. **Microbiology Spectrum** 11: e0457822;  
<https://doi.org/10.1128/spectrum.04578-22>.

- 415 Lange M, **Eisenhauer N**, Chen H, & Gleixner G (2023) *Increased soil carbon storage through plant diversity strengthens with time and extends into the subsoil.* **Global Change Biology** 29: 2627–2639; <https://doi.org/10.1111/gcb.16641>.
- 414 Dietrich P, **Eisenhauer N**, & Roscher C (2023) *Linking plant diversity–productivity relationships to plant functional traits of dominant species and changes in soil properties in 15-year-old experimental grasslands.* **Ecology & Evolution** 13: e9883; <https://doi.org/10.1002/ece3.9883>.
- 413 Gottschall F, Cesarz S, Auge H, Kovach KR, Nock CA, & **Eisenhauer N** (2023) *Tree community composition stabilizes ecosystem functions in response to drought.* **Ecosphere** 14: e4486; <https://doi.org/10.1002/ecs2.4486>.
- 412 Potapov AM, Guerra CA, van den Hoogen J, ..., Crowther TW, **Eisenhauer N**, & Scheu S (2023) *Globally invariant metabolism but density-diversity mismatch in springtails.* **Nature Communications** 14: 674; <https://doi.org/10.1038/s41467-023-36216-6>.
- 411 Müller J, Mitesser O, Cadotte MW, van der Plas F, Mori A, Ammer C, Chao A, Scherer-Lorenzen M, Baldrian P, Bässler C, Biedermann P, Cesarz S, Claßen A, Delory BM, Feldhaar H, Fichtner A, Hothorn T, Kuenzer C, Peters MK, Pierick K, Schmitt T, Schuldt B, Seidel D, Six D, Steffan-Dewenter I, Thorn S, von Oheimb G, Wegmann M, Weisser WW, & **Eisenhauer N** (2023) *Enhancing the structural diversity between forest patches – a concept and real-world experiment to study biodiversity, multifunctionality and forest resilience across spatial scales.* **Global Change Biology** 29: 1437-1450; <https://doi.org/10.1111/gcb.16564>.
- 410 Han X, Zhou G, Luo Q, Ferlian O, Zhou L, Meng J, Qi Y, Pei J, He Y, Lui R, Du Z, Long J, Zhou X, & **Eisenhauer N** (2023) *Plant biomass responses to elevated CO<sub>2</sub> are mediated by phosphorus uptake.* **Science of the Total Environment** 863: 160775; <http://dx.doi.org/10.1016/j.scitotenv.2022.160775>.
- 409 Beugnon R, Bu W, Bruelheide H, Davrinche A, Du J, Haider S, Kunz M, von Oheimb G, Perles-Garcia MD, Saadani M, Scholten T, Seitz S, Singavarapu B, Trogisch S, Wang Y, Wubet T, Xue K, Yang B, Cesarz S, & **Eisenhauer N** (2023) *Abiotic and biotic drivers of scale-dependent tree trait effects on soil microbial biomass and soil carbon concentration.* **Ecological Monographs** 93: e1563; <https://doi.org/10.1002/ecm.1563>.



- 408 van der Plas F, Schröder-Georgi T, Weigelt A, Barry K, Meyer ST, ..., **Eisenhauer N**, ..., & Wirth C (2023) *Reply to: Plant traits alone are good predictors of ecosystem properties when used carefully*. **Nature Ecology & Evolution** 7: 335–336; <https://doi.org/10.1038/s41559-022-01957-y>.
- 407 Reuben RC, Langer D, **Eisenhauer N**, & Jurburg SD (2023) *Universal drivers of cheese microbiomes*. **iScience** 26: 105744; <https://doi.org/10.1016/j.isci.2022.105744>.
- 406 Ristok C, Weinhold A, Ciobanu M, Poeschl Y, Roscher C, Vergara F, **Eisenhauer N\***, & van Dam NM\* (2023) *Plant diversity effects on herbivory are related to soil biodiversity and plant chemistry*. **Journal of Ecology** 111: 412–427. <https://doi.org/10.1111/1365-2745.14032>. \* senior authors.
- 405 Antunes AC, Gauzens B, Brose U, Potapov AM, Jochum M, Santini L, **Eisenhauer N**, Ferlian O, Cesarz S, Scheu S, & Hirt MR (2023) *Environmental drivers of local abundance-mass scaling in soil animal communities*. **Oikos** 2023: 2023: e09735; <https://doi.org/10.1111/oik.09735>.
- 404 Dietrich P, Ferlian O, Huang Y, Luo S, Quosh J, & **Eisenhauer N** (2023) *Tree diversity effects on productivity depend on mycorrhizae and life strategies in a temperate forest experiment*. **Ecology** 104: e3896; <https://doi.org/10.1002/ecy.3896>.
- 403 Isbell F, Balvandra P, Mori AS, He J-S, Bullock JM, ... **Eisenhauer N**,... (2023) *Expert perspectives on global biodiversity loss and its drivers and impacts on people*. **Frontiers in Ecology and the Environment** 21: 94–103; <https://doi.org/10.1002/fee.2536>.

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## 2022 [51 papers]

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- 402 Wagg C, Roscher C, Weigelt A, Vogel A, Ebeling A, de Luca E, Roeder A, Kleinspehn C, Temperton VM, Meyer ST, Scherer-Lorenzen M, Buchmann N, Fischer M, Weisser WW, **Eisenhauer N**, & Schmid B (2022) *Biodiversity-stability relationships strengthen over time in a long-term grassland experiment*. **Nature Communications** 13: 7752; <https://doi.org/10.1038/s41467-022-35189-2>.
- 401 Frey B, Moser B, Tytgat B, Zimmermann S, Alberti J, Biedermann LA, Borer ET, Broadbent AAD, Caldeira MC, Davies KF, **Eisenhauer N**, ..., & Risch AC (2022) *Long-term N-addition alters the community structure of functionally important N-*

- cycling soil microorganisms across global grasslands. **Soil Biology & Biochemistry** 176: 108887; <https://doi.org/10.1016/j.soilbio.2022.108887>.*
- 400** Mahecha MD, Bastos A, Bohn FJ, **Eisenhauer N**, Feilhauer H, Hartmann H, Hickler T, Kalesse-Los H, Migliavacca M, Otto FEL, Peng J, Quaas J, Tegen I, Weigelt A, Wendisch M, & Wirth C (2022) *Biodiversity loss and climate extremes – study the feedbacks. **Nature** 612: 30-32; <https://doi.org/10.1038/d41586-022-04152-y>.*
- 399** Delgado-Baquerizo M, Hu H-W, Maestre MT, Guerra CA, **Eisenhauer N**,..., & He J-Z (2022) *The global distribution and environmental drivers of the soil antibiotic resistome. **Microbiome** 10: 219; <https://doi.org/10.1186/s40168-022-01405-w>.*
- 398** Desie E, Zuo J, Verheyen K, Djukic I, Van Meerbeek K, ..., **Eisenhauer N**, ..., & Muys B (2022) *Disentangling drivers of litter decomposition in a multi-continent network of tree diversity experiments. **Science of the Total Environment** 857: 159717; <https://doi.org/10.1016/j.scitotenv.2022.159717>.*
- 397** Liu T, Wang X, Zhang W, **Eisenhauer N**, Shao Y, Zhao J, Li J, He X, Tao L, Fu S, & Lu X (2022) *Earthworms regulate the nematode community by directly enhancing the bacterial-based energy channel rather than through the effect of casts. **Pedobiologia** 95: 150843; <https://doi.org/10.1016/j.pedobi.2022.150843>.*
- 396** Maestre FT, Le Bagousse-Pinguet Y, Delgado-Baquerizo M, Eldridge DJ, Saiz H, Berdugo M, ..., **Eisenhauer N**, ..., Singh BK, & Gross N (2022) *Grazing and ecosystem service delivery in global drylands. **Science** 378: 915-920; DOI: 10.1126/science.abq4062.*
- 395** Ladouceur E, Blowes S, Chase J, Clark A, Garbowski M, Alberti J, ... **Eisenhauer N**, ... & Harpole S (2022) *Linking changes in species composition and biomass in a globally distributed grassland experiment. **Ecology Letters** 25: 2699-2712; <https://doi.org/10.1111/ele.14126>.*
- 394** Gruss I, Yin R, Siebert J, **Eisenhauer N**, & Schädler M (2022) *The responses of Collembola biomass to climate and land-use changes vary with life form. **Soil & Tillage Research** 225: 105541; <https://doi.org/10.1016/j.still.2022.105541>.*
- 393** **Eisenhauer N**, Bender SF, Calderón-Sanou I, de Vries FT, Lembrechts JJ, Thuiller W, Wall DH, Zeiss R, Bahram M, Beugnon R, Burton VJ, Crowther TW, Delgado-Baquerizo M, Geisen S, Kardol P, Krashevskaya V, Martínez-Muñoz CA, Patoine G, Seiber J, Soudzilovskaia NA, Steinwandter M, Sünemann M, Sun

- X, van der Heijden MGA, Guerra CA, & Potapov A (2022) *Frontiers in soil ecology—Insights from the World Biodiversity Forum 2022*. **Journal of Sustainable Agriculture & Environment** 1: 245-261; <https://doi.org/10.1002/sae2.12031>.
- 392** Wang Y, Du J, Pang Z, Liu Y, Xue K, Hautier Y, Zhang B, Tang B, Jiang L, Ji B, Xu X, Zhang J, Hu R, Zhou S, Wang F, Che R, Wang D, Zhou C, Cui X, **Eisenhauer N**, & Hao Y (2022) *Unimodal productivity-biodiversity relationship along the gradient of multidimensional resources across Chinese grasslands*. **National Science Review** 9: nwac165; <https://doi.org/10.1093/nsr/nwac165>.
- 391** **Eisenhauer N** (2022) *A walk in the office*. **Science** 377: 6611; <https://www.science.org/doi/10.1126/science.ade6972>.
- 390** Zanne AE, Flores-Moreno H, Powell JR, Cornwell WK, Dalling JW, ... **Eisenhauer N**, ..., & Zalamea P-C (2022) *Termite sensitivity to temperature affects global wood decay rates*. **Science** 377: 1440-1440; <https://www.science.org/doi/10.1126/science.abo3856>.
- 389** Mathieu J, Antunes AC, Barot S, Bonato Asato AE, Bartz MLC, Brown GG, Calderon-Sanou I, Decaëns T, Fonte SJ, Ganault P, Gauzens B, Gongalsky KB, Guerra CA, Hengl T, Lavelle P, Marichal R, Mehring H, Peña-Venegas CP, Castro D, Potapov A, Thébault E, Thuiller W, Witjes M, Zhang C, & **Eisenhauer N** (2022) *sOilFauna - a global synthesis effort on the drivers of soil macrofauna communities and functioning*. **Soil Organisms** 94: 111-126; <https://doi.org/10.25674/so94iss2id282>.
- 388** Jurburg S, **Eisenhauer N**, Buscot F, Chatzinotas A, Chaudhari N, Heintz-Buschart A, Kallies R, Küsel K, Litchman E, Macdonald C, Müller S, Reuben RC, da Rocha UN, Panagiotou G, Rillig MC, & Singh BK (2022) *Potential of microbiome-based solutions for agri-food systems*. **Nature Food** 3: 557–560; <https://www.nature.com/articles/s43016-022-00576-x>.
- 387** Guerra CA, Berdugo M, Eldridge DJ, **Eisenhauer N**, Singh BK, Cui H, Abades S, Alfaro FD, Bamigboye AR, Bastida F, Blanco-Pastor JL, de los Ríos A, Durán J, Grebenc T, Illán JG, Liu Y-R, Makhalanyane TP, Mamet S, Molina-Montenegro MA, Moreno JL, Mukherjee A, Nahberger TU, Peñaloza-Bojacá GF, Plaza C, Picó S, Verma JK, Rey A, Rodríguez A, Tedersoo L, Teixido AL, Torres-Díaz C, Trivedi P, Wang J, Wang L, Wang J, Zaady E, Zhou X, Zhou X-Q, & Delgado-Baquerizo

- M (2022) *Global hotspots for soil nature conservation*. **Nature** 610: 693–698; <https://www.nature.com/articles/s41586-022-05292-x>.
- 386** Phillips HRP, Cameron EK, & **Eisenhauer N** (2022) *Illuminating biodiversity changes in the “Black Box”*. **Research Ideas & Outcomes** 8: e87143; <https://riojournal.com/article/87143/>.
- 385** Zhou G, Lucas-Borja ME, **Eisenhauer N**, Eldridge DJ, Liu S, & Delgado-Baquerizo (2022) *Understorey biodiversity supports multiple ecosystem services in mature Mediterranean forests*. **Soil Biology & Biochemistry** 172: 108774; <https://doi.org/10.1016/j.soilbio.2022.108774>.
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**006 Eisenhauer N** and Scheu S (2008) *Earthworms as drivers of the competition between grasses and legumes.* **Soil Biology and Biochemistry** 40: 2650-2659.  
<https://doi.org/10.1016/j.soilbio.2008.07.010>. **Recommended by F1000.**

**005 Habekost M**, **Eisenhauer N**, Scheu S, Steinbeiss S, Weigelt A and Gleixner G (2008) *Seasonal changes in the soil microbial community in a grassland plant diversity gradient four years after establishment.* **Soil Biology and Biochemistry** 40: 2588-2595. <https://doi.org/10.1016/j.soilbio.2008.06.019>.

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## Books, book chapters, and other publications [32]

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- (X031)** Beylich A, Buscot F, **Eisenhauer N**, Hommel B, Höper H, Glante F, Grüneberg E, Nabel M, Puhlmann H, Roß-Nickoll M, Römbke J, Russell D, Scheu S, Tebbe C, Toschki A, Weiß L, Walter R, Weißbecker C (2022) *Eckpunktepapier zur Weiterentwicklung des bundesweiten Bodenbiodiversitätsmonitorings durch das Fachgremium „Monitoring der Bodenbiodiversität und -funktionen“*. **Bundesamt für Naturschutz**, [https://www.monitoringzentrum.de/sites/default/files/2023-01/Eckpunktepapier\\_FG\\_Bodenmonitoring\\_GFG\\_barrrierefrei\\_3\\_0.pdf](https://www.monitoringzentrum.de/sites/default/files/2023-01/Eckpunktepapier_FG_Bodenmonitoring_GFG_barrrierefrei_3_0.pdf).
- (X030)** Bonn A, **Eisenhauer N**, & Pereira H (2022) Jahrestagung der GfÖ 2023 in Leipzig. **Nachrichten der GfÖ**, Dezember 2022, 8.
- (X029)** Müller J, Scherer-Lorenzen M, Ammer C, **Eisenhauer N**, Seidel D, Schuldt B, Biedermann P, Schmitt T, Kuenzer C, Wegmann M, Cesarz S, Peters M, Feldhaar H, Steffan-Dewenter I, Claßen A, Bässler C, von Oheimb G, Fichtner A, Thorn S, Weisser W (2021) *BETA-FOR: Enhancing the structural diversity between patches for improving multidiversity and multifunctionality in production forests. Proposal for the first phase (2022-2026) of the DFG Research Unit FOR 5375/1*. Fabrikschleichach (DOI: 10.25972/OPUS-29084)
- (X028)** Pörtner HO, Scholes RJ, Agard J, Archer E, Arneith A, Bai X, Barnes D, Burrows M, Chan L, Cheung WL, Diamond S, Donatti C, Duarte C, **Eisenhauer N**, Foden W, Gasalla MA, Handa C, Hickler T, Hoegh-Guldberg O, Ichii K, Jacob

U, Insarov G, Kiessling W, Leadley P, Leemans R, Levin L, Lim M, Maharaj S, Managi S, Marquet PA, McElwee P, Midgley G, Oberdorff T, Obura D, Osman E, Pandit R, Pascual U, Pires APF, Popp A, Reyes-García V, Sankaran M, Settele J, Shin YJ, Sintayehu DW, Smith P, Steiner N, Strassburg B, Sukumar R, Trisos C, Val AL, Wu J, Aldrian E, Parmesan C, Pichs-Madruga R, Roberts DC, Rogers AD, Díaz S, Fischer M, Hashimoto S, Lavorel S, Wu N, Ngo HT (2021) *IPBES-IPCC co-sponsored workshop report synopsis on biodiversity and climate change*; **Zenodo**, DOI:10.5281/zenodo.4782538.

**(X027)** Pe'er G, Lakner S, Seppelt R, Bezák P, Bonn A, Concepción ED, Creutzig F, Daub C-H, Díaz M, Dieker P, Eisenhauer N, Hagedorn G, Hansjürgens B, Harrer-Puchner G, Herzon I, Hickler T, Jetzkowitz J, Kazakova Y, Kindlmann P, Kirchner M, Klein A-M, Linow S, Lomba Â, López-Bao JV, Metta M, Morales MB, Moreira F, Mupepele A-C, Navarro A, Oppermann R, Rac I, Röder N, Schäfer M, Sirami C, Streck C, Šumrada T, Tielbörger K, Underberg E, Wagener-Lohse G, & Baumann F (2020) The EU's Common Agriculture Policy and Sustainable Farming: A statement by scientists. **Zenodo**, <http://doi.org/10.5281/zenodo.4311314>.

**(X026)** Jochum M & Eisenhauer N (2020) *Biodiversität im Untergrund – Forschung trifft auf Jugend*. **Nachrichten der GfÖ** 50: 13-14.

**(X025)** FAO, ITPS, GSBI, SCBD and EC. 2020. *State of knowledge of soil biodiversity - Status, challenges and potentialities*, Report 2020. Rome, FAO. <https://doi.org/10.4060/cb1928en> (Eisenhauer N Coordinating Lead Author; Lead Author of *Chapter 2. Global diversity & distribution of soil biodiversity*; Contributing Author of *Chapter 4. Threats to soil biodiversity - global and regional trends*).

**(X024)** Phillips HRP, Cameron EK, Eisenhauer N (2020) *Earthworms of the world*. **Frontiers for Young Minds** 9: 547660, doi: 10.3389/frym.2021.547660.

**(X023)** Eisenhauer N & Wirth C (2020) *Die Facetten und Bedeutung der Biodiversität*. **Natur Magazin** 34: 4-7.

**(X022)** Eisenhauer N (2020) *Das Jena Experiment – Fragestellung, Ansatz, Erkenntnisse und Ausblick*. **Natur Magazin** 34: 8-9.

**(X021)** Jochum M & Eisenhauer N (2020) *How introduced earthworms alter ecosystems*. **Frontiers for Young Minds** 8: article 534345. doi: 10.3389/frym.2020.534345.



- (X020) Sünneemann M, Siebert J, **Eisenhauer N** (2020) *Double whammy for life in soil? The effects of drought and fertilizer use. **Frontiers for Young Minds** 8: article 547630, doi: 10.3389/frym.2020.547630.*
- (X019) Gottschall F, Cameron EK, Martins IS, Siebert J, **Eisenhauer N** (2020) *Can we save the beast by conserving the beauty? **Frontiers for Young Minds** 8: 547740. doi: 10.3389/frym.2020.547740.*
- (X018) Meyer S and **Eisenhauer N** (2020) *Artenverlust schmälert Ökosystemleistungen – Ökologische Experimente zeigen die Bedeutung von Artenvielfalt für Ökosystemleistungen. **Zoll+** 36: 64-67.*
- (X017) **Eisenhauer N** and Eisenhauer E (2020) *The “intestines of the soil”: the taxonomic and functional diversity of earthworms – a review for young ecologists. **EcoEvoRxiv**, [doi:10.32942/osf.io/tfm5y](https://doi.org/10.32942/osf.io/tfm5y).*
- (X016) **Eisenhauer N**, Bohan D, Dumbrell AJ (2019) *Mechanisms underlying the relationship between biodiversity and ecosystem function. Advances in Ecological Research, Volume 61, Academic Press Elsevier.*
- (X015) **Eisenhauer N** and Guerra CA (2019) *Mapa mundial de los nematodos del suelo. Investigación y Ciencia (spanish version of Scientific American and part of Springer Nature Group).*
- (X014) Gottschall F and **Eisenhauer N** (2019) *Der Blick unter den Tellerrand: Reicht es nur zu schützen, was wir sehen? **Gesellschaft für Biologische Systematik Newsletter** 36: 22-23.*
- (X013) **Eisenhauer N** and Vogel A (2018) *Artenvielfalt verbessert die Funktionsweise von Ökosystemen. **bioNachrichten**, Ausgabe: August 2018, 36-37.*
- (X012) Türke M and **Eisenhauer N** (2018) *Paradigmenwechsel: Von Klimakammern zu Biodiversitätskammern. **Nachrichten der GfÖ**, Juni 2018, 9-11.*
- (X011) **Eisenhauer N** (2018) *Artenverlust schmälert Ökosystemleistungen. **Ökologie & Landbau** 2|2018: 50-51.*
- (X010) Türke M, Feldmann R, Fürst B, Hartmann H, Herrmann M, Klotz S, Mathias G, Meldau S, Ottenbreit M, Reth S, Schädler M, Trogisch S, Buscot F, **Eisenhauer N** (2017) *Multitrophische Biodiversitätsmanipulation unter kontrollierten Umweltbedingungen im iDiv Ecotron. **17. Gumpensteiner Lysimetertagung** 2017: 107-114.*

- (X009) Cesarz S and Eisenhauer N (2016) *Oberirdisch-unterirdische Interaktionen. Acta Academiae Scientiarum* 15: 145-148.
- (X008) Kulmatiski A, Hines J, Eisenhauer N (2014) *Soil organism effects on grassland production and diversity*. In: Grasslands: Habitat Management, Impact of Plant Diversity and Conservation Strategies (Editors: Mariotte P and Kardol P), NOVA Publisher, New York.
- (X007) Eisenhauer N and Stefan Hotes (2012) *DAAD Science Tour zu Biodiversität und Klimawandel. Nachrichten der GfÖ*, Dezember 2012, 16-19.
- (X006) Eisenhauer N (2011) *Aboveground–belowground interactions in a changing world*. Habilitation thesis, Georg-August-University Göttingen, Germany.
- (X005) Asshoff R, Fricke A and Eisenhauer N (2010) *Regenwurm ist nicht gleich Regenwurm – Ein Experiment zur Verdeutlichung der unterschiedlichen Ökologie von Regenwürmern. Praxis der Naturwissenschaften Biologie in der Schule*.
- (X004) Eisenhauer N and Scheu S (2009) *Experimenting with earthworms in the field: The method and impacts of earthworms on the diversity-ecosystem functioning relationship. Berichte der Deutschen Bodenkundlichen Gesellschaft*, Tagungsbeitrag zu: Workshop Kommission III „Bodenökologie und Bodenbiologie“ der DBG; Titel der Tagung: Experimenting with earthworms (Trier), <http://www.dbges.de>.
- (X003) Eisenhauer N (2008) *Earthworms in a plant diversity gradient: Direct and indirect effects on plant competition and establishment*. PhD thesis (**summa cum laude**), Darmstadt University of Technology, Germany.
- (X002) Eisenhauer N and Scheu S (2005) *Invasion europäischer Lumbriciden in einen kanadischen Espenwald: Auswirkungen auf Bodenchemie, Mikroflora, Bodenmesofauna und Vegetation. Mitteilungen der Deutschen Bodenkundlichen Gesellschaft* 107: 7-8.
- (X001) Eisenhauer N (2005) *Invasion europäischer Lumbriciden in einen kanadischen Espenwald: Auswirkungen auf Vegetation, Bodenmesofauna, Mikroflora und Bodenchemie*. Diploma thesis (**with distinction**), Darmstadt University of Technology, Germany.

## Grants

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| 2023 | PI of the proposal “Internationale wissenschaftliche Veranstaltung: „52. Tagung der Gesellschaft für Ökologie (GfÖ): “Die Zukunft der |
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- Biodiversität - Grenzen von Taxa, Bereiche und Skalen überwinden*“, funded by the German Research Foundation, Ei 862/38-1 (30,000 €).
- 2023 PI in the project SP7 - *The role of tree-nematode interactions in the acclimation and adaptation of trees* in the DFG Research Unit PhytOakmeter: Using clonal oak phytometers to unravel acclimation and adaptation mechanisms of long-lived forest tree holobionts to ecological variations and climate change, funded by the German Research Foundation, Ei 862/37-1 (with Dr. Simone Cesarz and Dr. Stephanie Jurburg; ~195,000 €; first funding phase)
- 2022 PI in the project *Functional diversity of soil organisms* in the International Research Training Group TreeDì *Tree Diversity Interactions: The role of tree-tree interactions in local neighbourhoods in Chinese subtropical forests* (with Dr. Simone Cesarz; German Research Foundation; ~260,000 €; second funding phase)
- 2022 PI in the Research Unit *Enhancing the structural diversity – BETA-FOR* (FOR 5375), Subproject 04: *Soil biodiversity and functioning*, funded by the German Research Foundation, Ei 862/36-1 (48,200 €; with Simone Cesarz)
- 2022 PI in the Research Unit *Enhancing the structural diversity – BETA-FOR* (FOR 5375), *Subproject Z: Scientific coordination, synthesis, site and data management*, funded by the German Research Foundation, Ei 862/35-1 (133,446 €; with Christian Ammer, Jörg Müller, Michael Scherer-Lorenzen)
- 2021 sDiv workshop at German Centre for Integrative Biodiversity Research (iDiv); sOilFauna: How human activities impact soil macrofauna communities and how it relates to primary productivity? A global synthesis. Workshop Organizer, with Dr. Jérôme Mathieu (~40,000 €)
- 2021 PI in the German Centre for Integrative Biodiversity Research (iDiv) (3 years); with other 24 PIs, funded by the German Research Foundation (FTZ 118; 34,158,300 €)

- 2021 PI of the project *Illuminating biodiversity changes in the 'Black Box'*, funded by the German Research Foundation, Ei 862/31-1 (268,449 €; 3-year postdoc position)
- 2021 **Gottfried Wilhelm Leibniz Prize** 2021 by the German Research Foundation (2,500,000 €)
- 2020 Co-PI in the project *Detection and attribution of changes in soil moisture and temperature as affected by plant diversity and climate*, funded by the iDiv Flexpool (~166,400 €; lead PI: Joachim Denzler, other co-PIs involved: Maha Shadaydeh, Anne Ebeling, Yuanyuan Huang; 3-year PhD position)
- 2020 Co-PI in the project *Diversity and scenario modelling of molecular markers of plant pathogens in plant, litter and soil metagenomes*, funded by the iDiv Flexpool (~168,000 €; lead PI: François Buscot; other co-PIs involved: Anna Heintz-Buschart, Carlos Guerra, Kirsten Küsel; 2-year postdoc position)
- 2020 Co-PI in the project *Using the new functional framework for root traits (Root Economics Space) to predict soil-borne fungal communities in grasslands (RESfun)*, funded by the iDiv Flexpool (~167,000 €; lead PIs: Alexandra Weigelt, Liesje Mommer; other co-PIs involved; 4-year PhD position)
- 2020 PI in the German Centre for Integrative Biodiversity Research (iDiv) (1 year); with other 24 PIs, funded by the German Research Foundation (FTZ 118, 11,110,000 €)
- 2019 PI in the project *Microbial diversity-ecosystem function relationships across environmental gradients*, funded by the German Research Foundation, Ei 862/27-1 (40,434 €; with Anna Heintz-Buschart, François Buscot, Kirsten Küsel & Carl-Eric Wegner; total amount funded: 202,170 €)
- 2019 Co-PI in the Jena Experiment (FOR 5000), *Subproject 06: Multi-trophic energy fluxes in soil food webs along plant diversity-productivity gradients*, funded by the German Research Foundation, Ei 862/26-1 (64,260 €; with Ulrich Brose & Stefan Scheu)

- 2019 PI in the Jena Experiment (FOR 5000), *Subproject Z: Central Coordination*, funded by the German Research Foundation, Ei 862/25-1 (470,639 €; with Anne Ebeling, Gerd Gleixner, Christiane Roscher & Alexandra Weigelt)
- 2019 PI in the Jena Experiment (FOR 5000), *Subproject 04: Plant diversity, plant history, and soil history effects on the temporal dynamics of plant and soil activity*, funded by the German Research Foundation, Ei 862/24-1 (117,540 €; with Jes Hines & Christian Wirth)
- 2019 **Speaker of the Jena Experiment (FOR 5000)**, *Coordination funds*, funded by the German Research Foundation, Ei 862/23-1 (288,950 €)
- 2019 Co-PI in the project *Illuminating the dark side of restoration: Soil food web reassembly in regenerating forests* (with Dr. Andrew Barnes and others), funded by The Marsden Fund Council, New Zealand, Proposal No.: 18-UOW-087; Contract No.(s): UOW1803 (\$ 300,000 for 2019-2022)
- 2019 PI of the project *Invasive earthworm effects on plant functional traits and diversity*; funded by the German Research Foundation, Ei 862/18-1 (234,926 €)
- 2018 PI in the project *Global soil biodiversity and ecosystem function dynamics* in the Postdoc Flexible Pool Call 2018 of the German Centre for Integrative Biodiversity Research (iDiv); ~160,000 € for a 2-year postdoc position)
- 2018 Co-PI in the project *Global soil biodiversity and ecosystem function dynamics* in the Fast-track Flexible Pool Call 2018 of the German Centre for Integrative Biodiversity Research (iDiv); 7,500 €)
- 2018 PI in the project *Functional diversity of soil organisms* in the International Research Training Group TreeDi *Tree Diversity Interactions: The role of tree-tree interactions in local neighbourhoods in Chinese subtropical forests* (with Dr. Simone Cesarz; German Research Foundation; 260,045 €; first funding phase)

- 2016 Co-PI in the project *Soil microbial community assessment with portable mid-infrared and visible near-infrared spectroscopy* (PI: Prof. Michael Vohland; FlexPool funding in the German Centre for Integrative Biodiversity Research (iDiv); ~110,000 €)
- 2016 Experimental infrastructure funding for the MyDiv experiment; funded by German Centre for Integrative Biodiversity Research ((iDiv); ~30,000 €)
- 2016 Experimental infrastructure funding for the iDiv Ecotron facility; funded by the German Centre for Integrative Biodiversity Research ((iDiv); ~93,000 €)
- 2016 PI in the German Centre for Integrative Biodiversity Research (iDiv) (4 years); with other 24 PIs, funded by the German Research Foundation (FTZ 118, ~35,500,000 €)
- 2016 sDiv workshop at German Centre for Integrative Biodiversity Research (iDiv) and position for synthesis postdoc (2 years), *sWorm*, Workshop Organizer, with Dr. Erin Cameron (~165,000 €)
- 2016 **ERC Starting Grant** funded by the European Research Council, Ecosystem responses to exotic earthworm invasion in northern North American forests (~1,500,000 €)
- 2015 PI in the Jena Experiment (FOR 1451), *Subproject Z: Coordination*, funded by the German Research Foundation, Ei 862/5-3 (196,929 €)
- 2015 **Speaker of the Jena Experiment (FOR 1451)**, *Coordination funds*, funded by the German Research Foundation, Ei 862/10-1 (136,569 €)
- 2015 PI in the Jena Experiment (FOR 1451), *Subproject 6: Consumer community structure and ecosystem functioning*, funded by the German Research Foundation, Ei 862/12-1 (97,310 €)
- 2015 PI in the Jena Experiment (FOR 1451), *Subproject 7: Context-dependence of biodiversity effects and real-world perspective*, funded by the German Research Foundation, Ei 862/13-1 (24,237 €)



- 2015 Postdoc funding (1 year) for scientific coordination of the Ecotron facility; funded by German Centre for Integrative Biodiversity Research (iDiv); ~64,000 €)
- 2014 **Heinz Maier Leibnitz Prize** by the German Research Foundation (20,000 €)
- 2014 sDiv workshop at the German Centre for Integrative Biodiversity Research (iDiv) *Biodiversity Changes*, Workshop Organizer, with Prof. Dr. Forest Isbell (travel funds; ~20,000 €)
- 2014 PI in *Tracing the spread of European earthworms into North America using molecular markers and field experiments* with Dr. Ina Schaefer; funded by the German Research Foundation, Ei 862/9-1 (~60,000 €)
- 2013 Postdoc funding (1 year) for synthesis work on the consequences of flood on plant communities differing in diversity; funded by the German Centre for Integrative Biodiversity Research (iDiv); postdoc funding plus travel funds; ~68,000 €)
- 2013 sDiv workshop at the German Centre for Integrative Biodiversity Research (iDiv), *Plant diversity effects on ecosystem resilience and recovery from perturbations*, PI with Dr. Forest Isbell (travel funds plus 9 months postdoc funding; ~66,000 €)
- 2013 PI in the Jena Experiment, *Subproject Z: Coordination*, funded by the German Research Foundation, Ei 862/5-2 (1,579,655 €)
- 2013 PI in the Jena Experiment, *Subproject 2: Plant–soil fauna interactions*, funded by the German Research Foundation, Ei 862/3-2 (155,453 €); Co-PI with Prof. S. Scheu (~150,000 €)
- 2012 **Emmy Noether group** funded by the German Science Foundation, Ei 862/2, *Aboveground–belowground interactions drive the relationship between plant diversity and ecosystem function* (877,440 €; for 5 years, 3 PhDs)
- 2011 National Science Foundation, USA, *The complexity of global change- interactive effects of warming, water availability, CO<sub>2</sub> and N on grassland ecosystem function* (US\$ 950,839; with Prof. P.B. Reich, Prof. Dr. S. Hobbie, Prof. Dr. R. Montgomery, Dr. R. Rich)

- 2011 Department of Energy, USA, *Climate change impacts at the temperate-boreal ecotone: interactions between warming and precipitation*, (~ US\$ 2,500,000; with Prof. P.B. Reich, Prof. Dr. S. Hobbie, Prof. Dr. R. Montgomery, Dr. R. Rich)
- 2011 German Academic Exchange Foundation, Travel expenses for the Annual Meeting of the Ecological Society of America in Austin, TX, USA (~800 €)
- 2011 Co-PI (with Dr. Alexandre Jousset) in *The role of plant diversity for the promotion of bacterial communities responsible for soil suppressiveness against phytopathogens* (JO 935/2), funded by the German Research Foundation (168,600 €)
- 2011 Co-PI (with Dr. Olaf Butenschoen) in *A biodiversity approach to improve bioremediation strategies for PAH contaminated soils*, funded by the Federal Ministry of Education and Research, Germany (21,312 €)
- 2010 Post-Doc Scholarship by the German Research Foundation, Ei 862/1 (~100,000 €)
- 2010 PI in the Jena Experiment (with Prof. Dr. Stefan Scheu), *SP4: Plant – soil fauna interactions*, funded by the German Research Foundation (~280,000 €)
- 2004 Scholarship by the German Academic Exchange Foundation (~3,000 €)

### Visiting scientists

- 2023 Kevin Mueller (Cleveland State University, USA; 6 weeks)
- 2022 Takehiro Sasaki (Graduate School of Environment and Information Sciences, Yokohama National University, Japan; 3 weeks)
- 2022 Fernando Maestre (University of Alicante, Alicante, Spain, 1 month); funded by the sDiv sabbatical program
- 2022 Marcel Ciobanu (Institute of Biological Research, Cluj-Napoca, Romania; 3 weeks)
- 2021 Marcel Ciobanu (Institute of Biological Research, Cluj-Napoca, Romania; 1 month)

- 2021 Jamie Leonard (Stanford University, CA, USA; 3 months)
- 2021 – Rine Christopher Reuben (Jashore University of Science and Technology: Jashore, Kulna, Bangladesh; 2 years); funded by the Alexander von Humboldt Foundation
- 2020 – 2021 Tianmiao Liu (Harbin Institute of Technology (HIT), China; 12 months); funded by China Scholarship Council (CSC)
- 2020 Marcel Ciobanu (Institute of Biological Research, Cluj-Napoca, Romania; 2 months)
- 2019 Marcel Ciobanu (Institute of Biological Research, Cluj-Napoca, Romania; 1 month)
- 2019 Catriona Macdonald (Hawkesbury Institute for the Environment, Western Sydney University, Penrith, Australia, 4 months)
- 2019 Brajesh Singh (Hawkesbury Institute for the Environment, Western Sydney University, Penrith, Australia, 4 months); funded by the Alexander von Humboldt Foundation
- 2019 – 2021 Antonio Archidona-Yuste (Institute for Sustainable Agriculture, CSIC, Córdoba, Spain; 2 years); funded by the Alexander von Humboldt Foundation
- 2019 Fernando Maestre (University of Alicante, Alicante, Spain, 1 month); funded by the sDiv sabbatical program
- 2019 George Brown (Embrapa Soja, C.P., Brazil, 1 month); funded by the ERC
- 2019 Concepción Cano Díaz (Universidad Rey Juan Carlos Madrid, Spain, 3 months); funded by the DAAD
- 2018 Fernando Maestre (Universidad Rey Juan Carlos Madrid, Spain, 1 month); funded by the sDiv sabbatical program
- 2018 – 2019 Darren Giling (Friedrich Schiller University Jena, Germany, 12 months)
- 2017 Tao Liu (University of the Chinese Academy of Sciences, China, 12 months)
- 2017 Cameron Wagg (Department of Evolutionary Biology and Environmental Studies, University of Zürich, Switzerland, 1 month)
- 2017 Erin Cameron (Metapopulation Research Centre, Department of Biosciences, University of Helsinki, Finland and Center for

- Macroecology, Evolution and Climate Change, University of Copenhagen, Denmark; 6 months).
- 2016 Alexandra Wright (Fashion Institute of Technology, Manhattan, USA; 1 month).
- 2016 Marcel Ciobanu (Institute of Biological Research, Cluj-Napoca, Romania; two times for 1.5 months each).
- 2015 Jara Domínguez (Instituto de Recursos Naturales y Agrobiología de Sevilla (IRNAS), Spain): Spatial relationships between trees and soil communities (4 months).
- 2015 Marcel Ciobanu (Institute of Biological Research, Cluj-Napoca, Romania): *Soil nematodes in plant-soil feedback effects* (1 month).
- 2014 – 2015 Gabriela Martucci do Couto (Universidade Federal Rural de Pernambuco, Recife, Brazil): *Soil biodiversity effects on ecosystem functioning* (12 months). Postdoc scholarship by the Brazilian Research Foundation.
- 2014 Perla Mellado (MPI for Biogeochemistry, Jena, Germany): *Linking plant diversity effects on soil processes by shifts in microbial communities* (2 months).
- 2014 Marcel Ciobanu (Institute of Biological Research, Cluj-Napoca, Romania): *Plant diversity effects on free-living soil nematodes* (3 months).
- 2014 Eliška Kuřáková (Department of Botany, Faculty of Science, Charles University Prague, Czech Republic): *Soil feedback effects as modified by decomposers* (2 months).
- 2013 – 2015 Mengyun Liu (South China Botanical Garden, the Chinese Academy of Sciences, Guangzhou, China): *Tree and decomposer diversity effects on soil carbon dynamics*. Funded by the University of Chinese Academy of Sciences.
- 2013 Marcel Ciobanu (Institute of Biological Research, Cluj-Napoca, Romania): *Impact of summer drought and plant diversity on free-living soil nematodes* (3 months). Funded by ExpeER.
- 2013 Ademir S. F. Araújo (Federal University of Piau, Agricultural Science Center, Soil Quality Laboratory, Teresina, Brazil): *Impact*

*of land degradation and restoration on soil organisms* (1 week).  
Funded by CNPq Brazil.

2012 – 2013 Gabriela Martucci do Couto (Universidade Federal Rural de Pernambuco, Recife, Brazil): *Soil microbial properties in different land renaturation treatments in Brazilian riparian ecosystems* (7 months). Funded by the Brazilian Sandwich Program.

### **Supervised postdocs and senior scientists (total number: 30)**

Dr. Gerrit Angst (2022-ongoing), Dr. Andrew Barnes (2016-2018), Dr. Léa Beaumelle (2017-2019), Dr. Rémy Beugnon (2022-ongoing), Dr. Simone Cesarz (2012-ongoing), Dr. Dylan Craven (2013-2018), Dr. Peter Dietrich (2021-2022), Dr. Anne Ebeling (2012-2014), Dr. Olga Ferlian (2014-ongoing), Dr. Pierre Ganault (2022-ongoing), Dr. Darren Giling (2016-2019), Dr. Carlos António Guerra (2018-ongoing), Dr. Jes Hines (2013-ongoing), Dr. Yuanyuan Huang (2020-ongoing), Dr. Annette Jesch (2019-2021), Dr. Malte Jochum (2018-2023), Dr. Stephanie Jurburg (2018-2022), Dr. Shan Luo (2021-ongoing), Anna-Maria Madaj (2021-ongoing), Dr. Helen Phillips (2016-2020), Dr. Rine Christopher Reuben (2021-2023), Dr. Christian Ristok (2021-ongoing), Dr. Anja Schmidt (2018-2020), Dr. Madhav Prakash Thakur (2016-2017), Dr. Lise Thouvenot (2017-ongoing), Dr. Manfred Türke (2014-2018), Dr. Alexandra Wright (2016), Dr. Anja Vogel (2016-2019), Dr. Cameron Wagg (2013-2016), Dr. Guiyao Zhou (2021-ongoing)

### **Supervised theses**



#### ***Supervisor / co-supervisor of 16 PhD theses***

2022 – Rike Schwarz: *Effects of forest spatial heterogeneity on soil biodiversity and functioning* (DFG; Leipzig University)

2021 – Romy Zeiss: *Prioritäten für den effektiven Schutz von Bodenbiodiversität und Bodenfunktionalität in Deutschland* (DBU; Leipzig University)

- 2021 – Huimin Yi: *Tree diversity effects on multitrophic energy fluxes* (Leipzig University)
- 2021 – Elisabeth Bönisch: *The role of mycorrhizal fungi in nutrient dynamics and plant-soil interactions* (Leipzig University)
- 2021 – Xiaoli Yang: *Effects of climate change and land use on soil nematode communities* (Leipzig University; with Martin Schädler)
- 2020 – Ana Elizabeth Bonato Asato: *Plant diversity, plant history, and soil history effects on the temporal dynamics of plant and soil activity* (Leipzig University)
- 2019 – Marie Sünemann: *Auswirkungen von Landnutzungseffekten auf die Funktionsweise von Böden im Klimawandel* (DBU; Leipzig University)
- 2018 – Guillaume Patoine: *Global patterns in soil microbial biomass* (Leipzig University)
- 2018 – 2021 Rémy Beugnon: *Functional diversity of soil organisms*, In: *Tree Diversity Interactions: The role of tree-tree interactions in local neighbourhoods in Chinese subtropical forests* (Leipzig University, with Simone Cesarz)
- 2017 – Christopher Hutengs: *Soil microbial community assessment with portable mid-infrared and visible to near-infrared spectroscopy* (Leipzig University, with Michael Vohland)
- 2016 – 2022 Felix Gottschall: *Tree diversity effects on the spatial and temporal variability of belowground processes* (Leipzig University)
- 2015 – 2022 Christian Ristok: *Plant and soil biodiversity effects on the plant metabolome* (DBU; Jena/Leipzig, with Nicole van Dam)
- 2015 – 2019 Rui Yin: *Effects of climate change and land use on the structure and function of soil fauna communities* (Leipzig University; with Martin Schädler)
- 2014 – 2020 Julia Siebert: *Global change effects on the activity and functional diversity of soil organisms* (Leipzig University; **awarded by Leipzig University: “Prize for outstanding PhD thesis”**)
- 2014 – 2018 Andreas Klein: *Tracing the spread of European earthworms into North America using molecular markers and field experiments* (Göttingen/Leipzig, with Ina Schaefer)



- 2013 – 2017 Katja Steinauer: *The role of plant traits in the relationship between plant diversity and the performance of soil organisms* (Leipzig University)
- 2013 – 2018 Nathaly Guerrero-Ramírez: *Good polycultures or bad monocultures – which mechanisms are driven positive biodiversity–ecosystem functioning relationships?* (Leipzig University)
- 2012 – 2016 Madhav Thakur: *Does global change intensify plant diversity effects on soil biota and subsequent feedback effects?* (Leipzig University)
- 2011 – 2015 Ellen Latz: *Effect of plant diversity on soil bacterial communities responsible for soil suppressiveness against phytopathogens* (Georg August University Göttingen, with Alexandre Jousset)
- 2010 – 2020 Tanja Strecker: *Plant – soil fauna interactions in a plant diversity gradient: the functional composition of soil food webs* (Georg August University Göttingen, with Stefan Scheu)



***Supervisor of 82 diploma theses, master theses, bachelor theses, research practicals etc.***

- 2022 – 2023 Paul Liebel: *The effect of simulated climate change on agricultural yield and annual net biomass production in agroecosystems*
- 2022 Amelie Hauer: *The effect of tree diversity and mycorrhizal type on soil microbial communities*
- 2021 – 2022 Hui Dong: *Seasonal plant diversity effects on soil temperature in a long-term experiment*
- 2021 – 2022 Linnea Smith: *Effects of interacting biotic and abiotic stress on the wheat volatilome*
- 2021 – 2022 Laura-Fiona Heptner: *Underground inequity – impacts of resource distribution on soil ecosystem functioning*
- 2021 – 2022 Merlin Helle: *Joint impacts of climate and predation on experimental litter-mesofauna communities*

- 2021 – 2022 Lena Urban: *The effects of climate change, land use, and disturbance on soil fauna communities*
- 2021 – 2022 Rike Lena Schwarz: *Effects of invasive earthworms on plant functional traits and biotic interactions*
- 2021 – 2022 Friedrich Arne Scherzinger: *Multifunctionality of agroecosystems in Mid-Germany under land-use and climate change – an ecological-economic assessment*
- 2021 – 2022 Jan Austen: *Leaf herbivory and predation rates in a tree diversity experiment with contrasting mycorrhizal types*
- 2021 Roberto Rebollo Hernandez: *Estimating energy fluxes in a tree-diversity experiment with contrasting types of mycorrhizae*
- 2021 Kristian Schufft: *Influence of climate legacy on European Collembola species richness*
- 2021 Jule Koch: *Effects of deforestation on the earthworm diversity of Brazil*
- 2021 Daniel Behrends: *Landscape effects on soil microbe diversity*
- 2021 Jessica Dahlke: *Distribution and data of earthworm diversity in Germany*
- 2021 Therese Ziegler: *Effects of nutrient enrichment and top predator size structure on energy flux in a marine benthic community*
- 2020 – 2021 Henriette Christel: *Tree species identity and tree-tree interaction effects on soil microbial biomass and basal respiration*
- 2019 – 2021 Jannis Mirko Beyer: *The impact of root volatile blends on nematode host choice in aboveground-belowground interactions*
- 2020 – 2021 Romy Zeiss: *How (well) does European policy protect soil organisms? Challenges of protecting European belowground biodiversity beyond productive systems*
- 2019 – 2021 Johannes Köhler: *Invasive ecosystem engineers – Impacts of exotic earthworms on plant community composition, diversity, and traits in North American ecosystems*
- 2019 – 2020 Christina Alt: *Belowground ecosystems in a changing environment – Soil microorganisms and soil structure under different land-use strategies and climate change*

- 2019 – 2020 Georg Hähn: *Litter quality and tree species richness effects on litter decomposition in subtropical forest*
- 2019 – 2020 Juliane Bormann: *Effects of aboveground invertebrate decline on soil food webs*
- 2019 – 2020 Sophia Findeisen: *The effects of invasive earthworms on belowground invertebrate communities and ecosystem functioning in North American forest ecosystems*
- 2019 – 2020 Lotte Horn: *Impacts of invasive earthworms on plant communities in North American forest ecosystems*
- 2019 Daniel Kähl: *Einfluss von Klimawandel und Landnutzung auf Spinnen*
- 2019 Selina Mehnert: *Bodenqualitäts- und Klimaeffekte auf Bodenökosystemfunktionen – Entzerrung mit Hilfe eines Phytometers*
- 2019 Romy Zeiss: *Impacts of earthworm invasion on aboveground invertebrate communities in North American forest ecosystems*
- 2019 Sabine Fürst: *Effects of aridity and herbivory on soil microbial properties in global drylands*
- 2019 Friederike Wölke: *Effects of aridity, herbivory, and plant communities on soil microbial properties in global drylands*
- 2018 – 2021 Jannis Beyer: *Attraction of soil nematodes by plant volatiles in the rhizosphere*
- 2018 – 2019 Esther-Marie Lintzel: *Effects of arbuscular mycorrhizal fungi and Trichoderma on plant-herbivore interactions on different maize genotypes*
- 2018 – 2019 Julia Kostin: *Land use and climate change effects on the stability of soil functions*
- 2017 – 2018 Till Enrique Newiger-Dous: *Tree diversity effects on decomposition and links to the functional diversity of soil microorganisms*
- 2017 – 2018 Sophie Davids: *Tree diversity effects on the functional diversity of soil microorganisms*
- 2017 – 2018 Anna-Lisa Schween: *Plant diversity and drought effects on plant phenology*

- 2017 – 2018 Manuela von Malotki: *Effects of invasive earthworms on Collembola populations and traits*
- 2017 Karl Andrzejczek: *Der Einfluss der Baumhöhe auf die Dichte und Zusammensetzung von Nematoden in den Baumkronen von Eichen und Eschen des Leipziger Auwaldes*
- 2017 Domenica Reichert: *Anwendung von Schneckenkot als biologischer Pflanzenschutz vor Herbivoren im Feld*
- 2017 – 2018 Marie Sünemann: *The effects of drought and nutrient addition on the activity and functional diversity of soil organisms*
- 2017 Justus Hennecke: *Plant invasions: experimental test of the enemy release hypothesis*
- 2017 Lilith Zoe Brüning: *Effects of management and habitat heterogeneity on amphibian communities in agroforestry systems in Colombia*
- 2017 – 2018 Tom Künne: *Effects of exotic earthworms on tree herbivory in two aspen species*
- 2016 – 2017 Vera Quast: *The role of mutualists in plant co-existence*
- 2016 Sascha Spalek: *Schneckenkot als biologischer Pflanzenschutz vor Herbivoren*
- 2016 – 2018 Guillaume Patoine: *Tree diversity effects on soil animal communities*
- 2015 – 2016 Inés Martin: *Interactive effects of warming, drought, CO<sub>2</sub>, and N deposition on soil communities*
- 2015 – 2016 Maria Feustel: *Ausbreitung von Hornmilben (Oribatida) durch Schnecken im Auwald*
- 2015 – 2016 Katharina Stolze: *Einfluss von anözischen Regenwürmern auf mikrobielle Gemeinschaften in der Drilosphäre und hydrophobe Eigenschaften der Gangwände*
- 2015 – 2016 Peter Dietrich: *Underlying mechanisms of deteriorating plant monocultures over time*
- 2015 – 2016 Benjamin Schwarz: *Effects of warming on soil food web structure*
- 2015 Tom Künne: *Temperature and predation effects on the interaction between two Collembola species*

- 2014 – 2015 Anne Helling: *How does decomposer diversity affect mass loss of standardized root litter?*
- 2014 Annika Eva Schulz: *Comparing different nematode extraction techniques*
- 2014 Nicolas Philip Betsche: *Side effects of mustard solution for earthworm extraction on plant competition*
- 2014 Annabell Richter: *Plant diversity and soil animal effects on soil microbial communities and functions*
- 2013 – 2015 Susann Pabst: *The effect of elevated CO<sub>2</sub> and temperature on soil biota and the success of native vs invasive plants*
- 2013 – 2014 Daniela Wirsch: *Optimizing the bait lamina method*
- 2013 – 2015 Daniela Wagner: *Does plant diversity buffer effects of flooding on soil nematode communities?*
- 2013 Benjamin Schwarz: *Tree diversity and identity effects on earthworm communities*
- 2013 – 2014 Saskia Rennoch: *Effects of soil food web complexity on plant community composition and productivity*
- 2013 – 2014 Julia Siebert: *Effects of elevated temperature and altered precipitation regimes on soil food web structure*
- 2013 Julia Friese: *Litter decomposition as affected by the functional diversity of trees and decomposers*
- 2013 Ariane Zander: *Getting to the bottom: how deep go plant diversity effects on soil microorganisms?*
- 2013 Kristin Wagner: *Efficiency of different earthworm extraction methods*
- 2012 – 2014 Josephine Grenzer: *Collembola identity and diversity effects on soil microbial communities and ecosystem multifunctionality*
- 2012 – 2013 Katja Steinauer: *Interactive effects of warming and plant diversity on soil microbial community structure and functions*
- 2012 Yasemin Günay: *Transgressive overyielding of soil microbial biomass in a grassland plant diversity gradient*
- 2012 Katja Steinauer: *Effects of N deposition on soil organisms and functions in two deciduous forests*

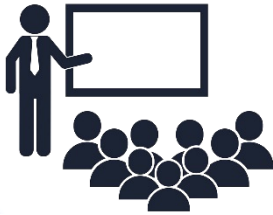
- 2010 Wiebke Schulz: *Influence of biodiversity and resource complexity on the invasibility of bacterial communities*
- 2010 Karolin Thomisch: *Struktur des Bodennahrungsnetzes in einem Pflanzendiversitätsgradienten*
- 2009 – 2010 Florian Andreas Schwarzmüller: *Dynamic stability and interaction strengths in soil food-web motifs*
- 2009 – 2010 Ellen Lätz: *Correlation between plant diversity and soil suppressiveness*
- 2009 Johanna Brenner: *Einfluss von Pflanzendiversität auf Abundanzen, Diversität und zeitliche Stabilität der Bodenmakrofauna einer experimentell angelegten Graslandgesellschaft*
- 2009 Stefan Radsick: *Haben Regenwürmer nährstoffreiche Nahrungsquellen? Der Fraß an Pflanzensamen und Keimlingen*
- 2008 Matthias Klier: *Nematoden in einem Pflanzendiversitätsgradienten: Einfluss auf Mikroorganismen und Pflanzenwachstum*
- 2008 Felix Schonert: *Einfluss von Pflanzendiversität auf die Bodenfauna einer experimentell angelegten Graslandgemeinschaft (**awarded by the state of Hesse: „Best teachers‘ thesis in 2008“**)*
- 2008 Svenja Gass: *Einfluss von Pflanzendiversität und funktioneller Identität auf Nematodengemeinschaften*
- 2007 – 2008 Daniela Straube: *Nonlinearity of effects of invasive ecosystem engineers on abiotic soil properties and soil biota*
- 2007 Christiane Schmidt: *Einfluss von funktionellen Pflanzengruppen und ausgesäter Diversität, sowie Insektizidapplikation auf die Myriapodagruppen Chilopoda und Symphyla*
- 2007 Daniela Straube: *Efficiency of two widespread non-destructive extraction methods under dry soil conditions for different ecological earthworm groups*
- 2006 – 2008 Volker Hörsch: *Wechselwirkungen zwischen Zersettern (*Lumbricidae*: *Aporrectodea caliginosa* und *Lumbricus terrestris*) und phytopathogenen Pilzen (*Fusarium graminearum*): Einfluss*



auf das Wachstum und den Befall von Weizen (*Triticum aestivum*)  
durch Pflanzenfresser (*Rhopalosiphum padi*)

2006 – 2007 Martin Schuy: *Direkte und indirekte Wirkung von Regenwürmern  
auf die Keimung von Pflanzensamen*

## Organized sessions / workshops



**Organizer / chair of 34 conferences, sessions, workshops  
etc.**

- 2023** ▶ Organization of the *On-Site Evaluation of the Jena Experiment*, June 2023, Jena, Germany (with Anne Ebeling).
- 2023** ▶ Organization of the sDiv workshop *sOilFauna II*, May 2023, Leipzig, Germany (with Jérôme Mathieu).
- 2023** ▶ Organization of the *Jena Experiment Retreat*, April 2023, Jena, Germany (with Anne Ebeling).
- 2023** ▶ Organization of the *Proposal Writing Retreat of the Jena Experiment*, February 2023, Leipzig, Germany.
- 2022** ▶ Co-organization of the online workshop *How to decompose*, December 2022, online.
- 2022** ▶ Organization of the *Jena Experiment Retreat*, November 2022, Leipzig, Germany.
- 2022** ▶ *MyDiv Workshop*, July 2022, Leipzig, Germany (with Olga Ferlian).
- 2022** ▶ *Soil biodiversity and function scenarios*. Session at the World Biodiversity Forum 2022, June 2022, Davos, Switzerland (with Carlos Guerra & Anton Potapov).
- 2022** ▶ Member of the organization committee of the international conference *Frontiers in experimental research on changing environments*, June 2022, Leipzig, Germany.
- 2022** ▶ Organization of the sDiv workshop *sOilFauna I*, May 2022, Leipzig, Germany (with Jérôme Mathieu).

- 2022** ► Organization of the *Jena Experiment Retreat*, March 2022, Bad Hersfeld, Germany (with Anne Ebeling).
- 2021** ► Organization of the *Jena Experiment Retreat*, October 2021, Jena, Germany (with Anne Ebeling).
- 2021** ► Organization of the *Jena Experiment Retreat*, March 2021, Jena, Germany (with Anne Ebeling, online).
- 2021** ► Member of the Executive Defense Committee of the evaluation of iDiv's third funding phase, March 2021 (online).
- 2020** ► Organization of the *Jena Experiment Retreat*, October 2020, Jena, Germany (with Anne Ebeling).
- 2019** ► Head of the iDiv Annual Conference, Leipzig, Germany (with Rebecca Thier-Lange and the organizing committee).
- 2019** ► Organization of the on-site review of the proposed DFG Research Unit in the Jena Experiment *Biotic interactions, community assembly, and eco-evolutionary dynamics as drivers of long-term biodiversity–ecosystem functioning relationships*, Jena & Dornburg, Germany (with Anne Ebeling & Kathrin Greyer).
- 2018** ► Organization of the workshop *From predictive modelling to global scale monitoring of soil biodiversity and ecosystem function dynamics*, Leipzig, Germany (with Carlos Guerra).
- 2017** ► Organization of the *iDiv Summer School on Synthesizing and modelling biodiversity data*, Leipzig, Germany.
- 2017** ► Organization of the workshop *sWORM - A global soil biodiversity database and its application to data synthesis and theory development*, Leipzig, Germany.
- 2017** ► Organization of the workshop *Community assembly in BEF experiments*, Leipzig, Germany.
- 2017** ► Organization of the workshop *The Future of Biodiversity–Ecosystem Functioning Research*, Jena, Germany.
- 2017** ► Organization of the Symposium *15 Years of the Jena Experiment: the Past, the Present, and the Future*, Jena, Germany.

- 2015** ► Organization of the on-site review of the Research Unit of the Jena Experiment (FOR 1451), Jena, Germany.
- 2015** ► Organization of the session *Illuminating the black box: causes, consequences, and capture of interactions in soil* at the Annual Meeting of the GfÖ (Gesellschaft für Ökologie), Göttingen, Germany.
- 2014** ► Organization of the sDiv workshop *Biodiversity Changes* in Leipzig, Germany (with Forest Isbell).
- 2014** ► Organization of the sDiv workshop *Plant diversity effects on ecosystem resistance to and recovery from perturbations – workshop II* in Leipzig, Germany (with Dylan Craven and Forest Isbell).
- 2014** ► Organization of the session *Novel Soils: Aboveground-belowground interactions in a changing world* at the Annual meeting of the GfÖ (Gesellschaft für Ökologie), Hildesheim, Germany.
- 2014** ► Organization of the ‘*Network*’ workshop in Jena, Germany (with Jes Hines and Wolfgang Weisser).
- 2013** ► Organization of the sDiv workshop *Plant diversity effects on ecosystem resistance to and recovery from perturbations* in Leipzig, Germany (with Forest Isbell).
- 2013** ► Organization of the session *Microorganisms in biodiversity–ecosystem functioning research* at the Annual meeting of the GfÖ (Gesellschaft für Ökologie), Potsdam, Germany (with Kirsten Küsel).
- 2012** ► Organization of the session *The Jena Experiment* of the DAAD Science Tour 2012, Understanding Biodiversity and Climate Change, Jena, Germany (with Anne Ebeling).
- 2012** ► Organization of the session *Soil Ecology in a Changing World* at the Annual meeting of the GfÖ (Gesellschaft für Ökologie), Lüneburg, Germany (with Liliane Ruess).
- 2011** ► Organization of the session *Effects of invasive earthworms on biogeoscience processes* at the Annual meeting of the Canadian Geophysical Union, Banff, Kanada (with Edward A Johnson).

## Talks



**173 talks presented in seminars, conferences, & workshops**

### 2023 (17 talks)

- ▶ *Inselbiogeografie*. Recruitment symposium for the W3 Professorship of Animal Ecology at FU Berlin (June 2023), Institute of Biology, FU Berlin, Germany (invited).
- ▶ *The dark side of biodiversity*. Recruitment symposium for the W3 Professorship of Animal Ecology at FU Berlin (June 2023), Institute of Biology, FU Berlin, Germany (invited).
- ▶ *Subproject Z2 – Database and synthesis*. On-Site Evaluation of the Jena Experiment, June 2023, Jena, Germany.
- ▶ *Biotic interactions, community assembly, and eco-evolutionary dynamics as drivers of long-term BEF relationships*. On-Site Evaluation of the Jena Experiment, June 2023, Jena, Germany (**keynote**).
- ▶ *Plant diversity effects on soil carbon accumulation – insights from the Jena Experiment*. “4 per 1000” Northern European regional meeting, June 2023, Helsinki, Finland (**invited keynote**).
- ▶ *Bodenleben: Biodiversität, Bedeutung, Bedrohung, Bewirtschaftung und Bewertung*. Fachtagung „Wege zu einem bundesweiten Bodenbiodiversitätsmonitoring“, Nationalen Monitoringzentrums zur Biodiversität (NMZB), Juni 2023, Leipzig, Germany (**invited keynote**).
- ▶ *Multitrophic communities and energy fluxes in a changing world*. Symposium on Biotic interactions and their role in ecosystem-climate feedbacks, May 2023, Hamburg, Germany (invited).
- ▶ *Welcome Note*. Jena Experiment Retreat, April 2023, Jena, Germany.
- ▶ *The dark side of biodiversity*. Seminar at Department of Botany (April 2023), Faculty of Science, Charles University, Prague, Czech Republik (invited).

▶ *10 Jahre iDiv – 10 Jahre für die Zukunft*. 10<sup>th</sup> Anniversary of iDiv Celebration, April 2023, Leipzig, Germany.

▶ *Biotic interactions, community assembly, and eco-evolutionary dynamics as drivers of long-term BEF relationships – Ideas for the future*.

Forschungskommission Leipzig University, March 2023, Leipzig, Germany.

▶ *ICP Multifunctional Soils*. ECO-N Retreat, March 2023, Leipzig, Germany.

▶ *Jena Experiment FOR 5000 – the second phase*. Jena Experiment Writing Retreat, February 2023, Leipzig, Germany.

▶ *Subproject 07 – Soil multidimensional stability*. Jena Experiment Writing Retreat, February 2023, Leipzig, Germany.

▶ *Subproject Z1 – Central Coordination*. Jena Experiment Writing Retreat, February 2023, Leipzig, Germany.

▶ *Subproject Z2 – Database & synthesis*. Jena Experiment Writing Retreat, February 2023, Leipzig, Germany.

▶ *Biotic Interactions as Mediators of Context-Dependent Biodiversity-Ecosystem Functioning Relationships – MyDiv & BIOCODE*. Joint seminar by the Coomes Lab and the Crop Science Centre, Cambridge, England, Webinar (invited talk).

## **2022 (18 talks)**

▶ *Welcome Note*. Jena Experiment Retreat, November 2022, Leipzig, Germany.

▶ *Biotic interactions, community assembly, and eco-evolutionary dynamics as drivers of long-term BEF relationships – Ideas for the future*. Jena Experiment Retreat, November 2022, Leipzig, Germany.

▶ *The dark side of biodiversity*. DFG Leibniz Lecture Series, Cambridge, England (invited talk).

▶ *The dark side of biodiversity*. MPI Chemical Ecology Seminar, Jena, Germany (invited talk).

▶ *Ecotron Drought Experiment*. MyDiv Workshop, Leipzig, Germany.

▶ *MyDiv – General Introduction*. MyDiv Workshop, Leipzig, Germany.

- ▶ *The dark side of biodiversity*. TROPOS Seminar, Leipzig, Germany (invited talk).
- ▶ *Sustainable land use mitigates the belowground consequences of climate change*. World Biodiversity Forum 2022, June 2022, Davos, Switzerland.
- ▶ *The heterogeneity-diversity-performance nexus*. Frontiers in experimental research on changing environments Conference, June 2022, Leipzig, Germany.
- ▶ *Future Soils*. Breathing Nature Conference, March 2022, Grimma, Germany.
- ▶ *Biotic Interactions as Mediators of Context-Dependent Biodiversity-Ecosystem Functioning Relationships*. Annual iDiv Conference, Leipzig, Germany.
- ▶ *The Jena Experiment*. Annual iDiv Conference, Leipzig, Germany.
- ▶ *To be or not to be – authorship guidelines in the Experimental Interaction Ecology group*. EIE lab group seminar, iDiv, Leipzig, Germany.
- ▶ *Welcome Note*. Jena Experiment Retreat, March 2022, Bad Hersfeld, Germany.
- ▶ *Biotic Interactions as Mediators of Context-Dependent Biodiversity-Ecosystem Functioning Relationships*. iDiv Local Committee Meeting Leipzig University, Leipzig, Germany.
- ▶ *Soil Biodiversity Scenario Modeling*. January 2022, Breathing Nature Workshop, Grimma, Germany.
- ▶ *The heterogeneity-diversity-system performance nexus*. Seminar of the Experimental Interaction Ecology group, Leipzig, Germany.
- ▶ *Biotic Interactions as Mediators of Context-Dependent Biodiversity-Ecosystem Functioning Relationships*. ERC Consolidator Grant interviews of the European Research Council, Brussels, Belgium, Webinar.

## **2021** (11 talks)

- ▶ *Die dunkle Seite der Biodiversität – Wechselwirkungen zwischen dem Menschen und biologischer Vielfalt im Boden*. Jahresversammlung der Leopoldina: Biodiversität und die Zukunft der Vielfalt, Leopoldina, Halle, Germany.
- ▶ *Integrative Biodiversitätsforschung in der nächsten UN-Dekade*. 18. Tagung der Gemeinschaft der Zooförderer, Zoo Leipzig, Germany.



- ▶ *Global networks at iDiv*. Inauguration iDiv building, Leipzig, Germany.
- ▶ *The role of vegetation cover and diversity in determining soil and air temperature*. Breathing Nature Workshop, Leipzig University, Germany.
- ▶ *Ökologische Experimente an der Forschungsstation Bad Lauchstädt*. Exkursion for den Lions Club Markkleeberg, Germany.
- ▶ *Linking global soil biodiversity to ecosystem functioning*. Global Soil Biodiversity Inspire Session at the Annual Meeting of the Ecological Society of America (ESA), virtual conference, USA (invited).
- ▶ *The MyDiv Experiment – Rationale & Design*. TreeDi PI meeting, Webinar.
- ▶ *Biodiversity–ecosystem functioning relationships in terrestrial ecosystems and the dark side of biodiversity*. Ecological principles underlying ecosystem function on land and in the ocean, Paris, France, Webinar (invited).
- ▶ *Bodenbiodiversität. 2. Faktencheck Leitungstreffen*, Leipzig, Germany, Webinar.
- ▶ *Plans in BioCoDe*. Science Strategy Board Meeting, Leipzig, Germany, Webinar.
- ▶ *Welcome Note*. Jena Experiment Retreat, Jena, Germany, Webinar.

## 2020 (15 talks)

- ▶ *The dark side of biodiversity*. Soil Ecology Seminar, Institute of Urban Environment, Chinese Academy of Sciences, Xiamen, China, Webinar (invited talk).
- ▶ *Soil biodiversity research at iDiv*. UFZ Local Committee Meeting, Webinar (invited talk).
- ▶ *Integrative research in the Jena Experiment*. Jena Experiment Lecture Series, Webinar.
- ▶ *The dark side of biodiversity*. Ecology Department Tamm Seminar, Tammsalen, Department of Ecology, Swedish University of Agricultural Sciences (SLU), Uppsala, Sweden, Webinar (invited talk).
- ▶ *Biodiversity Functions*. 5<sup>th</sup> iDiv Annual Conference, Webinar (**Keynote Talk**).
- ▶ *Welcome Note*. Jena Experiment Retreat, October 2020, Jena, Germany.

- ▶ *Plans in the MyDiv Project*. 10<sup>th</sup> TreeDivNet Meeting, Webinar.
- ▶ *Mycorrhizal Fungi as Mediators of Tree Diversity–Ecosystem Functioning Relationships (MyDiv)*. Interview by the European Research Council for an ERC Consolidator Grant (Ecology, Evolution and Environmental Biology (LS8)), Brussels, Belgium (invited; Webinar).
- ▶ *Plans in the MyDiv Project*. Experimental Interaction Ecology lab group seminar, Webinar.
- ▶ *The Rationale of the MyDiv Experiment*. Experimental Interaction Ecology lab group seminar, Webinar.
- ▶ *The dark side of biodiversity*. Triple E Lectures (Ecology, Energy, Environment), Institute of Environmental Sciences Leiden and the Centre for Sustainability, University of Leiden, The Netherlands, Webinar (invited talk).
- ▶ *FOR 5000 – Biotic interactions, community assembly, and eco-evolutionary dynamics as drivers of long-term BEF relationships*. Jena Experiment Retreat, Webinar.
- ▶ *Temporal trends in nematode diversity and the role of climate change - a paper idea*. Experimental Interaction Ecology lab group seminar, Webinar.
- ▶ *Land-use effects on soil organisms and processes in a future climate*. World Biodiversity Forum 2020, Davos, Switzerland (invited talk).
- ▶ *To be or not to be – authorship guidelines in the Experimental Interaction Ecology group*. EIE lab group seminar, iDiv, Leipzig, Germany.

## 2019 (12 talks)

- ▶ *Land-use effects on soil organisms and processes in a future climate*. Symposium: Above- and Belowground Biodiversity for Sustainable Ecosystems, Agroscope, Zurich, Switzerland (**Keynote Talk**).
- ▶ *Biotic interactions, community assembly, and eco-evolutionary dynamics as drivers of long-term BEF relationships*. Experimental Interaction Ecology Lab Group Seminar, Leipzig, Germany.

- ▶ *Biotic interactions, community assembly, and eco-evolutionary dynamics as drivers of long-term BEF relationships.* 4<sup>th</sup> iDiv Annual Conference, Leipzig, Germany.
- ▶ *Welcome Note.* iDiv Annual Conference, Leipzig, Germany.
- ▶ *Jena Experiment und iDiv Ecotron.* Ceremony of signing the Memorandum of Understanding by the science ministers of Saxony, Saxony-Anhalt, and Thuringia on the long-term funding of iDiv, Leipzig, Germany.
- ▶ *Biotic interactions, community assembly, and eco-evolutionary dynamics as drivers of long-term BEF relationships.* On-site review of the proposed DFG Research Unit in the Jena Experiment, Dornburg, Germany.
- ▶ *Research Area 3: Biodiversity and Ecosystem Functioning.* Visit of the Scientific Advisory Board of iDiv, Leipzig, Germany.
- ▶ *Insektensterben überall... auch unter unseren Füßen?* Leipziger Naturschutzwoche, Umweltbibliothek, Leipzig, Germany.
- ▶ *Biodiversitätsfunktionen – Was folgt für Ökosysteme.* Workshop BMBF representatives, Leipzig, Germany.
- ▶ *Functional biodiversity research in the Jena Experiment and beyond.* 1<sup>st</sup> Annual TreeDì PhD Conference, University of Chinese Academy of Sciences, Yanqi Lake Campus, Beijing, China (**Keynote Lecture**).
- ▶ *Da ist der Wurm drin.* Leipzig Book Fair, Leipzig, Germany.
- ▶ *Funktionelle Biodiversitätsforschung im Jena Experiment.* Öffentliche Ringvorlesung des Naturwissenschaftlichen Vereins zu Bremen zusammen mit der Universität Bremen, der Hochschule Bremen und dem Übersee-Museum zum Rahmenthema *Biodiversitätsforschung: ein Auslaufmodell?* Bremen, Germany

## 2018 (9 talks)

- ▶ *Ecosystem responses to exotic earthworm invasion.* 3<sup>rd</sup> iDiv Annual Conference, Leipzig, Germany.
- ▶ *Die dunkle Seite der Biodiversität.* Seniorenakademie, BBZ, Leipzig, Germany.

- ▶ *Global soil biodiversity and ecosystem function dynamics*. Soil Biodiversity Workshop, Leipzig, Germany.
- ▶ *Ecosystem responses to exotic earthworm invasion*. NEOBIOOTA 2018; 10<sup>th</sup> International Conference on Biological Invasions: New Directions in Invasion Biology, Dublin, Ireland (**Keynote Talk**).
- ▶ *Insektensterben überall... auch unter unseren Füßen?* Öffentliche Vorträge von Wissenschaft und Naturschutz zur Eröffnung einer Ausstellung der UN-Dekade Biologische Vielfalt, Leipzig, Germany.
- ▶ *Ecosystem responses to exotic earthworm invasion*. 1<sup>st</sup> International Earthworm Congress, Shanghai, China.
- ▶ *Global soil biodiversity and ecosystem function dynamics*. Flexpool Evaluation Symposium, oral defence for postdoctoral research projects, German Centre for Integrative Biodiversity Research (iDiv), Leipzig, Germany
- ▶ *Land-use intensity alters climate change effects on the magnitude and phenology of soil biological activity*. BONARES Conference 2018 “Soil as a Sustainable Resource”, Berlin, Germany.
- ▶ *The dark side of biodiversity*. Seminar series BILL (Biomedical Lectures Leipzig), Leipzig, Germany (invited talk).

#### 2017 (6 talks)

- ▶ *Effects of invasive earthworms on biogeochemical soil characteristics* at iDiv Summer School, Leipzig, Germany.
- ▶ *iDiv Summer School 2017 – Synthesising and modelling biodiversity data* at iDiv Summer School, Leipzig, Germany.
- ▶ *Das iDiv-Ecotron: Integration von Experiment und Theorie*. Plenary talk at the iDiv Ecotron inauguration, Bad Lauchstädt, Germany.
- ▶ *Community Assembly in Biodiversity–Ecosystem Experiments*. Opening talk at the workshop “Community assembly in BEF experiments”, Leipzig, Germany.

▶ *15 Years Jena Experiment: the Past, the Present, and the Future*. Opening talk at the Symposium “15 Years Jena Experiment: the Past, the Present, and the Future”, Jena, Germany.

▶ *The dark site of biodiversity*. Ökologisches Kolloquium des Instituts für Zoologie, Universität zu Köln, Köln, Germany (invited talk).

## 2016 (8 talks)

▶ *Embracing the complexity of aboveground-belowground networks and links to ecosystem functioning*. Wissenschaftliches Festkolloquium zu Ehren von Herrn Prof. Dr. François Buscot, Halle, Germany (invited talk).

▶ *The Jena Experiment 2016–2018*. Kick-off meeting Jena Experiment postdocs, Jena, Germany.

▶ *Da ist der Wurm drin!?* Science Notes, Leipzig, Germany.

▶ *Die dunkle Seite der Biodiversität*. Stipendiatentreffen DAAD (German Academic Exchange Service), Leipzig, Germany (invited talk).

▶ *Bridging iDiv and BIBS*. Kick-off meeting „Bridging in Biodiversity Science“ at Berlin-Brandenburg Institute of Advanced Biodiversity Research, Berlin, Germany (invited talk).

▶ *Die dunkle Seite der Biodiversität*. Bundeskongress des Verbands zur Förderung des MINT-Unterrichts (MNU), Leipzig, Germany (invited talk).

▶ *What happens after the submission of my paper?* yDiv Editors Workshop, Leipzig, Germany (invited talk).

▶ *The dark site of biodiversity*. Dresdner Zoologische Kolloquien, Senckenberg Naturhistorische Sammlungen Dresden, Dresden, Germany (invited talk).

## 2015 (11 talks)

▶ *iDiv – Wissenschaftliche Glanzlichter*. Festakt zum 3. Geburtstag von iDiv, Leipzig, Germany.

▶ *Biodiversity–ecosystem functioning relationships in a changing world*. 1<sup>st</sup> iDiv Annual Conference, Session Functions, Leipzig, Germany (**Keynote Talk**).

- ▶ *Aboveground–belowground interactions as drivers of biodiversity effects on ecosystem functions and services*. Symposium: Soils and Human Health: Linking Soil, Plants, and the Environment to Human and Animal Health. Annual meetings of the American Society of Agronomy, Crop Science Society of America, and Soil Science Society of America with the Entomological Society of America with the title “*Synergy in Science: Partnering for Solutions*”. Minneapolis, MN, USA (invited symposium talk).
- ▶ *Plant–soil fauna interactions*. Workshop of the Research Unit of the Jena Experiment, Jena, Germany.
- ▶ *The dark side of biodiversity*. Inaugural lecture at Leipzig University, Leipzig, Germany.
- ▶ *Ecosystem Responses to Exotic Earthworm Invasion in Northern North American Forests*. Interview by the European Research Council for an ERC Starting Grant (Panel Evolutionary, Population and Environmental Biology), Brussels, Belgium (invited).
- ▶ *The Jena Experiment – General Introduction*. On-site review of the Research Unit of the Jena Experiment, Jena, Germany.
- ▶ *The design of the Jena Experiment*. yDiv Summer School on Synthesis, Leipzig, Germany.
- ▶ *Within-experiment synthesis in the Jena Experiment*. yDiv Summer School on Synthesis, Leipzig, Germany.
- ▶ *Experimental Interaction Ecology*. Scientific Advisory Board workshop, German Centre for Integrative Biodiversity Research (iDiv), Germany.
- ▶ *Structure and functioning of soil food webs*. Global Change Experimental Facility strategy workshop, UFZ Halle, Germany.

**2014** (10 talks)

- ▶ *Die dunkle Seite der Biodiversität*. Science Notes, Tübingen, Germany (invited talk).

- ▶ *Plant diversity effects on the stability of plant biomass production.* sDiv workshop Plant diversity effects on ecosystem resistance to and recovery from perturbations – workshop II in Leipzig, Germany.
- ▶ *Pervasive effects of exotic earthworm invasion on the biodiversity of North American forests: a meta-analysis.* 10<sup>th</sup> International Symposium on Earthworm Ecology, Athens, GA, USA (**Plenary Talk**).
- ▶ *Aboveground–belowground interactions in a changing world.* Department of Plant Biology Seminar, University of Georgia, Athens, GA, USA (invited).
- ▶ *How to integrate new visions – Experimental Interaction Ecology.* iDiv workshop ‘How to integrate new visions at iDiv’, German Centre for Integrative Biodiversity Research (iDiv), Leipzig, Germany.
- ▶ *Plant diversity effects on soil microbial communities.* Workshop on forest diversity effects on ecosystem functioning, Royal Holloway University of London, Egham, UK (invited).
- ▶ *Identifying the drivers of belowground communities using structural equation modelling.* sDiv Workshop: ‘A framework to improve our understanding of the distribution of global soil biodiversity: establishing the first quantitative synthesis (sOILDIV)’, German Centre for Integrative Biodiversity Research (iDiv), Leipzig, Germany.
- ▶ *Flood effects on belowground consumers.* Workshop of the Research Consortium of the Jena Experiment, Jena, Germany.
- ▶ *Scaling of aboveground–belowground networks.* ‘Networks Workshop’, Friedrich Schiller University Jena, Germany.
- ▶ *The design of the Jena Experiment.* ‘Networks Workshop’, Friedrich Schiller University Jena, Germany.

### 2013 (13 talks)

- ▶ *Soil biodiversity – too redundant to be true?* Oberseminar Allgemeine Botanik und Pflanzenphysiologie, Friedrich Schiller University Jena, Germany (invited).
- ▶ *Stoichiometric responses of soil organisms to forest management.* Biodiversity Exploratories on-site review, Potsdam, Germany.



- ▶ *Unraveling the mechanisms underlying biodiversity–ecosystem functioning relationships using path analysis.* Biodiversity Exploratories workshop “Ecosystem Processes”, MPI-BGC Jena, Germany (invited **Keynote Talk**).
- ▶ *Plant diversity effects on soil food webs are stronger than those of elevated CO<sub>2</sub> and N deposition in a long-term grassland experiment.* Annual meeting of the GfÖ (Gesellschaft für Ökologie), Potsdam, Germany.
- ▶ *Plant diversity effects on soil food webs are stronger than those of elevated CO<sub>2</sub> and N deposition in a long-term grassland experiment.* Annual meeting of the Ecological Society of America (ESA), Minneapolis, USA.
- ▶ *Soil animals and some major processes they drive.* Ph.D. course at International Max Planck Research School for Global Biogeochemical Cycles, MPI for Biogeochemistry, Jena, Germany (invited).
- ▶ *Soil biodiversity – too redundant to be true?* Faculty Colloquium, Friedrich Schiller University Jena, Germany (invited).
- ▶ *Soil biodiversity – too redundant to be true?* POPBIO meeting, 26<sup>th</sup> Plant Population Biology Conference, Tartu, Estonia (invited **Keynote Talk**).
- ▶ *Aboveground – belowground interactions in a changing world and iDiv.* Symposium on ‘Integrative Biodiversity Research’, Full Professorship ‘Experimental Interaction Ecology’, German Centre for Integrative Biodiversity Research (iDiv), Germany.
- ▶ *Licht in den dunklen Boden: Steuergrößen und funktionelle Wichtigkeit von Biodiversität im Boden.* Leipzig Book Fair 2013, Leipzig, Germany (invited).
- ▶ *TreeDivNet going belowground?* Annual meeting of the TreeDivNet, Florence, Italy.
- ▶ *Soil biodiversity – too redundant to be true?* Seminar, UFZ Halle, Germany (invited).
- ▶ *Plant diversity effects on soil organisms and functions – putting the story into perspective.* Institute Seminar, Max-Planck-Institute for Chemical Ecology, Jena, Germany (invited).

**2012** (7 talks)

- ▶ *The Jena Experiment – Results*. DAAD Science Tour 2012, Understanding Biodiversity and Climate Change, Jena, Germany (invited).
- ▶ *The Jena Experiment – Experimental design*. DAAD Science Tour 2012, Understanding Biodiversity and Climate Change, Jena, Germany (invited).
- ▶ *Aboveground–belowground interactions in a changing world*. Symposium W3 Professor for Ecology and Evolution of Animals, Technical University of Munich, Freising, Germany (invited).
- ▶ *Plant diversity effects on ecosystem functioning depend on decomposer diversity and identity*. Annual meeting of the GfÖ (Gesellschaft für Ökologie), Lüneburg, Germany.
- ▶ *Plant diversity effects on soil organisms and resulting feedback effects: the longer you look, the more you see*. Workshop 10 years Jena Experiment, Jena, Germany.
- ▶ *Soil biota and processes in a changing world*. Forest Ecology Seminar, University of Minnesota, MN, USA.
- ▶ *Effects of warming on soil biota in the B4WarmED experiment*. B4WarmED Workshop 2012, University of Minnesota, MN, USA.

**2011 (8 talks)**

- ▶ *Plant diversity effects on ecosystem functioning depend on decomposer diversity and identity*. Forest Ecology Seminar, University of Minnesota, MN, USA.
- ▶ *Aboveground–belowground interactions in a changing world*. Symposium W2 Professor for Terrestrial Ecology, Friedrich Schiller University Jena, Germany (invited).
- ▶ *Aboveground–belowground interactions as a source of complementarity effects in biodiversity experiments*. Annual Meeting of the Ecological Society of America, Austin, TX, USA (invited).
- ▶ *Global change below ground: impacts of elevated CO<sub>2</sub>, N and summer drought on soil food webs and biodiversity*. Cedar Creek Summer Symposium, Cedar Creek Ecosystem Science Reserve, MN, USA (invited).
- ▶ *Interactive effects of global warming and “global worming”*. Annual Meeting of the Canadian Geophysical Union, Banff, Kanada.

- ▶ *Impacts of aboveground diversity loss on belowground processes*. B4WarmED Workshop, Cloquet Forestry Centre, MN, USA (invited).
- ▶ *Aboveground – belowground interactions in a changing world*. Forest Ecology Outburst, University of Minnesota, MN, USA (invited).
- ▶ *Belowground functional shifts*. B4WarmED Symposium, University of Minnesota, MN, USA.

#### 2010 (7 talks)

- ▶ *Aboveground – belowground interactions in a changing world*. Forest Ecology Seminar, University of Minnesota, MN, USA.
- ▶ *Aboveground – belowground interactions in a changing world*. Prof. S. Hobbie's lab group seminar, University of Minnesota, MN, USA (invited).
- ▶ *Importance of earthworm-seed interactions for the composition of plant communities: a review*. 5<sup>th</sup> International Symposium-Workshop on Frugivores and Seed Dispersal, Montpellier, France (invited **Plenary Talk**).
- ▶ *Impacts of aboveground diversity loss on belowground processes*. Soil Science Seminar, University of Nanjing, China (invited).
- ▶ *Linkage between aboveground and belowground diversity*. Colloquium of Soil Science, University of Hohenheim, Germany (invited).
- ▶ *Plant– soil fauna interactions*. Workshop of the Research Consortium of the Jena Experiment, Jena, Germany.
- ▶ *The role of soil fauna for plant performance and ecosystem functioning in a plant diversity gradient*. Workshop of the Research Consortium of the Jena Experiment, Jena, Germany.

#### 2009 (5 talks)

- ▶ *Soil animals affect the diversity-ecosystem function relationship*. Oberseminar Biodiversität, University of Göttingen, Germany.
- ▶ *Soil animals affect the diversity-ecosystem function relationship*. Lunchtime Seminar, Imperial College London, Silwood Park, London, England (invited).
- ▶ *Additive Effekte primärer und sekundärer Zersetzer auf Winterweizen beeinflussen oberirdische Herbivore*. GfÖ Workshop: Biodiversität im Boden, Berlin, Germany.

▶ *Experimenting with earthworms in the field: The method and impacts of earthworms on the diversity-ecosystem functioning relationship.* DBG Workshop: Experimenting with earthworms, Trier, Germany (invited).

▶ *Do animals alter the diversity-stability relationship?* Workshop of the Research Consortium of the Jena Experiment, Jena, Germany.

#### **2008 (7 talks)**

▶ *Invasibility of experimental grassland communities: The role of plant diversity, plant functional group identity and earthworms.* EURECO-GfÖ meeting: Biodiversity in an ecosystem context, Leipzig, Germany.

▶ *Invasibility of experimental grassland communities: The role of plant diversity, plant functional group identity and earthworms.* GfÖ Workshop: Multitrophic Interactions, Göttingen, Germany.

▶ *Earthworms in a plant diversity gradient: Direct and indirect effects on plant competition and establishment.* PhD disputation, Darmstadt, Germany.

▶ *Direct effects of earthworms on plant communities.* Seminar: Probleme der Freilandökologie, Gießen, Germany (invited).

▶ *Split plot analysis.* Weekly Seminar, Darmstadt University of Technology.

▶ *Decomposers in the Jena Experiment.* Workshop of the Research Consortium of the Jena Experiment, Jena, Germany.

▶ *Multilevel stability in a plant diversity gradient.* Workshop of the Research Consortium of the Jena Experiment, Jena, Germany.

#### **2007 (4 talks)**

▶ *Earthworms as drivers of the competition between grasses and legumes.* 37<sup>th</sup> Annual Conference Ecological Society of Germany, Austria and Switzerland, Marburg, Germany.

▶ *Earthworms as drivers of the competition between grasses and legumes.* ESA/SER Joint Meeting, San José, California, USA.

▶ *The role of soil fauna for plant performance and ecosystem functioning in a plant diversity gradient.* Workshop of the Research Consortium of the Jena Experiment, Jena, Germany.

► *Soil fauna in the Jena Experiment*. Workshop of the Research Consortium of the Jena Experiment, Jena, Germany.

**2006** (3 talks)

► *Invasion of European earthworms into a North American aspen forest: Effects on soil chemistry, microflora, fauna and vegetation*. The 8<sup>th</sup> International Symposium on Earthworm Ecology, Kraków, Poland.

► *The role of soil fauna for plant performance and ecosystem functioning in a plant diversity gradient*. Workshop of the Research Consortium of the Jena Experiment, Jena, Germany.

► *Earthworms as drivers of the competition between grasses and legumes*. Workshop of the Research Consortium of the Jena Experiment, Jena, Germany.

**2005** (2 talks)

► *Invasion of European earthworms in a North American aspen forest: Effects on soil chemistry, microflora, fauna, and vegetation*. Workshop above ground and below ground: Decomposer and primary producer interactions, Joint Meeting of the GfÖ and DBG, Witzenhausen, Germany.

► *The role of soil fauna for plant performance and ecosystem functioning in a plant diversity gradient*. Workshop of the Research Consortium of the Jena Experiment, Jena, Germany.

## Teaching



2021

Lecture “*Introduction to scientific writing – structure & important elements*” in the lecture series in the context of the “EIE Stats Course” for Bachelor and Master students (with many members of the Experimental Interaction Ecology group)

- 2021 – Lecture “*To be or not to be... an author of a scientific publication*” in the lecture series in the context of the “Theoreticum” (BIO-219 & BCH-0903) for Master students (with many professors at Leipzig University)
- 2020 Lecture series “*Integrative Biodiversity-Ecosystem Functioning Research and Data Handling Implications*” for PhD students in the Jena Experiment (lead teacher; lecture with many researchers in the Jena Experiment)
- 2020 – Master module “*Biodiversity and Ecosystem Functioning in Terrestrial Ecosystems*” (11-BIO-209) (lecture with Prof. Dr. Alexandra Weigelt and Prof. Dr. Christian Wirth; practical with Prof. Dr. Alexandra Weigelt, Dr. Simone Cesarz, Dr. Katie Barry), 8 SWS
- 2019 – yDiv course „*Introduction to Integrative Biodiversity Science*“ (lecture and seminar), 1 CP (2x in 2019, 1x in 2020, 1x in 2021, 1x in 2022)
- 2019 – Lecture and seminar in “*Aktuelle Fragen in den Lebenswissenschaften I*” (annual, every winter semester)
- 2017 Effects of invasive earthworms on biogeochemical soil characteristics – a meta-analysis, iDiv Summer School, 2 weeks
- 2017 – *Einführung in die Methoden der wissenschaftlichen Arbeit*, practical and seminar for bachelor students (annual, every winter semester)
- 2016 – *Einführung in die Ökologie*, lecture 3 SWS for bachelor students (with Prof. Dr. Christian Wirth; annual, every winter semester)
- 2016 *Biodiversity Experiments*, yDiv graduate short course, 2 ECPS
- 2016 *Effects of invasive earthworms on soil biodiversity – a meta-analysis*, yDiv Summer School, 1 week
- 2015 *Tierökologie* at Leipzig University, lecture 2 SWS
- 2015 *Within and across-experiment synthesis*, yDiv Summer School, full-day course
- 2014 *Biodiversity Experiments*, yDiv graduate short course, 2 ECPS
- 2014 *Writing a scientific paper*, lecture, 1 SWS
- 2014 *Writing a scientific paper*, practical, 2 SWS

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| 2013        | <i>Ecological Experiments</i> at the FSU Jena, practical, 2 SWS  |
| 2013        | <i>Experiments in Ecology</i> at the FSU Jena, seminar, 1 SWS  |
| 2013        | <i>Experimental Ecology</i> at the FSU Jena, lecture, 2 SWS  |
| 2013        | <i>How to write a paper</i> at the FSU Jena, practical, 2 SWS  |
| 2013        | <i>Einführung in die Bodenökologie</i> at the FSU Jena, lecture 2 SWS  |
| 2013        | <i>Grundpraktikum Ökologie</i> , 3 SWS   |
| 2013        | <i>Vertiefungspraktikum Ökologie</i> at the FSU Jena   |
| 2013        | <i>Kleine Ökologische Exkursionen</i> at the FSU Jena  |
| 2013        | <i>Classic Papers in Ecology Seminar</i> at the FSU Jena, 2 SWS  |
| 2012 – 2014 | <i>Methods in Field Ecology</i> at the FSU Jena  |
| 2012 – 2014 | <i>Institute Seminar</i> at the FSU Jena, 1 SWS  |
| 2012        | <i>Advanced Ecological Seminar</i> at the FSU Jena, 2 SWS  |
| 2012        | Lecture/Project <i>Biodiversität</i> at the TUM, 4 SWS   |
| 2012        | <i>Terrestrial Practical</i> (basic practical) at the TUM, 4 SWS   |
| 2012        | <i>Research Practical in Terrestrial Ecology</i> at the TUM, 16 SWS  |
| 2008, 2012  | Guest lectures on <i>Split-plot analysis</i>   |
| 2004 – 2009 | Leader of fourteen zoological expeditions at the Darmstadt University of Technology and at the University of Göttingen |

## **Miscellaneous**

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|------|--------------------------|
| 2011 | Parental leave, 6 months |
| 2009 | Parental leave, 3 months |