

## Curriculum Vitae

### Prof. Dr. Nico Eisenhauer



#### Contact details

**Position** Full Professor for Experimental Interaction Ecology

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#### Links

experimental  
interaction  
ecology



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## Scientific career

- Since 2014      **Full Professor (W3) for *Experimental Interaction Ecology***, German Centre for Integrative Biodiversity Research (iDiv) Halle-Jena-Leipzig and Leipzig University
- 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, short-lists

- 2024 Offer of Full Professor (W3) for *Animal Ecology*, Free University of Berlin, rejected
- 2024 **Top Scientist** (discipline: Ecology & Evolution), **Ecology and Evolution Leader Award 2024**, Research.com 
- 2023 **PIFI Distinguished Scientist** Award of CAS President's International Fellowship Initiative
- 2023 **iDiv Supervisor Award 2023** by iDiv
- 2023 **Award for outstanding engagement in PhD supervision** by Leipzig University
- 2023 Elected Member of the **National Academy of Sciences Leopoldina**, the national academy of Germany, Section: Agricultural and Nutritional Sciences
- 2023 Short-listed for Hamburger Wissenschaftspreis on "One Health" by the Akademie der Wissenschaften in Hamburg
- 2023 **Top Scientist** (discipline: Ecology & Evolution), **Ecology and Evolution Leader Award 2023**, Research.com 
- 2023 **Honorary award** by the city of Fürth (Odenwald) for scientific achievements
- 2022 **Top Scientist** (discipline: Ecology & Evolution), Research.com
- 2021 **World Expert in Soil** (top 0.1%), Expertscape
- 2021 **Reuters list of the world's top climate scientists**, Reuters
- 2021 **Gottfried Wilhelm Leibniz Prize**, German Research Foundation
- 2020 Selected **Alexander von Humboldt Scout** of the Henriette Herz Scouting Programme 
- 2020 **Highly Cited Researcher 2020**, Clarivate
- 2016 **ERC Starting Grant**, European Research Council
- 2014 "**Top 40 under 40**", magazine Capital ("**Best of Germany**")
- 2014 **Heinz Maier Leibniz Prize**, German Research Foundation
- 2013 Offer of Full Professor (W3) for *Animal Evolution and Ecology*, Technical University München, rejected

2012	Offer of Associate Professor (W2), Technical University München, rejected
2012	<b>Emmy-Noether scholarship</b> , German Research Foundation
2010	<b>Postdoc research scholarship</b> , German Research Foundation
2004	<i>Research scholarship</i> , German Academic Exchange Service (DAAD)

### Commission of trust

2024	Chair of the <a href="#">Science Strategy Board</a> at iDiv (7 months)
2024 –	Co-chair of <a href="#">SoilBON</a> ; global coordination hub
2023 – 2024	Chair of the Core Center Committee at iDiv, 6 months
2023 –	Elected member of the Gottfried Wilhelm Leibniz Prize selection committee (DFG)
2023 –	Supervising Editor-in-Chief of the iDiv Newsletter
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 <a href="#">Prize Committee</a> 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 – 2024	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 <a href="#">MyDiv Experiment</a>
2014 –	Head of the <a href="#">iDiv Ecotron</a> and Chair of the <a href="#">iDiv Ecotron Board</a>
2014 – 2019	<a href="#">yDiv</a> 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 2022 member of the [Mental Health Committee](#) at iDiv; 2021 member of the [Strategic Projects](#)

& Support Units Committee at iDiv; 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

[SoilBON](#); Since 2015 Member of [Nutrient Network](#) (PI of site **BadNut** in Bad Lauchstädt, with Sylvia Haider), since 2015 Member of [TreeDivNet](#) (PI of the **MyDiv** Experiment), since 2018 [Drought-Net](#) (PI of site **BadDrought** in Bad Lauchstädt, with Harald Auge), since 2022 [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 22 TV shows, 32 radio interviews, 280 print articles, 597 online articles, 12 public talks, and 58 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)



September 27, 2024: **525 publications in peer-reviewed journals; 41 other publications (publications total: 566); 36,160 citations; Google Scholar h-index 100; i10-index 379; in gray accepted/in press**

### 2024 [70 papers]

- 525** Scheu S, Cameron E, **Eisenhauer N**, Phillips HRP, Römbke J, Rutgers M, Schäfer RB, & Entling MH (2024) Typical earthworm assemblages of major ecosystem types across Europe. *European Journal of Soil Science*, accepted.
- 524** Hutengs C, **Eisenhauer N**, Schädler M, Cesarz S, Lochner A, Seidel M, & Vohland M (2024) Enhanced VNIR and MIR proximal sensing of soil organic matter and PLFA-derived soil microbial properties through machine learning ensembles and external parameter orthogonalization. *Geoderma* 450: 117037; <https://doi.org/10.1016/j.geoderma.2024.117037>.
- 523** Sünneemann M, ..., & **Eisenhauer N** (2024) Sustainable land use enhances microbial and herbivore controls in soil food webs in current and future climates. *Global Change Biology*, accepted.
- 522** Farfan M, Bach EM, **Eisenhauer N**, Franco A, Fraser TD, Potapov A, Ramirez KS, Vilonen L, & Wepking C (2024). Looking to the future of soil biodiversity: the legacy of Diana Wall. *Soil Organisms*, accepted.

- 521 Farfan M, Potapov A & **Eisenhauer N** (2024). Rapid publication and broad communication of Soil Organisms. *Soil Organisms*, accepted.
- 520 Knight CG, ..., **Eisenhauer N**, ..., & de Vries, FT (2024). Soil microbiomes show consistent and predictable responses to extreme events across climates. *Nature*, accepted.
- 519 Shi B, ..., **Eisenhauer N**, ..., & Sun W (2024). Aridity drives the response of soil total and particulate organic carbon to drought in temperate grasslands and shrublands. *Science Advances*, in press.
- 518 Qun L, **Eisenhauer N**, Scheu S, Reitz T, & Schädler M (2024) Grasslands support more diverse and resilient earthworm communities to climate change than croplands in Central Europe. *Agriculture, Ecosystems and Environment* 377: 109259; <https://doi.org/10.1016/j.agee.2024.109259>.
- 517 Kattenborn T, ..., **Eisenhauer N**, & Dehcant B (2024) Temporal dynamics in vertical leaf angles can confound vegetation indices widely used in Earth observations. *Communications Earth & Environment* 5: 550; <https://doi.org/10.1038/s43247-024-01712-0>.
- 516 Romera PJ, Wallace, KJ, McCarthy JK, Rai B, Mitchell G, **Eisenhauer N**, Lusk SH, & Barnes AD (2024) Ecological succession shapes size–density scaling relationships of trees and soil invertebrates. *Functional Ecology* 38: 2081-2315; <https://doi.org/10.1111/1365-2435.14636>.
- 515 Ul Haq H, ..., **Eisenhauer N**, ... & Wubet T (2024) The interactive effect of tree mycorrhizal type, mycorrhizal type mixture and tree diversity shapes rooting zone soil fungal communities in temperate forest ecosystems. *Functional Ecology*; <https://doi.org/10.1111/1365-2435.14651>.
- 514 Zhou G, **Eisenhauer N**, ..., & Delgado-Baquerizo M (2024) Resistance of ecosystem services to global change weakened by increasing number of environmental stressors. *Nature Geoscience*: 1–7; <https://doi.org/10.1038/s41561-024-01518-x>.
- 513 Romero F, ..., **Eisenhauer N**, ..., & van der Heijden M (2024) Soil health is associated with higher primary productivity across Europe. *Nature Ecology & Evolution*; <https://doi.org/10.1038/s41559-024-02511-8>.
- 512 **Eisenhauer N**, ..., & Isbell F (2024) The multiple-mechanisms hypothesis of biodiversity–stability relationships. *Basic and Applied Ecology* 79: 153-166; <https://doi.org/10.1016/j.baae.2024.07.004>.



- 511 Lipoma L, ..., **Eisenhauer N**, ..., & Bruelheide H (2024) No general support for functional diversity enhancing resilience across terrestrial plant communities. *Global Ecology and Biogeography* 33: e13895; <https://doi.org/10.1111/geb.13895>.
- 510 Guerra CA, ..., **Eisenhauer N**, ..., & Ristok C (2024) Foundations for a national assessment of soil biodiversity. *Journal of Sustainable Agriculture and Environment* 3: e12116; <https://doi.org/10.1002/sae2.12116>.
- 509 Díaz-Martínez, ..., **Eisenhauer N**, ..., & César Plaza (2024) Vulnerability of mineral-associated soil organic carbon to climate across global drylands. *Nature Climate Change* 14: 976-982; <https://doi.org/10.1038/s41558-024-02087-y>.
- 508 Li Y, ..., **Eisenhauer N**, ... & Liu X (2024) Plant diversity enhances ecosystem multifunctionality via multitrophic diversity. *Nature Ecology & Evolution*; <https://doi.org/10.1038/s41559-024-02517-2>.
- 507 MacDougall AS, ..., **Eisenhauer N**, ..., & Seabloom EW (2024) Widening global variability in grassland biomass since the 1980s. *Nature Ecology & Evolution*; <https://doi.org/10.1038/s41559-024-02500-x>.
- 506 Pinheiro Alves de Souza Y, ..., Eisenhauer N, ..., & Schulz S (2024) The effect of successive summer drought periods on bacterial diversity along a plant species richness gradient. *FEMS Microbiology Ecology* 100: fiae096; <https://doi.org/10.1093/femsec/fiae096>.
- 505 Phillips HRP, Cameron EK, **Eisenhauer N**, ..., & Beaumelle L (2024) Global changes and their environmental stressors have a significant impact on soil biodiversity—A meta-analysis. *iScience* 27: 110540; <https://doi.org/10.1016/j.isci.2024.110540>.
- 504 Dieskau J, Hensen I, **Eisenhauer N**, Gaberle I, Durka W, Lachmuth S & Auge H (2024) Phylogenetic relationships and plant life stage but not biogeographic history mediate priority effects of European grassland plants. *Journal of Ecology* 112: 2007-2017; <https://doi.org/10.1111/1365-2745.14373>.
- 503 Jing X, ..., **Eisenhauer N**, ..., Van Meerbeek K (2024) Leaf isotopes reveal tree diversity effects on the functional responses to the pan-European 2018 summer drought. *New Phytologist* 243: 1312-1328; <https://doi.org/10.1111/nph.19931>.
- 502 **Eisenhauer N**, Vogel C, Domeignoz Horta LA, Bonato Asato A, Janda Z, Cesarz S (2024) Plant diversity effects on soil multistability. *Research Ideas and Outcomes* 10: e127123; <https://doi.org/10.3897/rio.10.e127123>.



- 501 Eisenhauer N**, Frank K, Weigelt A, Bartkowski B, Beugnon R, Liebal K, et al. (2024) A belowground perspective on the nexus between biodiversity change, climate change, and human well-being. *Journal of Sustainable Agriculture and Environment* 3: e212108; <https://doi.org/10.1002/sae2.12108>.
- 500** Guo L, ..., **Eisenhauer N**, ..., & Liu L (2024) Tree species diversity modulates the effects of fungal pathogens on litter decomposition: evidences from an incubation experiment. *Plant Soil*; <https://doi.org/10.1007/s11104-024-06780-x>.
- 499** Liddicoat C, ..., **Eisenhauer N**, ..., & Breed MF (2024) Bioenergetic mapping of 'healthy microbiomes' via compound processing potential imprinted in gut and soil metagenomes. *Science of The Total Environment* 940: 173543; <https://doi.org/10.1016/j.scitotenv.2024.173543>.
- 498** Thouvenot L, Ferlian O, Horn L, Jochum M & Eisenhauer N (2024) Effects of earthworm invasion on soil properties and plant diversity after two years of field experiment. *NeoBiota* 94: 31-56; <https://doi.org/10.3897/neobiota.94.119307>.
- 497** Sachsenmaier L, Schnabel F, Dietrich P, **Eisenhauer N**, Ferlian O, Quosh J, Richter R & Wirth C (2024) Forest growth resistance and resilience to the 2018–2020 drought depend on tree diversity and mycorrhizal type. *Journal of Ecology* 112: 1787-1803; <https://doi.org/10.1111/1365-2745.14360>.
- 496** Mahecha MD, Bastos A, Bohn FJ, **Eisenhauer N**, Feilhauer H, Hickler T, et al. (2024) Biodiversity and climate extremes: Known interactions and research gaps. *Earth's Future* 12: e2023EF003963; <https://doi.org/10.1029/2023EF003963>.
- 495** Scherzinger F, Schädler M, Reitz T, Yin R, Auge H, Merbach I, Roscher C, Harpole WS, Blagodatskaya E, Siebert J, Ciobanu M, Marder F, **Eisenhauer N** & Quaas M (2024) Sustainable land management enhances ecological and economic multifunctionality under ambient and future climate. *Nature Communications* 15: 4930; <https://doi.org/10.1038/s41467-024-48830-z>.
- 494** Angst G, Potapov A, Joly F-X, Angst S, Frouz J, Ganault P & Eisenhauer N (2024) Conceptualizing soil fauna effects on labile and stabilized soil organic matter. *Nature Communications* 15: 5005; <https://doi.org/10.1038/s41467-024-49240-x>.
- 493** Christel H, Bruelheide H, Cesarz S, **Eisenhauer N**, Hähn GJA & Beugnon R (2024) The spatial distribution of tree–tree interaction effects on soil microbial biomass and respiration. *Ecology and Evolution* 14: e11530; <https://doi.org/10.1002/ece3.11530>.

- 492 Sasaki T, Berdugo M, Kinugasa T, Batdelger G, Baasandai E, & **Eisenhauer N** (2024) *Aridity-dependent shifts in biodiversity–stability relationships but not in underlying mechanisms*. **Global Change Biology** 30: e17365; <https://doi.org/10.1111/gcb.17365>.
- 491 Chen Z, Ni X, Patoine G, Peng C, Yue K, Yuan J, Wu Q, **Eisenhauer N**, Guerra CA, Bol R, Wu F, & Wang GG (2024) *Climate warming accelerates carbon release from foliar litter - a global synthesis*. **Global Change Biology** 30: e17350; <https://doi.org/10.1111/gcb.17350>.
- 490 Bei Q, Reitz T, Schädler M, Hodgskiss LH, Peng J, Schnabel B, Buscot F, **Eisenhauer N**, Schleper C, Heintz-Buschart A (2024) *Genomes of the universal soil ammonia-oxidizing archaea disclosed after two decades*. **ISME Journal**, accepted.
- 489 Luo S, Schmid B, Hector A, Scherer-Lorenzen M, Verheyen K, Barsoum N, Bauhus J, Beyer F, Bruelheide H, Ferlian O, Godbold D, Hall J, Hajek P, Huang Y, Hölscher D, Kreft H, Liu X, Messier C, Nock C, Paquette A, Parker JD, Parker WC, Paterno GB, Reich PB, Rewald B, Sandén H, Sinacore K, Stefanski A, Williams L, & **Eisenhauer N** (2024) *Mycorrhizal associations modify tree diversity–productivity relationships across experimental tree plantations*. **New Phytologist** 243: 1205-1219; <https://doi.org/10.1111/nph.19889>.
- 488 **Eisenhauer N** (2024) *Operationalize biodiversity theory*. **Current Biology** 34: pR571-R573; <https://doi.org/10.1016/j.cub.2024.04.075>.
- 487 Soltani S, Ferlian O, **Eisenhauer N**, Feilhauer H, & Kattenborn T (2024) *From simple labels to semantic image segmentation: Leveraging citizen science plant photographs for tree species mapping in drone imagery*. **Biogeosciences**; <https://doi.org/10.5194/egusphere-2023-2576>.
- 486 Albracht C, Solbach MD, Hennecke J, Bassi L, van der Ploeg GR, **Eisenhauer N**, Weigelt A, Buscot F & Heintz-Buschart A (2024) *Common soil history is more important than plant history for arbuscular mycorrhizal community assembly in an experimental grassland diversity gradient*. **Biology and Fertility of Soils** 60: 547-562; <https://doi.org/10.1007/s00374-024-01821-0>.
- 485 Jurburg S, Blowes S, Shade A, **Eisenhauer N**, & Chase J (2024) *Disturbance and recovery: a synthesis of microbial community reassembly following disturbance across realms*. **Microbiome**, accepted.

- 484 Ganault P, Ristok C, Phillips HRP, Hedde M, Capowiez Y, Bottinelli N, Decaëns T, Marchan D, Gérard S, Mathieu J, Potapov A, Cameron EK, Brown GG, Bartz M, Zeiss R, Zi Y, Tsiafouli M, Russell DJ, Guerra C, & **Eisenhauer N** (2024) *Soil BON Earthworm - A global initiative on earthworm distribution, traits, and spatiotemporal diversity patterns*. **Soil Organisms** 96: 47-60; doi 10.25674/362.
- 483 Bönisch E, Blagodatkaya E, Dirzo R, Ferlian O, Fichtner A, Huang, Leonard SJ, Maestre FT, von Oheimb G, Ray T, & **Eisenhauer N** (2024) *Mycorrhizal type and tree diversity affect foliar elemental pools and stoichiometry*. **New Phytologist** 242: 1614–1629; doi: 10.1111/nph.19732.
- 482 Eldridge DJ, ... **Eisenhauer N**, ..., & Maestre FT (2024) *Hotspots of biogeochemical activity linked to aridity and plant traits across global drylands*. **Nature Plants** 10: 760-770; <https://doi.org/10.1038/s41477-024-01670-7>.
- 481 Sánchez-Bermejo PC, Monjau T, Goldmann K, Ferlian O, **Eisenhauer N**, Bruelheide H, Ma Z, Haider S (2024) *Tree and mycorrhizal fungal diversity drive intraspecific and intraindividual trait variation in temperate forests: Evidence from a tree diversity experiment*. **Functional Ecology** 38: 1089-1103; <https://doi.org/10.1111/1365-2435.14549>.
- 480 Shi X, **Eisenhauer N**, Peñuelas J, Fu Y, Wang J, Chen Y, Liu S, He L, Lucas-Borja ME, Wang L, & Huang Z (2024) *Trophic interactions in soil micro-food webs drive ecosystem multifunctionality along tree species richness*. **Global Change Biology** 30: e17234; <https://doi.org/10.1111/gcb.17234>.
- 479 Blondeel H, ... **Eisenhauer N**, ..., & Baeten L (2024) *Tree diversity reduces variability in sapling survival under drought*. **Journal of Ecology** 112: 1164-1180; <https://doi.org/10.1111/1365-2745.14294>.
- 478 Zheng L, ..., **Eisenhauer N**, ..., & Hautier Y (2024) *Effects of plant diversity on productivity strengthen over time due to trait-dependent shifts in species overyielding*. **Nature Communications** 15: 2078; <https://www.nature.com/articles/s41467-024-46355-z>.
- 477 Singavarapu B, ul Haq H, Darnstaedt F, Nawaz A, Beugnon R, Cesarz S, **Eisenhauer N**, Du J, Xue K, Wang Y, Bruelheide H, & Wubet T (2024) *Influence of tree mycorrhizal type, tree species identity, and diversity on forest root-associated mycobiomes*. **New Phytologist** 242: 1691–1703; doi: 10.1111/nph.19722.

- 476 Liebal K, Denzer V, **Eisenhauer N**, Fritsche I, Kunzmann U, Oña L, Quaas M, Staude I, & Wirth C (2024) *Biodiversity, mental health and well-being: psychological mechanisms and moderators of a complex relationship (BIOWELL)*. **Research Ideas & Outcomes** 10: e116333; doi: 10.3897/rio.10.e116333.
- 475 Dietrich P, Ebeling A, Meyer ST, Asato AEB, Bröcher M, Gleixner G, Huang Y, Roscher C, Schmid B, Vogel A, & **Eisenhauer N** (2024) *Plant diversity and community age stabilize ecosystem multifunctionality*. **Global Change Biology** 30: e17225; <https://doi.org/10.1111/gcb.17225>.
- 474 Bröcher M, Meyer ST, **Eisenhauer N**, & Ebeling A (2024) *The positive plant diversity/consumer relationship is independent of grassland age*. **Basic & Applied Ecology** 76: 58-68; <https://doi.org/10.1016/j.baae.2024.02.006>.
- 473 Patoine G, **Eisenhauer N**, Cesarz S, Phillips HRP, Xu X, Zhang L, & Guerra CA (2024) *Reply to: Field experiments show no consistent reductions in soil microbial carbon in response to warming*. **Nature Communications** 15: 1731; <https://doi.org/10.1038/s41467-024-45509-3>.
- 472 Brown GG, ..., **Eisenhauer N**, ..., & Mathieu J (2024) *Soil macrofauna communities in Brazilian land-use systems*. **Biodiversity Data Journal** 12: e115000; doi: 10.3897/BDJ.12.e115000.
- 471 Gong X, Qiao Z, Yao H, Zhao D, **Eisenhauer N**, Scheu S, Liang C, Liu M, Zhu Y-G, & Sun X (2024) *Urbanization simplifies soil nematode communities and coincides with decreased ecosystem stability*. **Soil Biology & Biochemistry** 190: 109297; <https://doi.org/10.1016/j.soilbio.2023.109297>.
- 470 Hu X, Wu X, Zhou Q, Niklas KJ, Jiang L, **Eisenhauer N**, Reich PB, & Sun S (2024) *Warming causes contrasting spider behavioral responses by changing their prey size spectra*. **Nature Climate Change** 14: 190–197; <https://www.nature.com/articles/s41558-023-01918-8>.
- 469 Waeem Raza, Jiang G, **Eisenhauer N**, Huang Y, Wei Z, Shen Q, Kowalchuk GA, & Jousset A (2024) *Microbe-induced phenotypic variation leads to transgressive overyielding in clonal plant populations*. **Nature Ecology & Evolution** 8: 392-399; <https://www.nature.com/articles/s41559-023-02297-1>.
- 468 Liu Q, **Eisenhauer N**, Scheu S, Angst G, Bückner M, Huang Y, Meador TB, & Schädler M (2024) *Climate-dependent plant responses to earthworms in two*

- land-use types. **Oecologia** 204: 133–146; <https://doi.org/10.1007/s00442-023-05493-9>.
- 467 Ferlian O, Goldmann K, Bonkowski M, Dumack K, Wubet T, & **Eisenhauer N** (2024) *Invasive earthworms shift soil microbial community structure in northern North American forest ecosystems.* **iScience** 27: 108889; <https://doi.org/10.1016/j.isci.2024.108889>.
- 466 Thouvenot L, Ferlian O, Craven D, Johnson EA, Köhler J, Lochner A, Quosh J, Zeuner A, & **Eisenhauer N** (2024) *Invasive earthworms change understory plant community traits and reduce plant functional diversity of a North American forest.* **iScience** 27: 109036; <https://doi.org/10.1016/j.isci.2024.109036>.
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- (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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|------|--|
| 2024 | Co-PI in the Pro-Excellence-Initiative „Breathing Nature“, funded by the Sächsische Aufbaubank – Förderbank – (SAB), Sächsisches Staatsministerium für Wissenschaft, Kultur und Tourismus (with Christian Wirth, Hannes Feilhauer, & Alexandra Weigelt; ~425,000 €). |
| 2023 | PI in the DFG Research Training Group (RTG 2930) <i>Economics of Connected Natural Commons: Atmosphere and Biodiversity</i>  |

- (ECO-N), in the Interdisciplinary Collaborative Project *Soils* (~333,450 €; with Bartosz Bartkowski; 2024-2030)
- 2023 PI in the Jena Experiment (FOR 5000-2), *Subproject Z1: Central Coordination*, funded by the German Research Foundation, Ei 862/25-2 (498,048 €; with Anne Ebeling, Gerd Gleixner, Christiane Roscher & Alexandra Weigelt)
- 2023 PI in the Jena Experiment (FOR 5000-2), *Subproject Z2: Synthesis and Database*, funded by the German Research Foundation, Ei 862/39-1 (256,800 €; with Anne Ebeling, Anna Heintz-Buschart & Holger Schielzeth)
- 2023 PI in the Jena Experiment (FOR 5000-2), *Subproject 07: Soil multistability*, funded by the German Research Foundation, Ei 862/24-2 (278,658 €; with Simone Cesarz & Cordula Vogel)
- 2023 **Speaker of the Jena Experiment (FOR 5000-2)**, *Coordination funds*, funded by the German Research Foundation, Ei 862/23-2 (176,831 €)
- 2023 Follow-up 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 (~10,000 €)
- 2023 Co-PI in the project *BiodivGesundheit: Biodiversity, mental health and well-being: psychological mechanisms and moderators of a complex relationship (BIOWELL)*, funded by the BMBF (~118.000 €, with Katja Liebal, Vera Denzer, Immo Fritsche, Ute Kunzmann, Martin Quaas, Ingmar Staude, Christian Wirth & Antje Hutschenreuther)
- 2023 Co-PI in the Pro-Excellence-Initiative „*Breathing Nature*“, funded by the Sächsische Aufbaubank – Förderbank – (SAB), Sächsisches Staatsministerium für Wissenschaft, Kultur und Tourismus (with Christian Wirth, Hannes Feilhauer, & Alexandra Weigelt; ~425,000 €).
- 2023 PI of the proposal “Internationale wissenschaftliche Veranstaltung: „52. Tagung der Gesellschaft für Ökologie (GfÖ): *Die Zukunft der*

- 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 5000-1), *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 5000-1), *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 5000-1), *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 5000-1)**, *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

- 2024 Bo Meng (Peking University, Beijing, China; 4 weeks)
- 2024 Marcel Ciobanu (Institute of Biological Research, Cluj-Napoca, Romania; 3 weeks)
- 2024 Xin Sun (Institute of Urban Environment, Chinese Academy of Sciences, Xiamen, China; 3 months)
- 2023 Marcel Ciobanu (Institute of Biological Research, Cluj-Napoca, Romania; 3 weeks)
- 2023 Takehiro Sasaki (Graduate School of Environment and Information Sciences, Yokohama National University, Japan; 5 weeks)

- 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 – 2023 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 Piauı, 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: 35)**

Dr. Gerrit Angst (2022-2023), Dr. Šárka Angst (2023-2024), 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. Monica Farfan (2023-ongoing), Dr. Olga Ferlian (2014-ongoing), Dr. Pierre Ganault (2022-2023), Dr. Darren Giling (2016-2019), Dr. Carlos Antônio Guerra (2018-2024), 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. Tengteng Li (2024-ongoing), Dr. Shan Luo (2021-2024), Anna-Maria Madaj (2021-ongoing), Dr. Helen Phillips (2016-2020), Dr. Rine Christopher Reuben (2021-2023), Dr. Soroor Rahmanian (2023-ongoing), Dr. Christian Ristok (2021-ongoing), Dr. Anja Schmidt (2018-2020), Dr. Marie Sünemann (2024-ongoing), Dr. Madhav Prakash Thakur (2016-2017), Dr. Lise Thouvenot (2017-ongoing), Dr. Manfred Türke (2014-2018), Dr. Anja Vogel (2016-

2019), Dr. Cameron Wagg (2013-2016), Dr. Wenting Wang (2024-ongoing), Dr. Alexandra Wright (2016), Dr. Guiyao Zhou (2021-2023)

## Supervised theses



### **Supervisor / co-supervisor of 27 PhD theses**

- 2024 – Marius Munschek: *An economics perspective on soil multifunctionality* (Leipzig University)
- 2024 – Tobias Käcks: *Microclimate-mediated tree diversity effects on soil functions* (Leipzig University)
- 2024 – Zarah Janda: *Plant diversity effects on soil multistability* (Leipzig University)
- 2023 – April Leonar: *The role of tree-nematode interactions in the acclimation and adaptation of trees – soil food webs and ecosystem functioning* (Leipzig University)
- 2023 – Lu Wang: *The role of tree-nematode interactions in the acclimation and adaptation of trees – molecular diversity* (Leipzig University)
- 2023 – Ioannis Constantinou: *Effects of aboveground invertebrate loss on soil biodiversity and ecosystem multifunctionality* (Leipzig University)
- 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)
- 2020 – 2024 Qun Liu: *Effects of climate change and land use on the structure and function of earthworm communities* (GAU Göttingen)
- 2019 – 2024 Marie Sünnemann: *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 89 diploma theses, master theses, bachelor theses, research practicals etc.***

- 2023 – 2024 Alexander Sternberg: *Effects of tree species richness and mycorrhizal type on the understory vegetation*
- 2023 – 2024 Rahel Gormanns: *Impact of tree species richness and mycorrhizal types on leaf trait expression in the MyDiv experiment*
- 2023 – 2024 Anne Busch: *Enhancing structural beta complexity (ESBC) in production forests affects activity response of microbial soil communities to a variety of substrates*
- 2023 – 2024 Felix Zeh: *Influence of plant diversity and community history on soil nematode communities*
- 2023 – 2024 Lea Heimbold: *Effects of soil and plant history on the structure of soil microbial community across a plant diversity gradient*
- 2023 Johannes Meister: *The effects of sieving, freezing, and different soil water conditions on soil microbial respiration using the SIR method*

- 2020 – 2023 Maike Ziegler: *Temporal dynamics of soil microbial communities during urban forest restoration in New Zealand*
- 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 Andraczek: *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*

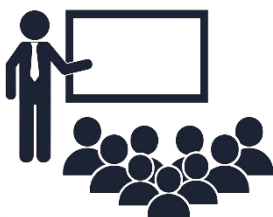
- 2016 – 2018 Guillaume Patoine: *Tree diversity effects on soil animal communities*
- 2015 – 2016 Inés Martin: *Interactive effects of warming, drought, CO<sub>2</sub>, and N deposition on soil communities*
- 2015 – 2016 Maria Feustel: *Ausbreitung von Hornmilben (Oribatida) durch Schnecken im Auwald*
- 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 Lutz: *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 ausgesäeter 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 42 conferences, sessions, workshops etc.**

- 2024** ► *Bridging scales in soil biodiversity–ecosystem functioning relationships*. Session at the World Biodiversity Forum 2024, June 2024, Davos, Switzerland (with Marie Sünemann & Anton Potapov).
- 2024** ► Co-organization of the *sOilFauna Workshop IV*, Mai 2024, Leipzig, Germany (with Jérôme Mathieu).
- 2024** ► Organization of the *Annual Retreat of the Experimental Interaction Ecology Group*, April 2024, Lutherstadt Wittenberg, Germany.

- 2024** ► Organization of the *Jena Retreat of the Jena Experiment*, April 2024, Jena, Germany (with Anne Ebeling).
- 2024** ► Co-organization of the *MyDiv Annual Meeting*, February 2024, Leipzig, Germany.
- 2023** ► Co-organization of the *sOilFauna Workshop III*, December 2023, Paris, France (with Jérôme Mathieu).
- 2023** ► Organization of the *Jena (Writing) Retreat of the Jena Experiment*, December 2023, Leipzig, Germany.
- 2023** ► Organization of the *52nd Annual Meeting of the Ecological Society of Germany, Austria and Switzerland* (>1,150 participants), September 2023, Leipzig, Germany (with Aletta Bonn & Henrique Pereira).
- 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



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

**2024** (10 talks)

- ▶ *Faktencheck Artenvielfalt – Bestandsaufnahme und Perspektiven zum Erhalt der biologischen Vielfalt in Deutschland.* Bundesministerium für Bildung und Forschung, September 2024, Berlin, Germany.
- ▶ *What are the human benefits of soil multifunctionality?* ECO-N Welcome Week of the Graduate School, September 2024, Leipzig, Germany.
- ▶ *The multiple-mechanisms hypothesis of long-term biodiversity-stability relationships.* Workshop of the Biodiversity on a Changing Planet Working group, August 2024, Minneapolis, USA.
- ▶ *The dark side of biodiversity.* SEEM webinar of Université de Montpellier, May 2024, Montpellier, France (invited).
- ▶ *The dark side of biodiversity.* Leopoldina Life Science Symposium 2024, April 2024, Halle, Germany.
- ▶ *The composition of the Jena Experiment Research Unit.* Jena Experiment Retreat, April 2024, Jena, Germany.
- ▶ *The multiple-mechanisms hypothesis of biodiversity-stability relationships.* Jena Experiment Retreat, April 2024, Jena, Germany.
- ▶ *Welcome note.* Jena Experiment Retreat, April 2024, Jena, Germany.
- ▶ *How to deal with reviewer comments.* Experimental Interaction Ecology Seminar, February 2024, Leipzig, Germany.

► *General introduction*. MyDiv Annual Meeting, February 2024, Leipzig, Germany.

**2023** (28 talks)

► *The dark side of biodiversity*. Ecological Seminar, Bremen University, December 2023, Bremen, Germany (invited talk).

► *Welcome Note*. Jena Experiment Retreat, December 2023, Leipzig, Germany.

► *How to respond to reviewers' comments*. Jena Experiment Writing Retreat, December 2023, Leipzig, Germany.

► *Bodenleben: Biodiversität, Bedeutung, Bedrohung, Bewirtschaftung und Bewertung*. Dies Academicus at Leipzig University, December 2023, Leipzig, Germany.

► *To be or not to be – authorship guidelines in the Experimental Interaction Ecology group*. EIE lab group seminar, September 2023, iDiv, Leipzig, Germany.

► *Closing Remarks*. 2nd Annual Meeting of the Ecological Society of Germany, Austria and Switzerland, September 2023, Leipzig, Germany.

► *The multiple-mechanisms hypothesis of biodiversity-stability relationships*. 2nd Annual Meeting of the Ecological Society of Germany, Austria and Switzerland, September 2023, Leipzig, Germany.

► *Welcome Note*. 2nd Annual Meeting of the Ecological Society of Germany, Austria and Switzerland, September 2023, Leipzig, Germany.

► *Die dunkle Seite der Biodiversität*. Gastvortrag für die Oberstufe der Albert-Einstein-Schule in Groß-Bieberau, July 2023, Deutschland (eingeladen).

► *Das "One Health"-Konzept in die Anwendung bringen! Das OHA!-Projekt*. Final selection round of the short-listed candidates for the Hamburger Wissenschaftspreis on "One Health" by the Akademie der Wissenschaften in Hamburg, July 2023, Hamburg, Germany (invited).

► *Das MyDiv Experiment*. BIOLWELL Kick-off Workshop, June 2023, Leipzig, Germany.

- ▶ *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*. NEOBIOTA 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



- 2024 – *Advanced Ecology/Ökologie für Fortgeschrittene*, lecture 2 SWS for bachelor students (with Prof. Dr. Christian Wirth & Alexandra Weigelt; annual, every winter semester)
- 2024 – *Ökologie*, lecture 2 SWS for bachelor students (with Prof. Dr. Christian Wirth; annual, every summer semester)
- 2024 *Biodiversity Experiments*, yDiv graduate short course, 2 ECPS
- 2023 Zoological excursions for teachers; 2-days excursions; Leipzig University



- 2021 – Lectures “*Introduction to scientific writing – structure & important elements*”, “*To be or not to be... an author*”, and “*How to deal with reviewers’ comments*” 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, 1x in 2023)
- 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 – 2024 *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	<i>Within and across-experiment synthesis</i> , yDiv Summer School, full-day course
2014	<i>Biodiversity Experiments</i> , yDiv graduate short course, 2 ECPS
2014	<i>Writing a scientific paper</i> , lecture, 1 SWS
2014	<i>Writing a scientific paper</i> , practical, 2 SWS
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**

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