

Contact details

Position	**Full Professor for Experimental Interaction Ecology**
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Links

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

2026 ***Top Scientist*** (discipline: Ecology & Evolution), ***Ecology and Evolution 2026***, Research.com

2026 Selected nomination by Leipzig University and international finalist of the Arqus Teaching Excellence Award for the module "*Doing Ecological Research (DER) - from the Idea to a Paper*"

2025 ***Highly Ranked Scholar 2025*** in ***Biodiversity*** (rank within the top 0.05%), ScholarGPS®

2025 ***IMS Visiting Professor*** at Institute for Multidisciplinary Sciences, Yokohama National University, Japan (2025-2028)

2025 Leipzig University ***Supervisor Award 2025***

2025 ERC project ECOWORM assessed as ***Scientific Breakthrough*** (defined as a revolutionary work that led to deep change in existing paradigms or new methods opening a new stream of research) by Scientific Department of the European Research Council Executive Agency (ERCEA)

2025 ***Top 2% Scientist*** (Subfield: Ecology; global rank 95), by Stanford University & Elsevier

2025 ***Top Scientist*** (discipline: Ecology & Evolution), ***Ecology and Evolution Leader Award 2025***, Research.com

2024 ***Guest Professorship*** at the Institute of the Urban Environment, Chinese Academy of Sciences, Xiamen, China

2024 ***Best Research Environment Award 2024*** for the Experimental Interaction Ecology Group by Die Junge Akademie of the Berlin-Brandenburg Academy of Sciences and Humanities (BBAW) and the German National Academy of Sciences Leopoldina

2024 Offer of Full Professor (W3) for *Animal Ecology*, Free University of Berlin, rejected; counter-offer accepted of Leipzig University

2024 ***Top 2% Scientist*** (Subfield: Ecology; global rank 117), by Stanford University & Elsevier

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 ***Top 2% Scientist*** (Subfield: Ecology; global rank 139), by Stanford University & Elsevier

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 2% Scientist*** (Subfield: Ecology; global rank 173), by Stanford University & Elsevier

2022 ***Top Scientist*** (discipline: Ecology & Evolution), Research.com

2021 ***Top 2% Scientist*** (Subfield: Ecology; global rank 201), by Stanford University & Elsevier

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 (DFG)

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 Leibnitz Prize***, German Research Foundation
2013	Offer of Full Professor for *Animal Evolution and Ecology* (W3), Technical University München, rejected
2013	Offer of ***Full Professor for Professorship for Experimental Interaction Ecology*** (W3); iDiv/Leipzig University, accepted
2012	Offer of Associate Professor (W2), Technical University München, rejected
2012	Offer of ***Associate Professor for Terrestrial Ecology*** (W2), Friedrich Schiller University Jena, offer accepted
2012	***Emmy-Noether scholarship***, German Research Foundation
2010	***Postdoc research scholarship***, German Research Foundation
2004	*Research scholarship*, German Academic Exchange Service (DAAD)

Commission of trust

2025 –	In the role of Dean of Studies, permanent guest of the internal meetings of the Faculty of Life Sciences, Leipzig University
2025 –	*Dean of Studies*, Faculty of Life Sciences, Leipzig University
2025 – 2026	Member of the *Scientific Committee* of the Global Soil Biodiversity Conference 2026, Victoria, BC, Canada
2024 –	Member of the *Representation Board* at iDiv
2024	Chair of the Science Strategy Board at iDiv (7 months)
2024 –	Co-chair of Soil BON; 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
2022 – 2024	Founding member of the *Mental Health Committee* at iDiv

2021 –	Member of the *iDiv Greenhouse Committee*
2021 –	Member of the Fachgremium Bodenbiodiversität at the Nationales Monitoringzentrum zur Biodiversität (NMZB) of the Bundesamt für Naturschutz (BfN)
2021 –	Member of the *Scientific Advisory Board* for the Deep Soil Ecotron (University of Idaho)
2021	Member of the *Strategic Projects & Support Units Committee* at iDiv
2020 –	Chair of the Prize Committee at iDiv
2020 – 2021	Chair of the Science Strategy Board at iDiv, 6 months
2020 –	Member of the *International Advisory Board* of the Netherlands Plant Eco-phenotyping Centre (NPEC)
2020	Member of the iDiv Speaker Board (Leipzig University Representative, on behalf of Prof. Christian Wirth), 6 months
2019 – 2020	Co-Chair of the Science Strategy Board at iDiv, 6 months
2019 –	Member of the Steering Board of the UFZ Global Change Experimental Facility (GCEF)
2018 – 2024	Permanent member of the Science Strategy Board at iDiv
2018 – 2025	Elected member of the Faculty of Life Sciences, Leipzig University
2015 –	Speaker of the Research Unit of the Jena Experiment
2015 –	Head of the MyDiv Experiment
2014 –	Head of the iDiv Ecotron and Chair of the iDiv Ecotron Board
2014 – 2019	yDiv Board member (graduate school of iDiv)
2012 –	Member of the *Advisory Board* of TUM*mesa*

Editorial boards

2026 –	***Founding Senior Editor*** at *Current Biodiversity*
2021 –	***Advisory Editorial Board*** at *Journal of Sustainable Agriculture and Environment*
2019 –	***Editor-in-Chief*** at *Soil Organisms*
2014 – 2018	Editor-in-Chief at *Pedobiologia – Journal of Soil Ecology*
2012 – 2013	Subject Editor at *Plant and Soil*
2011 – 2013	Subject Editor at *Biodiversity and Conservation*

Reviewer for scientific journals and foundations

Reviewer/editor of >500 scientific papers and project proposals

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

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

Memberships



Since 2012 Deutscher Hochschulverband (DHV), 2007-2023 Ecological Society of America (ESA), since 2007 Ecological Society of Germany, Austria and Switzerland (GfÖ), since 2014 Full member of the German Centre for Integrative Biodiversity Research iDiv, since 2019 Founding member of Soil BON; 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 Member of Drought-Net (PI of site ***BadDrought*** in Bad Lauchstädt, with Harald Auge), since 2022 Member of 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 25 TV shows, 50 radio interviews, 459 print articles, 1297 online articles, 10 podcasts and 58 other outreach activities (like open days, public tours etc.). Here you can find recent news.

Papers in peer-reviewed journals

(chronologically, date of acceptance)

October 2, 2026: **674 publications in peer-reviewed journals; 45 other publications (publications total: 719); 58,909 citations; Google Scholar h-index 124; i10-index 526; in gray accepted/in press**

2026 [77 papers]

674 Köhler M, Eisenhauer N, Ferlian O, Wubet T, & Bruelheide H (2026) *Can the microbiome of the phyllosphere be used as an indicator for herbivory and pathogen damage across tree species.* ***Oikos****, accepted.*

673 Araujo ASF, Pereira APA, de Medeiros EV, …, **Eisenhauer N**, & Singh BK (2026) *Harnessing microbial resilience to restore drylands under desertification*. ***Nature Reviews Microbiology***, accepted.

672 Eisenhauer N, Yi H, Wildermuth B (2026) *From species richness to interaction architecture.* ***Trends in Ecology & Evolution****, accepted.*

671 Mani DTC, Vazquez C, Creamer R, …, **Eisenhauer N**, …, & Mulder VL (2026) *NemEu: European Database on Nematode Communities at Genus or Family Level*. ***Global Ecology and Biogeography*** 35, no. 10: e70312. https://doi.org/10.1111/geb.70312

670 Chen Y, Allan E, Bruelheide H, **Eisenhauer N**, …, & Waller DM (2026) *Integrating long-term biodiversity change into biodiversity–ecosystem functioning studies.* ***Trends in Ecology & Evolution****;* https://doi.org/10.1016/j.tree.2026.09.003

669 Zhang A, Tu C, Frouz J, …, **Eisenhauer N**, & Potapov AM (2026) *Contrasting Energetic Pathways and Successional Trajectories of Soil Food Webs in Natural Succession and Reforestation-Based Restoration.* ***Global Change Biology*** 32, no. 9: e71127; https://doi.org/10.1111/gcb.71127

668 Dias ACF, Cotta SR, Luo Y, & **Eisenhauer N (**2026) *From Microbial Traits to Predictive Management of Multifunctional Soils*. ***Journal of Sustainable Agriculture and Environment*** 5: e70212; https://doi.org/10.1002/sae2.70212

667 Li T, Ferlian O, Wu P, Liu Z, & **Eisenhauer N** (2026) *Tree diversity and mycorrhizal type induce stronger shifts in fungal necromass than in soil carbon*

and nitrogen across the soil profile over a decade of afforestation. ***Plant and Soil***; https://doi.org/10.1007/s11104-026-09082-6

666 Wang W, Xia S, Xiao H, …, **Eisenhauer N**, & Yang X (2026) *Soil nematode diversity is structured by vegetation turnover and trait-mediated dispersal limitation.* ***PNAS*** 123 (39) e2523958123; https://doi.org/10.1073/pnas.2523958123

665 Rai A, Schroeter AS, Amyntas A, …, **Eisenhauer N,** …, & Lange M (2026) *Shifts in plant-soil interactions with ecosystem history revealed by analysing molecular properties of water-extractable organic matter. Journal of Ecology, accepted.*

664 Zhan Z, Fanin N, Sun X, …, & **Eisenhauer N** (2026) *Nitrogen addition weakens the positive effect of tree diversity on soil microbial biomass*. ***Journal of Ecology*** 114: e70447; https://doi.org/10.1111/1365-2745.70447

663 Wang L, Leonar AL, Cesarz S, **Eisenhauer N**, Chatzinotas A & Jurburg SD (2026) *Sample size shapes metabarcoding-driven biodiversity assessments across body sizes in soil*. ***Applied Soil Ecology*** 227: 107400; https://doi.org/10.1016/j.apsoil.2026.107400

662 Meng Z, Wu Y, **Eisenhauer N**., …, & Delgado-Baquerizo M (2026) *Afforestation and reforestation support coupled gains in soil life and carbon storage worldwide.* ***Nature Ecology & Evolution***; https://doi.org/10.1038/s41559-026-03183-2

661 Nabel M, Pieper S, Lehmitz R, **Eisenhauer N**, …, & Xylander WER (2026) *The Soil Organism of the Year – Making Hidden Soil Biodiversity Visible to a Broader Public.* ***Soil Organisms****, accepted.*

660 Li W, Borer ET, Seabloom EW, … , **Eisenhauer N**, …, & Bakker JD (2026) *Plant species responses to nutrient addition, but not to herbivore exclusion, strengthen over time in global grasslands.* ***Journal of Ecology*** 114: e70443; https://doi.org/10.1111/1365-2745.70443

659 Meng B, Huang Y, Roscher C, Sasaki T, Wang S & **Eisenhauer N** (2026) *Temporal Decoupling of Biodiversity Effects on Grassland Productivity and Stability*. ***Ecology Letters*** 29: e70451; https://doi.org/10.1111/ele.70451

658 Yin R, Wu R, Gruss I, Kardol P, **Eisenhauer N** & Schädler M (2026) *Vertical stratification mediates climate-driven body size shifts in temperate grassland Collembola.* ***Applied Sol Ecology*** 226: 107326; 10.1016/j.apsoil.2026.107326

657 Sasaki T, Hoss D, Huang Y, …, & **Eisenhauer N** (2026) *Biodiversity effects under climate extremes intensify with aridity in grasslands but not forests*. ***Nature***

Ecology & Evolution 10: 1464–1474; https://doi.org/10.1038/s41559-026-03130-1

656 Yi H, Ferlian O, Becker PJ, …, & **Eisenhauer N** (2026) *Tree diversity and mycorrhizal type independently shape multitrophic biodiversity, with stronger effects belowground than aboveground.* ***Nature Ecology & Evolution*** 10: 1628–1643; https://doi.org/10.1038/s41559-026-03147-6

655 Zhou X, Hu X, Feng Y, …, **Eisenhauer N &** Sun S (2026) *Field warming increases activity time, body mass and abundance of field slugs in an alpine meadow***.** ***Oecologia*** 208: 96; https://doi.org/10.1007/s00442-026-05938-x

654 Eisenhauer N, Köninger J, Lanz S, …, & Potapov A (2026) *Visions for soil biodiversity and health indicators: outcomes from the World Biodiversity Forum 2026.* ***Soil Organisms*** *98*(2): 203–210; https://doi.org/10.25674/523

653 Lettenmaier L, **Eisenhauer N**, Cesarz S, …, & Ristok C (2026) *Native Earthworms and Roe Deer in Temperate Forests: Friends in the Sun, Foes in the Shade*. ***Ecology*** 107(9): e70520; https://doi.org/10.1002/ecy.70520

652 Zhu G, Luan L, Wang X, …, **Eisenhauer N**, …& Jiang Y *(2026) Cell size mediates community assembly and metabolic potential of earthworm gut microbiota to shape host physiological functions.* ***Microbiome***, *accepted;* https://doi.org/10.1186/s40168-026-02483-w

651 Gao GF, Chu H, Yang T,…, **Eisenhauer N**, & Delgado-Baquerizo M (2026) *Environmental Filtering Weakens Latitudinal Diversity Gradients in Soil Biodiversity Worldwide.* ***Global Ecology and Biogeography*** 35, no. 7: e70274. https://doi.org/10.1111/geb.70274

650 Slette IJ, Seabloom EW, Arnillas CA, …, **Eisenhauer N**, … & Borer ET (2026) *Nutrient Enrichment Increases Grassland Biomass Sensitivity to Interannual Precipitation Variation.* ***Global Change Biology*** 32, no. 8: e71053. https://doi.org/10.1111/gcb.71053

649 Eisenhauer N, & Potapov A (2026) *Strengthening community-driven publishing in soil ecology: Soil Organisms becomes a PCI-friendly journal.* ***Soil Organisms*** *98*(2): 157–159; https://doi.org/10.25674/518

648 Bonato Asato AE, Sena O, Silva JLA, …, Silva, **Eisenhauer N**, …, & Caliman A (2026) *Trait-associated pathway links plant diversity to litterfall phenology in a seasonally dry tropical forest.* ***Oikos*** e12215; https://doi.org/10.1002/oik.12215

647 Sanaei A, Saxena S, Mueller KE, …, **Eisenhauer N**, …, & Weigelt A (2026) *On the relationship between root economics and plant hydraulic traits.* ***New Phytol*** 251: 3289-3302; https://doi.org/10.1111/nph.71442

646 Zaytsev A, **Eisenhauer N**, & Potapov A (2026) *Deeper taxonomic knowledge for better understanding soil biodiversity and its patterns.* ***Soil Organisms*** *98*(SI): 1–2; https://doi.org/10.25674/512

645 Bertuol-Garcia D, van den Brink L, Carbognani M, …, **Eisenhauer N**, …, & Shackelford N (2026) *Long-term aridity shapes grassland drought resistance and modulates the roles of plant diversity and functional composition*. ***Journal of Ecology*** 114, e70384; https://doi.org/10.1111/1365-2745.70384

644 Lettenmaier L, Cadotte MW, Dittrich S, …, **Eisenhauer N**, …, & Müller J (2026) *Contrasting direct and indirect effects of roe deer on herb layer vegetation in gaps and closed canopies.* ***Journal of Ecology*** 114, e70382; https://doi.org/10.1111/1365-2745.70382

643 Wan N-F, Li M, Shen S, …, **Eisenhauer N**, …, & Scherber C (2026) *Plant diversity modifies multi-trophic interactions in croplands, grasslands and forests.* ***Science Advances***, 12, eaeb8680; https://www.science.org/doi/10.1126/sciadv.aeb8680.

642 Wu D, Chu C, Seibold S, **Eisenhauer N**, Mathieu J, & Yu M (2026) *Spatial clustering of termites but not fungi at site-scale drive global wood decay patterns. Global Change Biology* 32, no. 5: e70923; https://doi.org/10.1111/gcb.70923.

641 Sasaki T, Hoss D, Huang Y, …, & **Eisenhauer N** (2026) *Biodiversity effects under climate extremes intensify with aridity in grasslands but not forests.* ***Nature Ecology & Evolution***, 10, 1464-1474; https://www.nature.com/articles/s41559-026-03130-1.

640 Barnes AD, Brose U, **Eisenhauer N**, Berti E, …, & Gauzens B (2026) *Food web complexity underlies the relationship between biodiversity and ecosystem functioning.* ***Nature***, 656, 383–389; https://doi.org/10.1038/s41586-026-10710-5.

639 Hong P, Schmid B, Craven D, … **Eisenhauer N**, …, Wang S (2026) *Mechanistic links betweeb coexistence, productivity, and stability in experimental grasslands.* ***Proceedings of the National Academy of Sciences USA (PNAS)***, 123 (22) e2602893123; https://doi.org/10.1073/pnas.26028931.

638 Rahmanian S, **Eisenhauer N**, Ludwig A, Huang Y, & Feilhauer H (2026) *Relationships between spectral and biological diversity depend on season and*

habitat type. ***Remote Sensing Applications: Society and Environment***, 42, 102039; https://doi.org/10.1016/j.rsase.2026.102039.

637 Pierick K, Seidel D, …, **Eisenhauer N**, …, Schuldt B (2026) *Microclimatic heterogeneity is associated with forest structural complexity and biodiversity.* ***Ecological Indicators***, 187, 114874; https://doi.org/10.1016/j.ecolind.2026.114874.

636 Albert G, Staab M, …, **Eisenhauer N**, …, Schuldt A (2026) *Multitrophic interaction networks mediate biodiversity effects on ecosystem multifunctionality.* ***Nature Communications***, 17, Article number: 5787; https://doi.org/10.1038/s41467-026-75046-0.

635 Isbell F, Mori AS, Loreau M, …, **Eisenhauer N**, … Zirbel CR (2026) *Predicting temporal stability and resilience from resistance and recovery.* ***Nature***; https://doi.org/10.1038/s41586-026-10498-4.

634 Brachmann S, Kiesewetter, …, **Eisenhauer N**, & Barnes AD (2026) *Urban forest restoration enhances soil microbial functional potential and functional insurance via shifts in β-diversity.* ***Environmental Microbiome***, 21, 74; https://doi.org/10.1186/s40793-026-00896-6.

633 Calderón-Sanou I, Ballabio C, …, **Eisenhauer N**, …, & Guerra CA (2026) *An integrated assessment of European soil health and restoration potential.* ***Journal of Sustainable Agriculture & Environment***, 5, e70163; https://doi.org/10.1002/sae2.70163.

632 Tůmová M, Lu J-Z, … **Eisenhauer N**, …, & Potapov A (2026) *Standardized protocols for soil fauna extraction and a call for cross-lab implementation.* ***Ecology & Evolution***, 16, e73407; https://doi.org/10.1002/ece3.73407.

631 Wan N-F, Shen S, … **Eisenhauer N**, …, & Tang J-J (2026) *Trophic cascades drive sustainability in the agricultural heritage rice-fish coculture system.* ***Current Biology***, 36, 1–15; https://doi.org/10.1016/j.cub.2026.03.046.

630 Jensen J, Blondeel H, …, **Eisenhauer N**, …, & Weih M (2026) *Tree species diversity drives above-ground carbon sequestration through light-related trait shifts.* ***Functional Ecology***, 40, 1656-1675; https://doi.org/10.1111/1365-2435.70320.

629 **Eisenhauer N**, Farfan MA, & Potapov A (2026) *Global scientific collaboration under strain — implications for soil biodiversity research and conservation.* ***Soil Organisms***, 98(1), 1–3. https://doi.org/10.25674/505.

628 Zuev AG, Peter S, **Eisenhauer N**, …, & Hohberg K (2026) *Dominance of arbuscular mycorrhiza and ectomycorrhiza drive shifts in soil nematode communities along the deep soil profile in a young post-agricultural forest.* ***Eurasian Soil Science***, 59, 98; DOI: 10.1134/S1064229325604834.

627 Bönisch E, …, **Eisenhauer N***, & Beugnon R* (2026) *Effects of tree diversity and mycorrhizal type on the spatio-temporal variability of leaf litter production and quality in temperate forests.* ***Journal of Ecology***, 114, e70315; https://doi.org/10.1111/1365-2745.70315. *joint senior authorship.

626 Meng Z, Li H, …, **Eisenhauer N**, …, & Delgado-Baquerizo M (2026) *Coupled above- and belowground ecosystem stability worldwide.* ***Advanced Science***, https://doi.org/10.1002/advs.202517411.

625 Ellerbrok J, Sporbert M, …, **Eisenhauer N**, …, & Bruelheide H (2026) *Determinants of terrestrial and limnic species richness in Germany.* ***Diversity & Distributions***, 32(3), e70170; https://doi.org/10.1111/ddi.70170.

624 Angst G, …, & **Eisenhauer N** (2026) *Soil mesofauna promote mineral-associated organic matter formation under ambient and future climates.* ***Agriculture, Ecosystems and Environment***, 401, 110294; https://doi.org/10.1016/j.agee.2026.110294.

623 Zeiss R, …, **Eisenhauer N**, …, & Guerra CA (2026) *Uncertain role of conservation areas to protect soil biodiversity and functioning.* ***Global Ecology & Conservation***, 66, e04052, https://doi.org/10.1016/j.gecco.2026.e04052.

622 Mallick S, …, **Eisenhauer N**, …, & Müller J (2026) *Elevation reverses the effects of forest structure on folivory and leaf asymmetry.* ***Functional Ecology***, 40(4), 1061-1073; https://doi.org/10.1111/1365-2435.70285.

621 Finck J, …, **Eisenhauer N**, …, & Gleixner G (2026) *Plant diversity induces shifts from microbial generalists to specialist by enhancing niche differentiation, microbiome connectivity, and network stability in a temperate grassland.* ***Environmental Microbiome***, 21, 39; https://doi.org/10.1186/s40793-026-00857-z.

620 Spohn M, …, **Eisenhauer N**, …, & Zhang P (2026) *Intense solar radiation constrains plant species richness in global grasslands.* ***Proceedings of the National Academy of Sciences USA***, 123, e2527128123; https://doi.org/10.1073/pnas.2527128123.

619 Yang, X., Schädler, M., **Eisenhauer, N.**, … & Wang, X. (2026). *Trait-based responses of soil nematode communities to land use and climate change.* ***Journal of Applied Ecology***, 63(2), e70297; https://doi.org/10.1111/1365-2664.70297.

618 Liu, H., Martins, C. S. C., … **Eisenhauer, N.**, … & Singh, B. K. (2026). *Soil protist diversity and biotic interactions shape ecosystem functions under climate change.* ***Global Change Biology***, 32(1), e70692, https://doi.org/10.1111/gcb.70692.

617 Schwarz, R., Bradler, P. M., …, **Eisenhauer, N.** & Cesarz, S. (2026). *Enhanced forest structural heterogeneity increases functional β-diversity but reduces α- and γ-diversity in soil nematodes.* ***Soil Biology & Biochemistry***, 214, 110078, https://doi.org/10.1016/j.soilbio.2025.110078.

616 Winterfeldt, S., Bardgett, R., … **Eisenhauer, N.**, … & Rousk, J. (2026). *Microbial use of plant-derived carbon increases drought resistance and soil carbon accumulation at high plant diversity.* ***Journal of Ecology***, 114(2), e70250; https://doi.org/10.1111/1365-2745.70250.

615 Pan, X., Hautier, Y., … **Eisenhauer, N.**, … & de Bello, F. (2026). *Reconciling inconsistencies in diversity-population stability relationships across global plant communities.* ***New Phytologist***, 250(1), 154-165; https://doi.org/10.1111/nph.70921.

614 Rahmanian, S., **Eisenhauer, N.**, … & Maestre, F. T. (2026). *Abiotic and biotic controls of non-native perennial plant success in drylands.* ***Nature Ecology & Evolution***, 10, 523-535; https://doi.org/10.1038/s41559-025-02971-6.

613 Yin, R., … & **Eisenhauer, N.** (2026). *Global environmental changes threaten the feeding activity of soil detritivores.* ***Current Biology***, 36, 734-747.e3; DOI: 10.1016/j.cub.2025.12.040.

612 Lu, Y., **Eisenhauer, N.**, … & Guerra, C. A. (2026). *Landscape effects on global soil pathogenic fungal diversity across spatial scales.* ***Nature Communications***, 17, 1164; https://doi.org/10.1038/s41467-025-67929-5.

611 Medina-van Berkum, P., Albracht, C., Bröcher, M., Solbach, M. D., Stein, G., Bonkowski, M., … **Eisenhauer, N.**, ... & Unsicker, S. B. (2026). *Plant diversity influences plant volatile emission with varying effects at the species and community levels.* ***Proceedings of the National Academy of Sciences (PNAS)***, 123, e2518326123; https://doi.org/10.1073/pnas.2518326123.

610 Jayaramaiah, R. H., Martins, C. S., Egidi, E., Macdonald, C. A., Wang, J. T., **Eisenhauer, N.**, ... & Singh, B. K. (2026). *Plant functional groups shape microbial colonization and decomposition dynamics in grassland soils.* ***Soil Biology and Biochemistry***, 214, 110067; https://doi.org/10.1016/j.soilbio.2025.110067.

609 Zhou, Z., **Eisenhauer, N.,** … & Potapov, A. (2026). *Greater trophic diversity of soil animal communities under agricultural land use and warmer climate.* ***Nature Ecology & Evolution***, 10, 700-711; https://doi.org/10.1038/s41559-026-03014-4.

608 Christel, H., Beugnon, R., Yuanyuan, H., Delory, B. M., Ferlian, O., Haq, H. U., ... **Eisenhauer, N.** & Cesarz, S. (2026). *Tree species richness effects on soil multifunctionality vary with proximity to target trees.* ***Soil Biology and Biochemistry***, 214, 110060; https://doi.org/10.1016/j.soilbio.2025.110060.

607 Romera, P. J., Gauzens, B., Antunes, A. C., Brose, U., **Eisenhauer, N.**, Ferlian, O., ... & Barnes, A. D. (2025). *Detection of energetic equivalence depends on food web architecture and estimators of energy use.* ***Nature Communications***, 17, 895; https://doi.org/10.1038/s41467-025-67615-6.

606 Worthy, S., … **Eisenhauer, N.**, … & Funk, J. L. (2026) *Growth form and lifespan of herbaceous species mediate the role of traits in short-term drought response.* ***Nature Ecology & Evolution***, 10, 512-522; https://doi.org/10.1038/s41559-026-02989-4.

605 Romero, F., Labouyrie, M., Orgiazzi, A., Ballabio, C., Panagos, P., Jones, A., ... **Eisenhauer, N.**, … & van der Heijden, M. G. (2026). *The soil microbiome as an indicator of ecosystem multifunctionality in European soils.* ***Nature Communications***, 17, 705; https://doi.org/10.1038/s41467-025-67353-9.

604 Solbach, M. D., Albracht, C., Dumack, K., **Eisenhauer, N.**, Fiore-Donno, A. M., Heck, N., ... & Bonkowski, M. (2025). *Legacies of consecutive summer droughts on soil-borne plant parasitic protists (Oomycota: Stramenopila and Phytomyxea: Rhizaria) and protistan consumers (Cercozoa: Rhizaria) along an experimental plant diversity gradient.* ***New Phytologist***, 249(4), 2010-2024; https://doi.org/10.1111/nph.70756.

603 Roscher, C., Feng, Y., & **Eisenhauer, N.** (2026). *Plant species with 'fast' traits are winners in young and high-diversity plant communities.* ***Journal of Ecology***, 114(1), e70216; https://doi.org/10.1111/1365-2745.70216**.**

602 Sun, X., … & **Eisenhauer, N.** (2026). *A call for collaboration on urban soil biodiversity monitoring through eDNA methods – the Global Urban Soil Biodiversity (Global-USB) Project.* ***Soil Organisms***, 98(1), 5–10. https://doi.org/10.25674/474.

601 MacDougall, A. S., Esch, E., Chen, Q., Carroll, O., Bonner, C., Ohlert, T., ..., **Eisenhauer, N.**, … & Seabloom, E. W. (2026). *The global extent of the grassland biome and implications for the terrestrial carbon sink.* ***Nature Ecology & Evolution***, 10, 246–257; https://doi.org/10.1038/s41559-025-02955-6.

600 **Eisenhauer, N**., Sünnemann, M., … & Potapov, A. (2026). *Soil biodiversity effects on ecosystems.* ***Nature Reviews Biodiversity***, 2, 76–91; https://doi.org/10.1038/s44358-025-00123-z.

599 Dang, P., Chang, S. X., Chen, J., Delgado-Baquerizo, M., Bahram, M., **Eisenhauer, N.**, ... & Tedersoo, L. (2026). *Long-term climate warming substantially reduces global soil microbial richness.* ***One Earth***, 9(1), 101511; https://doi.org/10.1016/j.oneear.2025.101511.

598 Zuev, A. G., Hauer, A., Angst, G., Chatzinotas, A., **Eisenhauer, N**., Ferlian, O., ... & Potapov, A. (2026). *Rapid allocation of freshly added organic nitrogen to particulate organic matter in ectomycorrhiza-but not arbuscular mycorrhiza-dominated forests.* ***Soil Biology & Biochemistry***, 109999; https://doi.org/10.1016/j.soilbio.2025.109999.

2025 [69 papers]

597 González, A. L., Merder, J., Andraczek, K., Brose, U., Filipiak, M., Harpole, W. S., ... **Eisenhauer, N.**, … & Dézerald, O. (2025). *Nitrogen deposition reveals global patterns in plant and animal stoichiometry.* ***Nature Communications***, 16(1), 10977; https://doi.org/10.1038/s41467-025-65960-0**.**

596 Li, T., **Eisenhauer, N.**, & Liu, Z. (2025). *Illuminate underground phenology to aid carbon sequestration.* ***Communications Earth & Environment***, 6(1), 870; https://doi.org/10.1038/s43247-025-02940-8.

595 Lettenmaier, L., Mysterud, A., Mitesser, O., Ammer, C., Hothorn, T., Cesarz, S., **Eisenhauer, N.**, ... & Pierick, K. (2025). *Light and ungulate browsing interact in shaping future woody plant diversity through natural regeneration.* ***Journal of Applied Ecology***, 62(12), 3367-3380; https://doi.org/10.1111/1365-2664.70211.

594 Sachsenmaier, L., Schnabel, F., Tezeh, F. R., Castro Sánchez-Bermejo, P., **Eisenhauer, N.**, Ferlian, O., ... & Wirth, C. (2025). *Hydro-Functional Traits and Their Dissimilarity to the Neighbourhood Buffer Tree Growth Against the 2018–2020 Central European Drought.* ***Global Change Biology***, 31(11), e70588; https://doi.org/10.1111/gcb.70588.

593 Rahmsdorf, E., Doktor, D., Feilhauer, H., Brede, B., Dienstbach, L., **Eisenhauer, N.**, ... & Lange, M. (2025). *Drivers of remotely sensed tree height heterogeneity across spatial scales: Tree species diversity effects depend on local conditions and forest type.* ***Ecological Indicators***, 179, 114245; https://doi.org/10.1016/j.ecolind.2025.114245.

592 Haq, H. U., Singavarapu, B., Ferlian, O., Christel, H., Cesarz, S., **Eisenhauer, N.**, ... & Wubet, T. (2025). *Impacts of mycorrhizal types, tree diversity, and species identity on the soil microbial genomic functional potential in temperate forests.* ***Microbiology Spectrum***, 13(12), e00295-25; https://doi.org/10.1128/spectrum.00295-25.

591 Soltani, S., Gillespie, L. E., Exposito-Alonso, M., Ferlian, O., **Eisenhauer, N.**, Feilhauer, H., & Kattenborn, T. (2025). *Automated mask generation in citizen science smartphone photos and their value for mapping plant species in drone imagery.* ***Biogeosciences***, 22, 6545–6561, https://doi.org/10.5194/bg-22-6545-2025.

590 Bröcher, M., Ebeling, A., Bassi, L., Medina-van Berkum, P., van Dam, N. M., **Eisenhauer, N.**, ... & Meyer, S. T. (2025). *Plant–herbivore interactions depend on plant richness, plant and soil history.* ***Functional Ecology***, 39(12), 3672-3687; https://doi.org/10.1111/1365-2435.70191.

589 Barry, K. E., Hennecke, J., Weigelt, A., Bergmann, J., Bruelheide, H., Freschet, G. T., ..., **Eisenhauer, N.**, … & Mommer, L. (2025). *Rooting for function: community-level fine-root traits relate to many ecosystem functions.* ***New Phytologist***, 248(6), 3221-3239; https://doi.org/10.1111/nph.70606.

588 Kempel, A., Adamidis, G. C., Anadón, J. D., Atkinson, J., Auge, H., Avtzis, D., ..., **Eisenhauer, N.**, … & Allan, E. (2025). *The Bug-Network (BugNet): A Global Experimental Network Testing the Effects of Invertebrate Herbivores and Fungal Pathogens on Plant Communities and Ecosystem Function in Open Ecosystems.* ***Ecology & Evolution****,* 15(10), e72111; https://doi.org/10.1002/ece3.72111.

587 Coulibaly, J. L. K., Gong, X., Kayiranga, A., Shangguan, H., Chen, Y., Yu, X., ... **Eisenhauer, N.** & Sun, X. (2025). *Nematode diversity loss and community change in urban green spaces explained by alterations in soil pore structure and chemical properties.* ***Basic & Applied Ecology*** 89: 26-36; https://doi.org/10.1016/j.baae.2025.08.008.

586 Ohlert T, Smith MD, Collins SL, Knapp AK, Dukes JS, Sala O, ..., **Eisenhauer N**, … & Terry TJ (2025) *Drought intensity and duration interact to magnify losses in primary productivity.* ***Science*** 390(6770), 284-289; https://www.science.org/doi/10.1126/science.ads8144.

585 Yi H, Ferlian O, Cesarz S, Ciobanu M, & **Eisenhauer N** (2025) *Tree Diversity Increases the Diversity of Soil Nematodes and the Density of Persisters in a Temperate Forest Experiment.* ***European Journal of Soil Science*** 76(5): e70183; https://doi.org/10.1111/ejss.70183.

584 Mani DTC, Mulder VL, Martin CV, Geisen S, Campos-Herrera R, Čerevková A, ..., **Eisenhauer N**, … & Creamer, R. (2025) *Drivers of the geographical distribution of nematode-based indices across Europe.* ***Applied Soil Ecology*** 214: 106359; https://doi.org/10.1016/j.apsoil.2025.106359.

583 Jensen J, Blondeel H, Guillemot J, Schnabel F, Serrano-León H, Auge H, ..., **Eisenhauer N**, … & Weih, M. (2025). *Diversity in resource use strategies promotes productivity in young planted tree species mixtures.* ***Global Change Biology*** 31(9): e70493; https://doi.org/10.1111/gcb.70493.

582 van Galen LG, Smith GR, Margenot AJ, Waldrop MP, Crowther TW, Peay KG, ..., **Eisenhauer N**, … & van den Hoogen, J. (2025). *A global database of soil microbial phospholipid fatty acids and enzyme activities.* ***Scientific Data***, 12(1), 1568; https://doi.org/10.1038/s41597-025-05759-2.

581 Malla MA, Ansari FA, Featherston J, Hassan H, Owaes M, Osman A, ..., **Eisenhauer N**, … & Kumari S (2025) *Microalgae inoculation increases bacterial diversity and gene abundances related to nutrient removal while decreasing antibiotic resistant genes in municipal wastewater.* ***Algal Research*** 91: 104217; https://doi.org/10.1016/j.algal.2025.104217.

580 Schwarz R, **Eisenhauer N**, Ammer C, Bradler PM, Decker O, Delory BM, ... & Cesarz S (2025) *Inconsistent short-term effects of enhanced structural complexity on soil microbial properties across German forests.* ***Applied Soil Ecology*** 214: 106335; https://doi.org/10.1016/j.apsoil.2025.106335.

579 Li T, Phillips RP, Rillig MC, Angst G, Kiers ET, Bonfante P, ... & **Eisenhauer N***, Liu Z* (2025) *Mycorrhizal allies: synergizing forest carbon and multifunctional restoration.* ***Trends in Ecology & Evolution*** 40: 983-994; https://doi.org/10.1016/j.tree.2025.07.004. *shared senior authorship.

578 Wang S, Barry KE, Kowalchuk GA, **Eisenhauer N**, Pan X, Verschoor MR, ... & Hautier Y (2025) *Plant Diversity Maintains Soil Detritivore Activity Under Drought.* ***Global Change Biology*** 31(8): e70377; https://doi.org/10.1111/gcb.70377.

577 Sun X, Robinson JM, Delgado-Baquerizo M, Potapov A, Yao H, Zhu B, ... **Eisenhauer N**, … & Zhu YG (2025) *Unforeseen high continental-scale soil microbiome homogenization in urban greenspaces.* ***Nature Cities*** 2(8): 759-769; https://doi.org/10.1038/s44284-025-00294-y.

576 Zheng L, Ibáñez I, Williams LJ, Zhu K, Serrano-León H, Jensen J, …, **Eisenhauer N**, ... & Reich, PB (2025) *Neighbourhood diversity increases tree growth in experimental forests more in wetter climates but not in wetter years.* ***Nature Ecology & Evolution*** 9(10): 1812-1824; https://doi.org/10.1038/s41559-025-02805-5.

575 Köhler M, Castro Sánchez-Bermejo P, Hähn G, Ferlian O, **Eisenhauer N**, Wubet T, ... & Bruelheide H (2025) *Foliar Endophytic Fungal Communities Are Driven by Leaf Traits—Evidence From a Temperate Tree Diversity Experiment.* ***Ecology and Evolution*** 15(7): e71691; https://doi.org/10.1002/ece3.71691.

574 Meng B, Luo M, Loreau M, …, **Eisenhauer N**, … & Wang S (2025) *Stabilizing effects of biodiversity arise from species-specific dynamics rather than interspecific interactions in grasslands.* ***Nature Ecology & Evolutions*** 9: 1837–1847; https://doi.org/10.1038/s41559-025-02787-4.

573 Angst Š, Angst G, Mueller KE, … & **Eisenhauer N** (2025) *Un(der)explored links between plant diversity and particulate and mineral-associated organic matter in soil.* ***Nature Communications*** 16: 5548; https://doi.org/10.1038/s41467-025-60712-6.

572 Bönisch E, **Eisenhauer N**, Bassi L, Auge H, Friedlein H, Gleixner G, ... & Hines J (2025) *Resource inequality limits transfer of nutrients from soils to plants in experimental grassland.* ***Oikos*** 2025(10): e11103; https://doi.org/10.1002/oik.11103.

571 Li Y, Schuldt A, Bauhus J, …, **Eisenhauer N**, … & Liu X (2025) *The tree growth–herbivory relationship depends on functional traits across forest biodiversity*

experiments. ***Nature Ecology & Evolution*** 9: 2014–2024; https://doi.org/10.1038/s41559-025-02835-z.

570 Kong W, **Eisenhauer N**, Peñuelas J, Qiu L, Gou X, Song Y, ... & Wei X (2025). *Climate and soil pH modulate global negative effects of nitrogen enrichment on soil nematodes.* ***Soil Biology and Biochemistry*** 208: 109860; https://doi.org/10.1016/j.soilbio.2025.109860.

569 Hu X, Wu X, Xiang S, Chen Y, Jiang L, **Eisenhauer N**, ... & Sun S (2025). *Modest Experimental Warming Reduces Species Diversity and Biomass of Arthropods in a Tibetan Alpine Meadow.* ***Global Change Biology*** 31(6): e70277; https://doi.org/10.1111/gcb.70277.

568 Ristok C, Babin D, Bartkowski B, …, **Eisenhauer N***, Tebbe CC*, Xylander WER* (2025) *Towards a comprehensive assessment of soil biodiversity in Germany: status quo, challenges, and policy implications.* ***Soil Organisms*** 97(2): 143–157; https://doi.org/10.25674/446. *shared senior authorship.

567 Köhler M, Hähn G, Kanitz M, Ferlian O, **Eisenhauer N**, Wubet T, & Bruelheide H (2025) *The effects of tree diversity and neighborhood on phyllosphere fungal communities.* ***Fungal Ecology*** 76: 101440; https://doi.org/10.1016/j.funeco.2025.101440.

566 Kleemann J, Steinhoff-Knopp B, **Eisenhauer N**, Ristok C, Xylander WER, & Burkhard B (2025) *The unexplored links between soil, soil biodiversity, and soil-related ecosystem services.* ***Soil Organisms*** 97: 5-25; https://doi.org/10.14512/9783987263361.

565 Beugnon R, Eisenhauer N, Lochner A, …, & Sünnemann M (2025) *Sustainable land use enhances soil microbial respiration responses to experimental heat stress.* ***Global Change Biology*** 31: e70214; https://doi.org/10.1111/gcb.70214.

564 Chen Q, Blowes SA, Harpole WS, …, **Eisenhauer N**, …, & Chase J (2025) *Local nutrient addition drives plant diversity losses but not biotic homogenization in global grasslands.* ***Nature Communications*** 16: 4903; https://doi.org/10.1038/s41467-025-59166-7.

563 Ul Haq H, Singavarapu B, Hauer A, **Eisenhauer N**, Ferlian O, Bruelheide H, & Wubet T (2025) *Temperate forest soil microbiomes and their assembly processes are modulated by the interplay of co-existing tree species identity, diversity and their mycorrhizal type.* ***Journal of Sustainable Agriculture & Environment*** 4: e70064; https://doi.org/10.1002/sae2.70064.

562 Bondaruk VF, Xu C, Wilfahrt P, …, **Eisenhauer N**, …, & Hautier Y (2025) *Aridity modulates biomass changes following nutrient addition and extreme drought on globally distributed grasslands.* ***Nature Ecology & Evolution*** 9(6): 937-946; https://doi.org/10.1038/s41559-025-02705-8.

561 Bartkowski B, **Eisenhauer N**, Glante F, Lachmann C, Römbke J, Rillig MC, Ristok C, Schmidt A, & Babin D (2025) *The options of different actor groups to address drivers of soil biodiversity change.* ***Soil Organisms*** 97: 129-142; https://doi.org/10.25674/448.

560 Zhang P, Seabloom EW, Foo J, …, **Eisenhauer N**, …, & Borer ET (2025) *Dominant species predict plant richness and biomass in global grasslands.* ***Nature Ecology & Evolution*** 9: 924–936; https://doi.org/10.1038/s41559-025-02701-y.

559 Nouwen O, Rineau F, Kohout P, Baldrian P, **Eisenhauer N**, Beenaerts N, Thijs S, Vangronsveld J, & Soudzilovskaia NA (2025) *Towards understanding the impact of mycorrhizal fungal environments on the functioning of terrestrial ecosystems.* ***FEMS Microbiology Ecology*** 101: fiaf062; https://doi.org/10.1093/femsec/fiaf062.

558 Archidona-Yuste A, Ciobanu M, Kardol P, & **Eisenhauer N** (2025) *Divergent alpha and beta diversity trends of soil nematode fauna along gradients of environmental change in the Carpathian Ecoregion.* ***Communications Biology*** 8: 587; https://doi.org/10.1038/s42003-025-07994-0.

557 Ruess L, Kolb S, **Eisenhauer N**, & Ristok C (2025) *Soil biodiversity promotes key ecosystem functions by its complex structure and interactions – state and perspectives.* ***Soil Organisms*** 97(2): 115–128; https://doi.org/10.25674/450.

556 Hohberg K, Ristok R, **Eisenhauer N**, Tebbe CC, & Scheu S (2025) *Status and trends in soil biodiversity – a national survey of Germany.* ***Soil Organisms*** 97(2): 103–114; https://doi.org/10.25674/449.

555 Yi H, Ferlian O, Gauzens B, Rebollo R, Scheu S, Amyntas A, Ciobanu M, Potapov A, Salamon J-A, & **Eisenhauer N** (2025) *Belowground energy fluxes determine tree diversity effects on above- and belowground food webs.* ***Current Biology*** 35: 1-3; https://doi.org/10.1016/j.cub.2025.03.034.

554 Gauzens B, Thouvenot L, Srivastava DS, … **Eisenhauer N**, …, & Hines J (2025) *Tailoring interaction network types to answer different ecological questions.*

Nature Reviews Biodiversity 1: 480–489; https://doi.org/10.1038/s44358-025-00056-7.

553 Fay PA, Gherardi LA, Yahdjian L, … **Eisenhauer N**, …, & Wheeler GR (2025) *Interactions among nutrients govern the global grassland biomass–precipitation relationship.* ***PNAS*** 122: e2410748122; https://doi.org/10.1073/pnas.2410748122.

552 Philip L, Sünnemann M, Schädler M, Blagodatkaya E, Tarkka M, **Eisenhauer N**, Reitz T (2025) *Soil depth shapes the microbial response to land use and climate change in agroecosystems.* ***Applied Soil Ecology*** 209: 106025; https://doi.org/10.1016/j.apsoil.2025.106025.

551 Nelson RA, Sullivan LL, Hersch-Green EI, … **Eisenhauer N**, …, & Harrison SP (2025) *Forb diversity globally is harmed by nutrient enrichment but can be rescued by large mammalian herbivory.* ***Communications Biology*** 8: 444; https://doi.org/10.1038/s42003-025-07882-7.

550 Beugnon R, Albert G, Hähn G, …, & **Eisenhauer N** (2025) *Improving forest ecosystem functions by optimizing tree species spatial arrangement.* ***Nature Communications*** 16: 6286; https://doi.org/10.1038/s41467-025-61389-7.

549 Dieskau J, Hensen I, **Eisenhauer N**, Lachmuth S, Durka W, & Auge H (2025) *Plant-soil feedback in European grasslands is phylogenetically independent but affected by plant species origin.* ***Journal of Plant Ecology*** 18: rtaf021; https://doi.org/10.1093/jpe/rtaf021.

548 González AL, Merder J., Andraczek K, …, **Eisenhauer N**, …, Dézerald O (2025) *StoichLife: A Global Dataset of Plant and Animal Elemental Content.* ***Scientific Data*** 12: 569; https://doi.org/10.1038/s41597-025-04852-w.

547 Schnabel F, Guillemot J, Barry KE, …, **Eisenhauer N**, …, & Potvin C (2025) *Tree diversity increases carbon stocks and fluxes above- but not belowground in a tropical forest experiment.* ***Global Change Biology*** 31: e70089; https://doi.org/10.1111/gcb.70089.

546 Albracht C, Buscot F, **Eisenhauer N**, Gebler A, Herrmann S, Schmidt A, Tarkka M, & Goldmann K (2025) *Invertebrate decline has minimal effects on oak-associated microbiomes.* ***Environmental Microbiology*** 27: e70051; https://doi.org/10.1111/1462-2920.70051.

545 Schnabel F, Beugnon R, Yang B, …, **Eisenhauer N**, …, Ma K, & Bruelheide H (2025) *Tree diversity increases forest temperature buffering via enhancing*

canopy density and structural diversity. ***Ecology Letters*** 28: e70096; https://doi.org/10.1111/ele.70096.

544 Bassi L , Hennecke J, …, **Eisenhauer N**, …, & Weigelt A (2025) *Plant species richness promotes the decoupling of leaf and root defence traits while species-specific responses in physical and chemical defences are rare.* ***New Phytologist*** 246: 729–746; doi: 10.1111/nph.20434.

543 Spohn M, Bagchi S, … **Eisenhauer N**, …, & Seabloom EW (2025) *Interactive and unimodal relationships between plant biomass, abiotic factors, and plant diversity in global grasslands.* ***Communications Biology*** 8: Article number 97; https://doi.org/10.1038/s42003-025-07518-w.

542 Zhou G, **Eisenhauer N**, Du Z, Lucas-Borja ME, Zhai K, Berdugo M, Duan H, Wu H, Liu S, Revillini D, Sáez-Sandino T, Chai H, Zhou X, & Delgado-Baquerizo M (2025) *Fire-driven disruptions in global soil biochemical interactions.* ***Nature Communications*** 16: Article number 1190; https://doi.org/10.1038/s41467-025-56598-z.

541 Buzhdygan OY, Tietjen B, Petermann JS, **Eisenhauer N**, Hines J, Schmid B, Baldauf S, Ebeling A, Scherber C, Buchmann N, Borrett SR, de Kroon H, Weisser WW, & Meyer ST (2025) *Plant diversity facets differentially affect energy dynamics in grasslands depending on trophic contexts.* ***Ecological Monographs*** 95; e70004; https://doi.org/10.1002/ecm.70004.

540 Amyntas A, Gauzens B, Ciobanu M, …, **Eisenhauer N**, & Brose U (2025) *Shared community history strengthens plant diversity effects on below-ground multitrophic functioning.* ***Journal of Animal Ecology*** 94: 555-565; https://doi.org/10.1111/1365-2656.14241.

539 Madaj A-M, Huang Y, Ebeling A, Ertel L, …, & **Eisenhauer N** (2025) *JenaTron: An experimental approach to study the effects of plant history and soil history on grassland ecosystem functioning.* ***Journal of Visualized Experiments*** 117: e67496, doi:10.3791/67496.

538 Augusto L, Borelle R, …, **Eisenhauer N**, …, & Charru M (2025) *Widespread slow growth of acquisitive tree species.* ***Nature*** 640: 395–401; https://www.nature.com/articles/s41586-025-08692-x.

537 Bonfanti J, Potapov, …, **Eisenhauer N**, …, & Berg MP (2025) *Linking effect traits of soil fauna to processes of organic matter transformation.* ***Functional Ecology*** 39: 446-461; https://doi.org/10.1111/1365-2435.14720.

536 Wu D, Du E, **Eisenhauer N**, Mathieu J, & Chu C (2025) *Global soil engineering effects of termites, ants, and earthworms on ecosystem functions.* ***Nature*** 640: 120–129; https://www.nature.com/articles/s41586-025-08594-y.

535 Asato AEB, Ebeling A, Wirth C, **Eisenhauer N**, & Hines J (2025) *Seasonal shifts in plant diversity effects on aboveground-belowground phenological synchrony.* ***Journal of Ecology*** 113: 472-484; https://doi.org/10.1111/1365-2745.14470.

534 Pigot AL, Dee L, Richardson AJ, Cooper D, **Eisenhauer N**, Gregory RD, …, & Haegeman B (2025) *Macroecological rules predict how biomass scales with species richness in nature.* ***Science*** 387: 1272-1276; https://www.science.org/doi/10.1126/science.adq3278.

533 Farwig N, Sprenger PP, …, **Eisenhauer N**, …, & Mosbrugger V (2025) *Identifying major factors for success and failure of conservation programs in Europe.* ***Environmental Management*** 75: 425–443; https://doi.org/10.1007/s00267-024-02086-x.

532 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*** 39: 1441-1454; https://doi.org/10.1111/1365-2435.14651.

531 Wu M, Yang X, Reitz T, Blagodatskaya E, **Eisenhauer N**, Schädler M, & Schlüter S (2025) *Microhabitat properties explain variations in soil nematode communities across climate conditions in cropland, but not in grassland.* ***Soil Biology & Biochemistry*** 201: 109657; https://doi.org/10.1016/j.soilbio.2024.109657.

530 Hennecke J, Bassi L, Albracht C, Amyntas A, Bergmann J, **Eisenhauer N**, Fox A, Heimbold L, Heintz-Buschart A, Kuyper TW, Lange M, de Souza YPA, Rai A, Solbach MD, Mommer L, & Weigelt A (2025) *Plant species richness and the root economics space drive soil fungal communities.* ***Ecology Letters*** 28: e70032; https://doi.org/10.1111/ele.70032.

529 Asato AEB, Ebeling A, Wirth C, **Eisenhauer N**, & Hines J (2025) *Positive plant diversity effects on soil detritivore feeding activity and stability increase with ecosystem age.* ***Soil Biology & Biochemistry*** 200: 109637; https://doi.org/10.1016/j.soilbio.2024.109637.

2024 [73 papers]

528 Amyntas A, **Eisenhauer N**, Scheu S, Klarner B, …, & Brose U (2024) *Soil community history strengthens belowground multitrophic functioning across plant diversity levels in a grassland experiment.* ***Nature Communications*** 5: 10029; https://doi.org/10.1038/s41467-024-54401-z.

527 Morton JA, Arnillas CA, Biedermann L, Borer ET, Brudvig LA, Buckley YM, …, **Eisenhauer N**, …, & Hersch-Green EI (2024) *Genome size influences plant growth and biodiversity responses to nutrient fertilization in diverse grassland communities.* ***Plos Biology*** 22(12): e3002927; https://doi.org/10.1371/journal.pbio.3002927.

526 Stein G, Vemuri SK, Huang Y, Ebeling A, **Eisenhauer N**, Shadaydeh M, & Denzler J (2024) *Investigating the effects of plant diversity on soil thermal diffusivity using physics-informed neural networks.* ***Proceedings of the AAAI2024***, ICLR 2024 Workshop on AI4Differential Equations In Science; https://openreview.net/forum?id=7wKTS923Uc.

525 Xu S, **Eisenhauer N**, Zeng Z, Mo X, Ding Y, Lai DYF, & Wang J (2024) *Drivers organic recovery under forest restoration: a global meta-analysis.* ***Carbon Research*** 3: 80; https://doi.org/10.1007/s44246-024-00165-6.

524 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*** 75: e13584; https://doi.org/10.1111/ejss.13584.

523 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.

522 Sünnemann M, …, & **Eisenhauer N** (2024) Sustainable land use enhances microbial and herbivore controls in soil food webs in current and future climates. ***Global Change Biology*** 30: e17554; https://doi.org/10.1111/gcb.17554.

521 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*** 96(3): 145–150; https://doi.org/10.25674/434.

520 Farfan M, Potapov A & **Eisenhauer N** (2024). Rapid publication and broad communication of Soil Organisms. ***Soil Organisms*** 96(3): I; https://doi.org/10.25674/.

519 Knight CG, …, **Eisenhauer N**, …, & de Vries, FT (2024). Soil microbiomes show consistent and predictable responses to extreme events across climates. ***Nature*** 636: 690–696; https://doi.org/10.1038/s41586-024-08185-3.

518 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*** 10: eadq2654; .

517 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.

516 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.

515 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.

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 sdassociated with higher primary productivity across Europe. ***Nature Ecology & Evolution*** 8: 1847–1855; 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*** 8; 2037–2047; 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*** 8: 1877–1888; 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) *Metabolic potential of Nitrososphaera-associated clades.* ***ISME Journal***, 18(1), wrae086; https://doi.org/10.1093/ismejo/wrae086.

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*** 21, 2909–2935; https://doi.org/10.5194/bg-21-2909-2024.

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) *Synthesis of recovery patterns in microbial communities across environments.* ***Microbiome*** 12: 79; https://doi.org/10.1186/s40168-024-01802-3.

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, Bücker 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.

465 Yi H, **Eisenhauer N**, Austen JC, Rebollo R, Ray T, Bönisch E, von Oheimb G, Fichtner A, Schuldt A, Patoine G, & Ferlian O (2024) *Tree diversity and mycorrhizal type co-determine multitrophic ecosystem functions.* ***Journal of Ecology*** 112: 528-546; https://doi.org/10.1111/1365-2745.14252.

464 Potapov A, …, **Eisenhauer N,** …, & Scheu S (2024) *Global fine-resolution data on springtail abundance and community structure.* ***Scientific Data*** 11: 22; https://doi.org/10.1038/s41597-023-02784-x.

463 Depauw L, De Lombaerde E, Dhiedt E, Blondell H, Abdala-Roberts L, Auge H, Barsoum N, Bauhus J, Chu C, Damtew A, **Eisenhauer N**, Fagundes MV, Ganade G, Gendreau-Berthiaume B, Godbold D, Gravel D, Guillemot J, Hajek P, Hector A, Hérault B, Jactel H, Koricheva J, Kreft H, Liu X, Mereu S, Messier C, Muys B, Nock CA, Paquette A, Parker JD, Parker WC, Paterno GB, Perring MP, Ponette Q, Potvin C, Reich PB, Rewald B, Scherer-Lorenzen M, Schnabel F, Sousa-Silva R, Weih M, Zemp DC, Verheyen K, & Baeten L (2024) *Enhancing tree performance through species mixing: review of a quarter-century TreeDivNet experiments revealing research gaps and practical insights.* ***Current Forestry Reports*** 10: 1–20; https://doi.org/10.1007/s40725-023-00208-y.

462 Smith MD, Wilkins KD, … **Eisenhauer N**, …., & Zeiter M (2024) *Extreme drought impacts have been underestimated in grasslands and shrublands globally.* ***Proceedings of the National Academy of Sciences USA (PNAS)*** 121: e2309881120; https://doi.org/10.1073/pnas.2309881120.

461 Bassi L, Hennecke J, Albracht C, Broecher M, Solbach M, Schaller J, Doan VC, Wagner H, **Eisenhauer N**, Ebeling A, Meyer S, van Dam N, & Weigelt A (2024) *Uncovering the secrets of monoculture yield decline: trade-offs between leaf and*

root chemical and physical defence traits in a grassland experiment. ***Oikos*** 2024: e10061; https://doi.org/10.1111/oik.10061.

460 Chao A, Chiu C-H, Hu K-H, van der Plas F, Cadotte MW, Mitesser O, Thorn S, Mori AS, Scherer-Lorenzen M, **Eisenhauer N**, Bässler C, Delory BM, Feldhaar H, Fichtner A, Hothorn T, Peters MK, Pierick K, von Oheimb G, & Müller J (2024) *Hill-Chao numbers allow decomposing gammamultifunctionality into alpha and beta components.* ***Ecology Letters*** 27: e14336; https://doi.org/10.1111/ele.14336.

459 Huang Y, Stein G, Kolle O, Kübler K, Schulze E-D, Dong H, Eichenberg D, Gleixner G, Hildebrandt A, Lange M, Roscher C, Schielzeth H, Schmid B, Weigelt A, Weisser WW, Shadaydeh M, Denzler J, Ebeling A, & **Eisenhauer N** (2024) *Enhanced stability of grassland soil temperature by plant diversity.* ***Nature Geoscience*** 17: 44-50; https://www.nature.com/articles/s41561-023-01338-5.

458 Zeiss R, Briones MJI, Mathieu J, Lomba A, Dahlke J, Heptner L-F, Salako G, **Eisenhauer N**, & Guerra CA (2024) *Climate effects on the distribution and conservation of commonly observed European earthworms.* ***Conservation Biology*** 38: e14187; https://doi.org/10.1111/cobi.14187.

457 Schwarz R, **Eisenhauer N**, Ferlian O, Maestre F, Rosenbaum B, Uthe H, & Thouvenot L (2024) *Invasive earthworms modulate native plant trait expression and competition.* ***Oikos*** 2024: e10008; https://doi.org/10.1111/oik.10008.

456 Argens L, Weisser WW, Ebeling A, **Eisenhauer N**, Lange M, Oelmann Y, Roscher C, Schielzeth H, Schmid B, Wilcke W, & Meyer S (2024) *Relationships between ecosystem functions are temporally variable and driven by plant species richness and plant community composition.* ***Oikos*** 2024: e10096; https://doi.org/10.1111/oik.10096.

2023 [53 papers]

455 Eisenhauer N, Xylander WER, & Potapov A (2023) *Spotlight on the unseen majority – the way to open community-driven publishing for global soil biodiversity.* ***Soil Organisms*** 95: 173-177; DOI 10.25674/so95iss3id358.

454 Siebert J, Sünnemann M, Hautier Y, Risch AC, Bakker JD, Biedermann L, Blumenthal DM, Borer ET, Bugalho MN, Broadbent AAD, Caldeira MC, Cleland E, Davies KF, Eskelinen A, Hagenah N, Knops JMH, MacDougall AS, McCulley

RL, Moore JL, Power SA, Price JN, Seabloom EW, Standish R, Stevens CJ, Zimmermann S, & **Eisenhauer N** (2023*) Drivers of soil microbial and detritivore activity across global grasslands. **Communications Biology*** 6: 1220; https://www.nature.com/articles/s42003-023-05607-2.

453 Sanaei A, Herrmann H, Alshaabi L, Beck J, Ferlian O, Wadinga Fomba K, Haferkorn S, van Pinxteren M, Quaas J, Quosh J, Rabe R, Wirth C, **Eisenhauer N**, & Weigelt A (2023) *Changes in biodiversity impact atmospheric chemistry and climate through plant volatiles and particles. **Communications Earth & Environment*** 4: 445; https://doi.org/10.1038/s43247-023-01113-9.

452 Ristok C, **Eisenhauer N**, Weinhold A, & van Dam NM (2023) *Plant diversity and soil legacy independently affect the plant metabolome and induced responses following herbivory. **Ecology & Evolution***, 13: e10667; https://doi.org/10.1002/ece3.10667.

451 Jochum M, Zizka VMA, Scheu S, **Eisenhauer N**, & Pollierer MM (2023) *Global change in above-belowground multitrophic grassland communities. **Research Ideas and Outcomes*** 9: e113960; https://doi.org/10.3897/rio.9.e113960.

450 Sünnemann M, Beugnon R, Breitkreuz C, Buscot F, Cesarz S, Jones A, Lehmann A, Lochner A, Orgiazzi A, Reitz T, Rillig MC, Schädler M, Smith LC, Zeuner A, Guerra CA, & **Eisenhauer N** (2023) *Climate change and cropland management compromise soil integrity and multifunctionality. **Communications Earth & Environment*** 4: article no. 394; https://www.nature.com/articles/s43247-023-01047-2.

449 Eisenhauer N, Hines J, & Rillig MC (2023) *Reply: functional similarity is more appropriate than functional redundancy. **npg Biodiversity*** 2: article no. 24; https://www.nature.com/articles/s44185-023-00030-6.

448 Leonard SJ, Dirzo R, **Eisenhauer N**, Rebollo R, Schädler M, & Ferlian O (2023) *Explaining variation in plant-herbivore associational effects in a tree biodiversity experiment. **Journal of Ecology*** 111: 2694-2709; https://doi.org/10.1111/1365-2745.14212.

447 Spohn M, Bagchi S, Biedermann LA, Borer ET, Bråthen KA, Bugalho MN, Caldeira MC, Carford JA, Collins SL, **Eisenhauer N**, Hagenah N, Haider S, Hautier Y, Knops JMH, Koerner SE, Laanisto L, Lekberg Y, Martina JP, Martinson H, McCulley RL, Peri PL, Macek P, Power SA, Risch AC, Roscher C, Seabloom EW, Stevens C, Veen GF (Ciska), Virtanen R, & Yahdjian L (2023) *The positive*

effect of plant diversity on soil carbon depends on climate. ***Nature Comminucations*** 14: article no. 6624; https://doi.org/10.1038/s41467-023-42340-0.

446 Warner E, Cook-Patton SC, Lewis OT, Brown N, Koricheva J, **Eisenhauer N**, Ferlian O, Gravel D, Hall JS, Jactel H, Mayoral C, Meredieu C, Messier C, Paquette A, Parker WC, Potvin C, Reich PB, & Hector A (2023) *Young mixed planted forests store more carbon than monocultures – a meta-analysis.* ***Frontiers in Forest and Global Change*** 6: 1226514; https://www.frontiersin.org/articles/10.3389/ffgc.2023.1226514.

445 Sáez-Sandino T, García-Palacios P, Maestre FT, Plaza C, Guirado E, Singh BK, Wang J, Cano-Díaz C, **Eisenhauer N**, Gallardo A, & Delgado-Baquerizo M (2023) *The soil microbiome governs the response of respiration to warming across the globe.* ***Nature Climate Change*** 13: 1382-1387; https://www.nature.com/articles/s41558-023-01868-1.

444 Chen Q, Wang S, Borer ET, Bakker JD, Seabloom EW, Harpole WS, **Eisenhauer N**, Lekberg Y, Buckley YM, Catford JA, Roscher C, Donohue I, Power SA, Daleo P, Ebeling A, Knops JMH, Martina JP, Eskelinen A, Morgan JW, Risch AC, Caldeira MC, Bugalho MN, Virtanen R, Barrio IC, Niu Y, Jentsch A, Stevens CJ, Gruner DS, MacDougall AS, Alberti J, & Hautier Y (2023) *Multidimensional responses of grassland stability to eutrophication.* ***Nature Communications*** 14: article number 6375; https://www.nature.com/articles/s41467-023-42081-0.

443 Wilfahrt PA; Seabloom EW, Bakker JD, Biedermann L, Bugalho MN, Cadotte MW, Caldeira MC, Catford JA, Chen Q, Donohue I, Ebeling A, **Eisenhauer N**, Haider S, Heckman RW, Jentsch A, Koerner SE, Komatsu KJ, Laungani R, MacDougall A, Martina JP, Martinson H, Moore JL, Niu Y, Ohlert T, Olde Venterink H, Orr D, Peri P, Pos E, Price J, Raynaud X, Ren Z, Roscher C, Smith NG, Stevens CJ, Sullivan LL, Tedder M, Tognetti P, Veen C, Wheeler G, Young AL, Young H, & Borer ET (2023) *Nothing lasts forever: dominant species decline under rapid environmental change in global grasslands.* ***Journal of Ecology*** 111: 2472-2482; https://doi.org/10.1111/1365-2745.14198.

442 Hennecke J, Bassi L, Mommer L, Albracht C, Bergmann J, **Eisenhauer N**, Guerra CA, Heintz-Buschart A, Kuyper TW, Lange M, Solbach M, & Weigelt A (2023) *Rhizosphere fungal guild responses to the root economics space.* ***New Phytologist*** 240: 2035-2049; https://doi.org/10.1111/nph.19261.

441 Ray T, Delory BM, Beugnon R, Bruelheide H, Cesarz S, **Eisenhauer N**, Ferlian O, Quosh J, von Oheimb G, & Fichtner A (2023) *Tree diversity increases productivity through enhancing structural complexity across mycorrhizal types.* ***Science Advances*** 9: eadi2362; https://www.science.org/doi/10.1126/sciadv.adi2362.

440 Martins IS, Schrodt F, Blowes SA, Bates AE, Bjorkman AD, Brambilla V, Carvajal-Quintero J, Chow CFY, Daskalova GN, Edwards K, **Eisenhauer N**, Field R, Fontrodona-Eslava A, Henn JJ, van Klink R, Madin JS, Magurran AE, McWilliam M, Moyes F, Pugh B, Sagouis A, Trindade-Santos I, McGill B, Chase JM, & Dornelas M (2023) *Widespread shifts in body size within populations and assemblages.* ***Science*** 381: 1067-1071; https://www.science.org/doi/10.1126/science.adg6006.

439 **Eisenhauer N**, Ochoa-Hueso R, Huang Y, Barry KE, Gebler A, Guerra CA, Hines J, Jochum M, Andraczek K, Bucher SF, Buscot F, Ciobanu M, Chen H, Junker R, Lange M, Lehmann A, Rillig M, Römermann C, Ulrich J, Weigelt A, Schmidt A, Türke M (2023) *Ecosystem consequences of invertebrate decline.* ***Current Biology*** 33: 1–10; https://doi.org/10.1016/j.cub.2023.09.012.

438 Cesarz S et al. (2023) *The effect of artificial light at night (ALAN) on belowground community composition and functions.* ***Philosophical Transactions of the Royal Society B*** 378: 20220366; https://doi.org/10.1098/rstb.2022.0366.

437 Elliott T, Thompson A, Klein A-M, Albert C, **Eisenhauer N**, Jansen F, Schneider A, Sommer M, Straka T, Settele J, Sporbert M, Tanneberger F, & Mupepele A-C (2023) *Abandoning grassland management negatively influences plant but not bird or insect biodiversity in Europe.* ***Conservation Practice and Practice*** 5: e13008; https://doi.org/10.1111/csp2.13008.

436 Bucher SF, Uhde L, Weigelt A, Cesarz S, **Eisenhauer N**, Gebler A, Kyba C, Römermann C, Shatwell T, & Hines J (2023) *Artificial light at night (ALAN) decreases plant diversity and performance in experimental grassland communities.* ***Philosophical Transactions of the Royal Society B*** 378: 20220358; https://doi.org/10.1098/rstb.2022.0358.

435 Amyntas A, Berti E, Gauzens B, Albert G, Yu W, Werner AS, **Eisenhauer N**, & Brose U (2023) *Niche complementarity among plants and animals can alter the biodiversity–ecosystem functioning relationship.* ***Functional Ecology*** 37: 2652-2665; https://doi.org/10.1111/1365-2435.14419.

434 Dyer A et al. (2023) *Insect communities under skyglow: diffuse nighttime illuminance induces spatiotemporal shifts in movement and predation.* ***Philosophical Transactions of the Royal Society B*** 378: 20220359; https://doi.org/10.1098/rstb.2022.0359.

433 Bei Q, Reitz T, Schnabel B, **Eisenhauer N**, Schädler M, Buscot F, & Heintz-Buschart A (2023) *Extreme summers impact cropland and grassland soil microbiomes.* ***ISME Journal*** 17: 1589-1600; https://doi.org/10.1038/s41396-023-01470-5.

432 Beugnon R, **Eisenhauer N**, Bruelheide H, Davrinche A, Du J, Haider S, Haehn G, Saadani M, Singavarapu B, Sünnemann M, Thouvenot L, Wang Y, Wubet T, Xue K, & Cesarz S (2023) *Tree diversity effects on litter decomposition are mediated by litterfall and microbial processes.* ***Oikos*** 10: e09751; https://doi.org/10.1111/oik.09751.

431 Beaumelle L, Tison L, **Eisenhauer N**, Hines J, Malladi S, Pelosi C, Thouvenot L, & Phillips HRP (2023) *Pesticide effects on soil fauna communities—A meta-analysis.* ***Journal of Applied Ecology*** 60: 1239-1253; https://doi.org/10.1111/1365-2664.14437.

430 Eisenhauer N, Angst G, Asato AEB, Beugnon R, Bönisch E, Cesarz S, Dietrich P, Jurburg SD, Madaj A-M, Reuben RC, Ristok C, Sünnemann M, Yi H, Guerra CA, & Hines J (2023) *The heterogeneity-diversity-system performance nexus.* ***National Science Review*** 10: nwad109; https://doi.org/10.1093/nsr/nwad109.

429 Siles JA, Vera A, … **Eisenhauer N**, …, & Bastida F (2023) *Land-use- and climate-mediated variations in soil bacterial and fungal biomass across Europe and their driving factors.* ***Geoderma*** 434: 116474; https://doi.org/10.1016/j.geoderma.2023.116474.

428 Maciá-Vicente JG, Francioli D, Weigelt A, Albracht C, Barry KE, Buscot F, Ebeling A, **Eisenhauer N**, Hennecke J, Heintz-Buschart A, van Ruijven J, & Mommer L (2023) *The structure of root-associated fungal communities is related to the long-term effects of plant diversity on productivity.* ***Molecular Ecology*** 32: 3763-3777; https://doi.org/10.1111/mec.16956.

427 Yin R, Qin W, Wang X, Xie D, Wang H, Zhao H, Zhang Z, He J-S, Schädler M, Kardol P, **Eisenhauer N**, & Zhu B (2023) *Experimental warming causes mismatches in alpine plant-microbe-fauna phenology.* ***Nature Communications*** 14: 2159; https://doi.org/10.1038/s41467-023-37938-3.

426 Eisenhauer N, Hines J, Maestre F, & Rillig MC (2023) *Reconsidering functional redundancy in biodiversity research.* ***Biodiversity*** 2: article no. 9; https://doi.org/10.1038/s44185-023-00015-5.

425 Asato AEB, Wirth C, **Eisenhauer N**, & Hines J (2023) *On the phenology of soil organisms: current knowledge and future steps.* ***Ecology & Evolution*** 13: e10022; https://doi.org/10.1002/ece3.10022.

424 Heklau H, Schindler N, **Eisenhauer N**, Ferlian O, & Bruelheide H (2023) *Temporal variation of mycorrhization rates in a tree diversity experiment.* ***Ecology & Evolution*** 13: e10002; https://doi.org/10.1002/ece3.10002.

423 Albracht C, **Eisenhauer N**, Vogel A, Wagg C, Buscot F, & Heintz-Buschart (2023) *Effects of recurrent summer droughts on arbuscular mycorrhizal and total fungal communities in experimental grasslands differing in plant diversity and community composition.* ***Frontiers in Soil Science*** 3: 1129845; https://doi.org/10.3389/fsoil.2023.1129845.

422 Terlau JF, Brose U, **Eisenhauer N**, Amyntas A, Boy T, Dyer A, Gebler A, Hof C, Liu T, Scherber C, Schlägel UE, Schmidt A, & Hirt MR (2023) *Microhabitat conditions remedy heat stress effects on insect activity.* ***Global Change Biology*** 29: 3747-3758; https://doi.org/10.1111/gcb.16712.

421 Bakker JD, Price JN, Henning JA, … **Eisenhauer N**, …, & Wardle GM (2023) *Compositional variation in grassland plant communities.* ***Ecosphere*** 14: e4542; https://doi.org/10.1002/ecs2.4542.

420 Heimburger B, Klein A, Roth A, Scheu S, **Eisenhauer N**, & Schaefer I (2023) *Population structure and genetic variance among local populations of a non-native earthworm species in Minnesota, USA.* ***Biological Invasions*** 25: 2361–2375; https://doi.org/10.1007/s10530-023-03048-w.

419 Risch AC, Zimmermann S, Schütz M, Borer ET, Broadbent AAD, Caldeira MC, Davies KF, **Eisenhauer N**, Eskelinen A, Fay PA, Hagedorn F, Knops JMH, Lembrechts JJ, MacDougall AS, McCulley RL, Melbourne BA, Moore JL, Power SA, Seabloom EW, Silviera ML, Virtanen R, Yahdjian L, & Ochoa-Hueso R (2023) *Drivers of the microbial metabolic quotient across global grasslands.* ***Global Ecology & Biogeography*** 32: 904-918; https://doi.org/10.1111/geb.13664.

418 Luo S, Phillips RP, Jo I, Fei S, Liang J, Schmid B, & **Eisenhauer N** (2023) *Higher productivity in forests with mixed mycorrhizal strategies.* ***Nature Communications*** 14: 1377; https://doi.org/10.1038/s41467-023-36888-0.

417 Daleo P, Alberti J, Chaneton EJ, Iribarne O, Tognetti PM, Bakker JD, Borer ET, Bruschetti M, MacDougall AS, Pascual J, Sankaran M, Seabloom EW, Wang S, Bagchi S, Brudvig LA, Catford JA, Dickman CR, Dickson TL, Donohue I, **Eisenhauer N**, Gruner DS, Haider S, Jentsch A, Knops JMH, Lekberg Y, McCulley RL, …, & Hautier Y (2023) *Environmental heterogeneity modulates the effect of plant diversity on the spatial varia-bility of grassland biomass.* ***Nature Communications*** 14: 1809; https://doi.org/10.1038/s41467-023-37395-y.

416 Singavarapu B, Du J, Beugnon R, Cesarz S, **Eisenhauer N**, Xue K, Wang Y, Bruelheide H, & Wubet T (2023) *Functional potential of soil microbial communities and their subcommunities varies with tree mycorrhizal type and tree diversity.* ***Microbiology Spectrum*** 11: e0457822; https://doi.org/10.1128/spectrum.04578-22.

415 Lange M, **Eisenhauer N**, Chen H, & Gleixner G (2023) *Increased soil carbon storage through plant diversity strengthens with time and extends into the subsoil.* ***Global Change Biology*** 29: 2627–2639; https://doi.org/10.1111/gcb.16641.

414 Dietrich P, **Eisenhauer N**, & Roscher C (2023) *Linking plant diversity–productivity relationships to plant functional traits of dominant species and changes in soil properties in 15-year-old experimental grasslands.* ***Ecology & Evolution*** 13: e9883; https://doi.org/10.1002/ece3.9883.

413 Gottschall F, Cesarz S, Auge H, Kovach KR, Nock CA, & **Eisenhauer N** (2023) *Tree community composition stabilizes ecosystem functions in response to drought.* ***Ecosphere*** 14: e4486; https://doi.org/10.1002/ecs2.4486.

412 Potapov AM, Guerra CA, van den Hoogen J, …, Crowther TW, **Eisenhauer N**, & Scheu S (2023) *Globally invariant metabolism but density-diversity mismatch in springtails.* ***Nature Communications*** 14: 674; https://doi.org/10.1038/s41467-023-36216-6.

411 Müller J, Mitesser O, Cadotte MW, van der Plas F, Mori A, Ammer C, Chao A, Scherer-Lorenzen M, Baldrian P, Bässler C, Biedermann P, Cesarz S, Claßen A, Delory BM, Feldhaar H, Fichtner A, Hothorn T, Kuenzer C, Peters MK, Pierick K, Schmitt T, Schuldt B, Seidel D, Six D, Steffan-Dewenter I, Thorn S, von Oheimb G, Wegmann M, Weisser WW, & **Eisenhauer N** (2023) *Enhancing the structural diversity between forest patches – a concept and real-world experiment to study biodiversity, multifunctionality and forest resilience across spatial scales.* ***Global Change Biology*** 29: 1437-1450; https://doi.org/10.1111/gcb.16564.

410 Han X, Zhou G, Luo Q, Ferlian O, Zhou L, Meng J, Qi Y, Pei J, He Y, Lui R, Du Z, Long J, Zhou X, & **Eisenhauer N** (2023) *Plant biomass responses to elevated CO_2 aremediated by phosphorus uptake.* ***Science of the Total Environment*** 863: 160775; http://dx.doi.org/10.1016/j.scitotenv.2022.160775.

409 Beugnon R, Bu W, Bruelheide H, Davrinche A, Du J, Haider S, Kunz M, von Oheimb G, Perles-Garcia MD, Saadani M, Scholten T, Seitz S, Singavarapu B, Trogisch S, Wang Y, Wubet T, Xue K, Yang B, Cesarz S, & **Eisenhauer N** (2023) *Abiotic and biotic drivers of scale-dependent tree trait effects on soil microbial biomass and soil carbon concentration.* ***Ecological Monographs*** 93: e1563; https://doi.org/10.1002/ecm.1563.

408 van der Plas F, Schröder-Georgi T, Weigelt A, Barry K, Meyer ST, …, **Eisenhauer N**, …, & Wirth C (2023) *Reply to: Plant traits alone are good predictors of ecosystem properties when used carefully.* ***Nature Ecology & Evolution*** 7: 335–336; https://doi.org/10.1038/s41559-022-01957-y.

407 Reuben RC, Langer D, **Eisenhauer N**, & Jurburg SD (2023) *Universal drivers of cheese microbiomes.* ***iScience*** 26: 105744; https://doi.org/10.1016/j.isci.2022.105744.

406 Ristok C, Weinhold A, Ciobanu M, Poeschl Y, Roscher C, Vergara F, **Eisenhauer N***, & van Dam NM* (2023) *Plant diversity effects on herbivory are related to soil biodiversity and plant chemistry.* ***Journal of Ecology*** 111: 412–427. https://doi.org/10.1111/1365-2745.14032. * senior authors.

405 Antunes AC, Gauzens B, Brose U, Potapov AM, Jochum M, Santini L, **Eisenhauer N**, Ferlian O, Cesarz S, Scheu S, & Hirt MR (2023) *Environmental drivers of local abundance-mass scaling in soil animal communities.* ***Oikos*** 2023: 2023: e09735; https://doi.org/10.1111/oik.09735.

404 Dietrich P, Ferlian O, Huang Y, Luo S, Quosh J, & **Eisenhauer N** (2023) *Tree diversity effects on productivity depend on mycorrhizae and life strategies in a temperate forest experiment.* ***Ecology*** 104: e3896; https://doi.org/10.1002/ecy.3896.

403 Isbell F, Balvandera P, Mori AS, He J-S, Bullock JM, … **Eisenhauer N**,… (2023) *Expert perspectives on global biodiversity loss and its drivers and impacts on people.* ***Frontiers in Ecology and the Environment*** 21: 94–103; https://doi.org/10.1002/fee.2536.

2022 [51 papers]

402 Wagg C, Roscher C, Weigelt A, Vogel A, Ebeling A, de Luca E, Roeder A, Kleinspehn C, Temperton VM, Meyer ST, Scherer-Lorenzen M, Buchmann N, Fischer M, Weisser WW, **Eisenhauer N**, & Schmid B (2022) *Biodiversity-stability relationships strengthen over time in a long-term grassland experiment.* ***Nature Communications*** 13: 7752; https://doi.org/10.1038/s41467-022-35189-2.

401 Frey B, Moser B, Tytgat B, Zimmermann S, Alberti J, Biedermann LA, Borer ET, Broadbent AAD, Caldeira MC, Davies KF, **Eisenhauer N**, …, & Risch AC (2022) *Long-term N-addition alters the community structure of functionally important N-cycling soil microorganisms across global grasslands.* ***Soil Biology & Biochemistry*** 176: 108887; https://doi.org/10.1016/j.soilbio.2022.108887.

400 Mahecha MD, Bastos A, Bohn FJ, **Eisenhauer N**, Feilhauer H, Hartmann H, Hickler T, Kalesse-Los H, Migliavacca M, Otto FEL, Peng J, Quaas J, Tegen I, Weigelt A, Wendisch M, & Wirth C (2022) *Biodiversity loss and climate extremes – study the feedbacks.* ***Nature*** 612: 30-32; https://doi.org/10.1038/d41586-022-04152-y.

399 Delgado-Baquerizo M, Hu H-W, Maestre MT, Guerra CA, **Eisenhauer N**,…, & He J-Z (2022) *The global distribution and environmental drivers of the soil antibiotic resistome.* ***Microbiome*** 10: 219; https://doi.org/10.1186/s40168-022-01405-w.

398 Desie E, Zuo J, Verheyen K, Djukic I, Van Meerbeek K,…, **Eisenhauer N**,…, & Muys B (2022) *Disentangling drivers of litter decomposition in a multi-continent network of tree diversity experiments.* ***Science of the Total Environment*** 857: 159717; https://doi.org/10.1016/j.scitotenv.2022.159717.

397 Liu T, Wang X, Zhang W, **Eisenhauer N**, Shao Y, Zhao J, Li J, He X, Tao L, Fu S, & Lu X (2022) *Earthworms regulate the nematode community by directly enhancing the bacterial-based energy channel rather than through the effect of casts.* ***Pedogiologia*** 95: 150843; https://doi.org/10.1016/j.pedobi.2022.150843.

396 Maestre FT, Le Bagousse-Pinguet Y, Delgado-Baquerizo M, Eldridge DJ, Saiz H, Berdugo M,…, **Eisenhauer N**,…, Singh BK, & Gross N (2022) *Grazing and ecosystem service delivery in global drylands.* ***Science*** 378: 915-920; DOI: 10.1126/science.abq4062.

395 Ladouceur E, Blowes S, Chase J, Clark A, Garbowski M, Alberti J, … **Eisenhauer N**,… & Harpole S (2022) *Linking changes in species composition and biomass in a globally distributed grassland experiment.* ***Ecology Letters*** 25: 2699-2712; https://doi.org/10.1111/ele.14126.

394 Gruss I, Yin R, Siebert J, **Eisenhauer N**, & Schädler M (2022) *The responses of Collembola biomass to climate and land-use changes vary with life form.* ***Soil & Tillage Research*** 225: 105541; https://doi.org/10.1016/j.still.2022.105541.

393 **Eisenhauer N**, Bender SF, Calderón-Sanou I, de Vries FT, Lembrechts JJ, Thuiller W, Wall DH, Zeiss R, Bahram M, Beugnon R, Burton VJ, Crowther TW, Delgado-Baquerizo M, Geisen S, Kardol P, Krashevska V, Martínez-Muñoz CA, Patoine G, Seeber J, Soudzilovskaia NA, Steinwandter M, Sünnemann M, Sun X, van der Heijden MGA, Guerra CA, & Potapov A (2022) *Frontiers in soil ecology—Insights from the World Biodiversity Forum 2022.* ***Journal of Sustainable Agriculture & Environment*** 1: 245-261; https://doi.org/10.1002/sae2.12031.

392 Wang Y, Du J, Pang Z, Liu Y, Xue K, Hautier Y, Zhang B, Tang B, Jiang L, Ji B, Xu X, Zhang J, Hu R, Zhou S, Wang F, Che R, Wang D, Zhou C, Cui X, **Eisenhauer N**, & Hao Y (2022) *Unimodal productivity-biodiversity relationship along the gradient of multidimensional resources across Chinese grasslands.* ***National Science Review*** 9: nwac165; https://doi.org/10.1093/nsr/nwac165.

391 **Eisenhauer N** (2022) *A walk in the office.* ***Science*** 377: 6611; https://www.science.org/doi/10.1126/science.ade6972.

390 Zanne AE, Flores-Moreno H, Powell JR, Cornwell WK, Dalling JW, … **Eisenhauer N**, …, & Zalamea P-C (2022) *Termite sensitivity to temperature affects global wood decay rates.* ***Science*** 377: 1440-1440; https://www.science.org/doi/10.1126/science.abo3856.

389 Mathieu J, Antunes AC, Barot S, Bonato Asato AE, Bartz MLC, Brown GG, Calderon-Sanou I, Decaëns T, Fonte SJ, Ganault P, Gauzens B, Gongalsky KB, Guerra CA, Hengl T, Lavelle P, Marichal R, Mehring H, Peña-Venegas CP, Castro D, Potapov A, Thébault E, Thuiller W, Witjes M, Zhang C, & **Eisenhauer N** (2022) *sOilFauna - a global synthesis effort on the drivers of soil macrofauna communities and functioning.* ***Soil Organisms*** 94: 111-126; https://doi.org/10.25674/so94iss2id282.

388 Jurburg S, **Eisenhauer N**, Buscot F, Chatzinotas A, Chaudhari N, Heintz-Buschart A, Kallies R, Küsel K, Litchman E, Macdonald C, Müller S, Reuben RC, da Rocha UN, Panagiotou G, Rillig MC, & Singh BK (2022) *Potential of microbiome-based solutions for agri-food systems.* ***Nature Food*** 3: 557–560; https://www.nature.com/articles/s43016-022-00576-x.

387 Guerra CA, Berdugo M, Eldridge DJ, **Eisenhauer N**, Singh BK, Cui H, Abades S, Alfaro FD, Bamigboye AR, Bastida F, Blanco-Pastor JL, de los Ríos A, Durán J, Grebenc T, Illán JG, Liu Y-R, Makhalanyane TP, Mamet S, Molina-Montenegro MA, Moreno JL, Mukherjee A, Nahberger TU, Peñaloza-Bojacá GF, Plaza C, Picó S, Verma JK, Rey A, Rodríguez A, Tedersoo L, Teixido AL, Torres-Díaz C, Trivedi P, Wang J, Wang L, Wang J, Zaady E, Zhou X, Zhou X-Q, & Delgado-Baquerizo M (2022) *Global hotspots for soil nature conservation.* ***Nature*** 610: 693–698; https://www.nature.com/articles/s41586-022-05292-x.

386 Phillips HRP, Cameron EK, & **Eisenhauer N** (2022) *Illuminating biodiversity changes in the "Black Box".* ***Research Ideas & Outcomes*** 8: e87143; https://riojournal.com/article/87143/.

385 Zhou G, Lucas-Borja ME, **Eisenhauer N**, Eldridge DJ, Liu S, & Delgado-Baquerizo (2022) *Understorey biodiversity supports multiple ecosystem services in mature Mediterranean forests.* ***Soil Biology & Biochemistry*** 172: 108774; https://doi.org/10.1016/j.soilbio.2022.108774.

384 Sasaki T, Ishii NI, Makishima D, Sutou R, Goto A, Kawai Y, Taniguchi H, Okano K, Matsuo A, Lochner A, Cesarz S, Suyama Y, Hikosaka K, & **Eisenhauer N** (2022) *Plant and microbial community composition jointly determine moorland multifunctionality.* ***Journal of Ecology*** 110: 2507-2521; https://doi.org/10.1111/1365-2745.13969.

383 Yin R, Kardol P, **Eisenhauer N**, & Schädler M (2022) *Land-use intensification reduces soil macrofauna biomass at the community but not individual level.* ***Agriculture, Ecosystems and Environment*** 337: 108079; https://doi.org/10.1016/j.agee.2022.108079.

382 Patoine G, **Eisenhauer N**, Cesarz S, Phillips HRP, Xu X, Zhang L, & Guerra CA (2022) *Drivers and trends of global soil microbail carbon over two decades.* ***Nature Communications*** 13: 4195; https://www.nature.com/articles/s41467-022-31833-z.

381 Ferlian O, Cesarz S, Lochner A, Potapov A, Thouvenot L, & **Eisenhauer N** (2022) *Earthworm invasion shifts trophic niches of ground-dwelling invertebrates in a North American forest*. ***Soil Biology & Biochemistry*** 171: 108730, https://doi.org/10.1016/j.soilbio.2022.108730.

380 Vázquez E, Schleuss P-M, Borer BT, Bugalho MN, Caldeira MC, **Eisenhauer N**, Eskelinen A, Fay PA; Haider S, Jentsch A, Kirkman KP, McCulley RL, Peri PL, Price J, Richards AE, Risch AC, Roscher C, Schütz M, Seabloom EW, Standish RJ, Stevens CJ, Tedder MJ, Virtanen R, & Spohn M (2022) *Nitrogen but not phosphorous addition affects symbiotic N_2 fixation in grasslands located on four continents.* ***Plant & Soil*** 478: 689–707; https://doi.org/10.1007/s11104-022-05498-y.

379 Eisenhauer N, Bonfante P, Buscot F, Cesarz S, Guerra CA, Heintz-Buschart A, Hines J, Patoine G, Rillig MC, Schmid B, Verheyen K, Wirth C, & Ferlian O (2022) *Biotic interactions as mediators of context-dependent biodiversity-ecosystem functioning relationships.* ***Research Ideas and Outcomes*** 5: e47042; https://doi.org/10.3897/rio.5.e47042.

378 Zeiss R, **Eisenhauer N**, Orgiazzi A, Rillig M, Buscot F, Jones A, Lehmann A, Reitz T, Smith L, & Guerra CA (2022) *Challenges of and opportunities for protecting European soil biodiversity.* ***Conservation Biology*** 36: e13930; https://doi.org/10.1111/cobi.13930.

377 Chen Y, Vogel A, Wagg C, Xu T, Iturrate Garcia M, Scherer-Lorenzen M, Weigelt A, **Eisenhauer N**, & Schmid B (2022) *Drought memory increases species complementarity in response to a new drought in experimental plant communities.* ***Nature Communications*** 13: Article number: 3217; https://www.nature.com/articles/s41467-022-30954-9.

376 Angst G, Frouz J, van Groenigen J-W, Scheu S, Kögel-Knabner I*, & **Eisenhauer N*** (2022) *Earthworms as catalysts in the formation and stabilization of soil microbial necromass.* ***Global Change Biology*** 28: 4775-4782; https://doi.org/10.1111/gcb.16208.

375 Potapov A,… **Eisenhauer N**,… (2022) *Global monitoring of soil animal communities using a common methodology.* ***Soil Organisms*** 94: 55-68*;* https://doi.org/10.25674/so94iss1id178.

374 Dietrich P, Schumacher J, **Eisenhauer N**, & Roscher C (2022) *Eco-evolutionary feedbacks modulate plant responses to global change depending on plant*

diversity and species identity. ***eLife*** 11: e74054; https://doi.org/10.7554/eLife.74054.

373 Klusmann C, Cesarz S, Ciobanu M, Ferlian O, Jochum M, Schädler M, Scheu S, Sünnemann M, Wall D, & **Eisenhauer N** (2022) *Climate-change effects on the sex ratio of free-living soil nematodes – perspective and prospect*. ***Soil Organisms*** 94: 15-28*;* https://doi.org/10.25674/so94iss1id174.

372 Clark A, **Eisenhauer N**, & Tilman D (2022) *Experimental warming weakens positive plant diversity effects on pitfall trap sampled ant diversity.* ***Soil Organisms*** 94: 41-53*;* https://doi.org/10.25674/so94iss1id177.

371 Stolze K, Barnes AD, **Eisenhauer N**, & Totsche KU (2022) *Depth-differntiated, multivariate control of biopore number under different land-use practices.* ***Geoderma*** 418: 115852; https://doi.org/10.1016/j.geoderma.2022.115852.

370 Guimarães-Steinicke C, Weigelt A, Ebeling A, **Eisenhauer N**, & Wirth C (2022) *Diversity effects on canopy structure change throughout a growing season in experimental grassland communities.* ***Remote Sensing*** 14: 1557; https://doi.org/10.3390/rs14071557.

369 Liu J, Isbell F, Ma Q, Chen Y, Xing F, Sun W, Wang L, Li J, Wang Y, Hou F, Xin X, Nan Z, **Eisenhauer N**, & Wang D (2022) *Overgrazing, not haying, decreases grassland topsoil organic carbon by decreasing plant species richness along an aridity gradient in Northern China.* ***Agriculture, Ecosystems and Environment*** 332: 107935; https://doi.org/10.1016/j.agee.2022.107935.

368 Jochum M, Thouvenot L, Ferlian O, Zeiss R, Klarner B, Pruschitzki U, Johnson EA, & **Eisenhauer N** (2022) *Aboveground impacts of a belowground invader: how invasive earthworms alter aboveground arthropod communities in a northern North American forest.* ***Biology Letters*** 18: 20210636; https://doi.org/10.1098/rsbl.2021.0636.

367 Xu S, **Eisenhauer N**, Pellegrini AFA, Wang J, Certini G, Guerra CA, & Lai DYF (2022) *Fire frequency and type regulate the response of soil carbon cycling and storage to fire across soil depths and ecosystems: A meta-analysis.* ***Science of the Total Environment*** 825: 153921; http://dx.doi.org/10.1016/j.scitotenv.2022.153921.

366 Du J, Wang Y, Hao Y, **Eisenhauer N**, Liu Y, Zhang N, Xue K, Cui X, Xu X, Bardgett RD, & Wang S (2022) *Climatic resources mediate the shape and strength of grassland productivity-richness relationships from local to regional*

scales. ***Agriculture, Ecosystems and Environment*** 30: 107888; https://doi.org/10.1016/j.agee.2022.107888.

365 Cesarz S, Craven D, Auge H, Bruelheide H, Castagneyrol B, …, & **Eisenhauer N** (2022) *Tree diversity effects on soil microbial biomass and respiration are context-dependent across forest diversity experiments.* ***Global Ecology & Biogeography*** 31: 872-885; https://doi.org/10.1111/geb.13461.

364 Siles JA, Díaz-López M, Vera A, **Eisenhauer N**, Guerra CA, Smith LC, Buscot F, Reitz T, Breitkreuz C, van den Hoogen J, Crowther TW, Orgiazzi A, Kuzyakov Y, Delgado-Baquerizo M, Bastida F (2022) *Priming effects in soils across Europe.* ***Global Change Biology*** 28: 2146-2157; https://doi.org/10.1111/gcb.16062.

363 Lembrechts JJ, van den Hoogen J, …, **Eisenhauer N**, …, Nijs I, & Lenoir J (2022) *Global maps of soil temperature.* ***Global Change Biology*** 28: 3110-3144; https://onlinelibrary.wiley.com/doi/10.1111/gcb.16060.

362 Eisenhauer N (2022) *The shape that matters: how important is biodiversity for ecosystem functioning?* ***Science China Life Sciences*** 65: 651–653; https://link.springer.com/article/10.1007%2Fs11427-021-2052-5.

361 Yin R, Liu Q, Tian S, Potapov A, Zhu B, Yang K, Li Z, Zhuang L, Tan B, Zhang L, Xu Z, Kardol P, Schädler M, & **Eisenhauer N** (2022) *Nitrogen deposition stimulates decomposition via changes in the structure and function of litter food webs.* ***Soil Biology & Biochemistry*** 166: 108522; https://doi.org/10.1016/j.soilbio.2021.108522.

360 Dumack K, Ferlian O, Gysi DM, Degrune F, Jauss R-T, Walden S, Öztoprak H, Wubet T, Bonkowski M, & **Eisenhauer N** (2022) *Contrasting protist communities (Cercozoa: Rhizaria) in pristine and earthworm-invaded North American deciduous forests.* ***Biological Invasions*** 24: 1345–1357 https://doi.org/10.1007/s10530-021-02726-x.

359 Hong P, Schmid B, De Laender F, **Eisenhauer N**, Zhang X, Chen H, Craven D, De Boeck HJ, Hautier Y, Petchey OL, Reich PB, Steudel B, Striebel M, Thakur MP, & Wang S (2021) *Biodiversity promotes ecosystem functioning despite environmental changes.* ***Ecology Letters*** 25: 555-569; https://onlinelibrary.wiley.com/doi/epdf/10.1111/ele.13936.

358 Perino A, Pereira HM, … **Eisenhauer N**, …, & Bonn A (2021) *Biodiversity post-2020: Closing the gap between global targets and national-level implementation.* ***Conservation Letters*** 15: e12848; https://doi.org/10.1111/conl.12848.

357 Ebeling A, Strauss AT, Adler P, Arnillas CA, Barrio IC, Biedermann LA, Borer ET, Bugalho MN, Caldeira MC, Cadotte MW, Daleo P, **Eisenhauer N**, Eskelinen A, Fay PA, Firn J, Graff P, Hagenah N, Haider S, Komatsu KJ, McCulley RL, Mitchell CE, Moore J, Pascual J, Peri PL, Power SA, Prober SA, Risch AC, Roscher C, Sankaran M, Seabloom EW, Schielzeth H, Schütz M, Speziale KL, Tedder M, Virtanen R, & Blumenthal DM (2021) *Nutrient enrichment increases invertebrate herbivory and pathogen damage in grasslands.* ***Journal of Ecology*** 110: 327-339; https://doi.org/10.1111/1365-2745.13801.

356 Beugnon R, Ladouceur E, Sünnemann M, Cesarz S, & **Eisenhauer N** (2022) *Diverse forests are cool: promoting diverse forests to mitigate carbon emissions and climate change.* ***Journal of Sustainable Agriculture & Environment***, 1: 5-8. https://doi.org/10.1002/sae2.12005.

355 Gottschall F, Cesarz S, Auge H, Kovach KR, Mori AS, Nock CA, & **Eisenhauer N** (2022) *Spatio-temporal dynamics of abiotic and biotic properties explain biodiversity-ecosystem functioning relationships.* ***Ecological Monographs*** 92: e01490; https://doi.org/10.1002/ecm.1490.

354 Singavarapu B, Beugnon R, Bruelheide H, Cesarz S, Du J, **Eisenhauer N**, Guo L-D, Nawaz A, Wang Y, Xue K, & Wubet T (2022) *Tree mycorrhizal type and tree diversity shape the forest soil microbiota.* ***Environmental Microbiology*** 24: 4236-4255; https://doi.org/10.1111/1462-2920.15690.

353 Jochum M & **Eisenhauer N** (2022) *Out of the dark: using energy flux to connect above- and belowground communities and ecosystem functioning.* ***European Journal of Soil Science*** 73: e13154; https://doi.org/10.1111/ejss.13154.

352 Messier C, Bauhus J, Sousa-Silva R, Auge H, Baeten L, Barsoum N, Bruelheide H, Caldwell B, Cavender-Bares J, Dhiedt E, **Eisenhauer N**, Ganade G, Gravel D, Guillemot J, Hall JS, Hector A, Hérault B, Jactel H, Koricheva J, Kreft H, Mereu S, Muys B, Nock CA, Paquette A, Parker JD, Perring MP, Ponette Q, Potvin C, Reich PB, Scherer-Lorenzen M, Schnabel F, Verheyen K, Weih M, Wollni M, & Zemp DC (2022) *For the sake of resilience and multifunctionality, let's diversify planted forests!* ***Conservation Letters*** 15: e12829, https://doi.org/10.1111/conl.12829.

2021 [50 papers]

351 Eisenhauer N & Weigelt A (2021) *Ecosystem effects of environmental extremes.* ***Science*** 374, 1442-1443, https://www.science.org/doi/10.1126/science.abn1406.

350 Liu M, Cesarz S, **Eisenhauer N**, Xia H, Fu S, & Craven D (2021) *Soil quality, leaf litter quality, and microbial biomass interactively drive soil respiration in a microcosm experiment.* ***Soil Organisms*** 93, 181–194, https://doi.org/10.25674/so93iss3id158.

349 Schmidt A, Hines J, Türke M, Buscot F, Schädler M, Weigelt A, Gebler A, Klotz S, Liu T, Reth S, Trogisch S, Roy J, Wirth C, & **Eisenhauer N** (2021) *The iDiv Ecotron - a flexible research platform for multitrophic biodiversity research.* ***Ecology & Evolution*** 11: 15174-15190, https://doi.org/10.1002/ece3.8198.

348 Sünnemann M, Alt C, Kostin J, Lochner A, Reitz T, Siebert J, Schädler M, & **Eisenhauer N** (2021) *Low-intensity land-use enhances soil microbial activity, biomass and fungal-to-bacterial ratio in current and future climates.* ***Journal of Applied Ecology*** 58: 2614-2625, https://doi.org/10.1111/1365-2664.14004.

347 Guerra CA, Wall DH, & **Eisenhauer N** (2021) *Unearthing soil ecological observations*. ***Soil Organisms*** 91: 33-35, https://doi.org/10.25674/so93iss2id164.

346 Jochum M, Barnes AD, Brose U, Gauzens B, Sünnemann M, Amyntas A, & **Eisenhauer N** (2021) *For flux's sake: general considerations for energy-flux calculations in ecological communities.* ***Ecology & Evolution*** 11: 12948-12969, https://doi.org/10.1002/ece3.8060.

345 Beugnon R, Du J, Cesarz S, Jurburg SD, Pang Z, Singavarapu B, Wubet T, Xue K, Wang Y, & **Eisenhauer N** (2021) *Tree diversity and soil chemical properties drive the linkages between soil microbial community and ecosystem functioning.* ***ISME Communications*** 1: article number 41, https://doi.org/10.1038/s43705-021-00040.

344 Ferlian O, Goldmann K, **Eisenhauer N**, Tarkka MT, Buscot F, & Heintz-Buschart A (2021) *Distinct effects of host and neighbour tree identity on arbuscular and ectomycorrhizal fungi along a tree diversity gradient.* ***ISME Communications*** 1: article number 40, https://www.nature.com/articles/s43705-021-00042-y.

343 Smith L, Orgiazzi A, **Eisenhauer N**, Cesarz S, Lochner A, Jones A, Bastida F, Patoine G, Reitz T, Buscot F, Rillig MC, Heintz-Buschart A, Lehmann A, & Guerra CA (2021) *Large-scale drivers of relationships between soil microbial properties*

and organic carbon across Europe. ***Global Ecology & Biogeography*** 30: 2070-2083, https://doi.org/10.1111/geb.13371.

342 Eisenhauer N (2021) *Post-2020 aspirations for biodiversity - Protect the Earth's thin skin.* ***One Earth*** 4: 894.

341 Archidona-Yuste A, Wiegand T, **Eisenhauer N**, Cantalapiedra-Navarrete C, Palomares-Rius JE, & Castillo P (2021) *Agriculture causes homogenization of soil nematode communities at the regional scale.* ***Journal of Applied Ecology*** 58: 2881-2891, https://doi.org/10.1111/1365-2664.14025.

340 Kwon T, Shibata H, Kepfer-Rojas S, Schmidt IK, Larsen KS, Beier C, Berg B, Verheyen K, Lamarque JF, Hagedorn F, **Eisenhauer N**, Djukic I, & TeaComposition Network (2021) *Effects of climate and atmospheric nitrogen deposition on early to mid-term stage litter decomposition across biomes.* ***Frontiers in Forests and Global Change*** 4: 678480, doi: 10.3389/ffgc.2021.678480.

339 Hines J & **Eisenhauer N** (2021) *Species identity and the functioning of ecosystems: the role of detritivore traits and trophic interactions in connecting of multiple ecosystem responses.* ***Oikos*** 130: 1692-1703, https://doi.org/10.1111/oik.08333.

338 Junker RR, **Eisenhauer N**, Schmidt A, & Türke M (2021) *Invertebrate decline reduces bacterial diversity associated with leaves and flowers.* ***FEMS Microbiology Ecology*** 97: fiab088, https://doi.org/10.1093/femsec/fiab088.

337 Grenzer J, Kulmatiski A, Forero L, Ebeling A, **Eisenhauer N**, & Norton J (2021) *Moderate plant–soil feedbacks have small effects on the biodiversity–productivity relationship: A field experiment.* ***Ecology & Evolution*** 11: 11651-11663, https://onlinelibrary.wiley.com/doi/10.1002/ece3.7819.

336 Hutengs C, **Eisenhauer N**, Schädler M, Lochner A, Seidel M, & Vohland M (2021) *Soil spectroscopy with handheld VNIR and MIR instruments to analyse PLFA-derived soil microbial properties and associated physicochemical soil characteristics in an experimental plant diversity gradient.* ***Soil Biology & Biochemistry*** 160: 108319, https://doi.org/10.1016/j.soilbio.2021.108319.

335 Dietrich P, Cesarz S, Liu T, Roscher C, & **Eisenhauer N** (2021) *Efects of plant species diversity on nematode community composition and diversity in a long-term biodiversity experiment.* ***Oecologia*** 197: 297–311 http://orcid.org/0000-0002-7742-6064.

334 Oelmann Y, Lange M, Leimer S, Roscher C, Aburto F, Alt F, Bange N, Berner D, Boch S, Boeddinghaus RS, Buscot F, Dassen S, De Deyn G, **Eisenhauer N**, Gleixner G, Goldmann K, Hölzel N, Jochum M, Kandeler E, Klaus VH, Kleinebecker T, Le Provost G, Manning P, Marhan S, Prati D, Schäfer D, Schöning I, Schrumpf M, Schurig E, Wagg C, Wubet T, & Wilcke W (2021) *Above- and belowground biodiversity jointly tighten the P cycle.* ***Nature Communications*** 12: 4431, https://doi.org/10.1038/s41467-021-24714-4.

333 Seabloom EW, Batzer E, Chase JM, Harpole WS, Adler PB, Bagchi S, Bakker JD, Barrio IC, Biederman L, Boughton EH, Bugalho MN, Caldeira MC, Catford JA, Daleo P, **Eisenhauer N**, Eskelinen A, Haider S, Hallett LM, Svala Jónsdóttir I, Kimmel K, Kuhlman M, MacDougall A, Molina CD, Moore JL, Morgan JW, Muthukrishnan R, Ohlert T, Risch AC, Roscher C, Schütz M, Sonnier G, Tognetti PM, Virtanen R, Wilfahrt PA, & Borer ET (2021) *Species loss due to nutrient addition increases with spatial scale in global grasslands.* ***Ecology Letters*** 24: 2100-2112, https://doi.org/10.1111/ele.13838.

332 Sünnemann M, Siebert J, Reitz T, Schädler M, Yin R, & **Eisenhauer N** (2021) *Combined effects of land-use type and climate change on soil microbial activity and invertebrate decomposer activity.* ***Agriculture, Ecosystems and Environment*** 318: 107490, https://doi.org/10.1016/j.agee.2021.107490.

331 Dietrich P, **Eisenhauer N**, Otto P, & Roscher C (2021) *Plant and soil community jointly influence the selection environment for plant species in a long-term grassland biodiversity experiment.* ***Ecology & Evolution*** 11: 8156-8169, https://doi.org/10.1002/ece3.7647.

330 **Eisenhauer N** & Hines J (2021) *Invertebrate biodiversity and conservation.* ***Current Biology*** 31: R1214-R1218, https://doi.org/10.1016/j.cub.2021.06.058.

329 Potapov A, Schaefer I, Jochum M, Widyastuti R, **Eisenhauer N**, & Scheu S (2021) *Oil palm and rubber plantation facilitates earthworm invasion in Indonesia.* ***Biological Invasions*** 23: 2783–2795, https://doi.org/10.1007/s10530-021-02539-y.

328 Reuter R, Ferlian O, Tarkka M, **Eisenhauer N**, Pritsch K, & Simon J (2021) *Tree species rather than type of mycorrhizal association drives inorganic and organic nitrogen acquisition in tree-tree interactions.* ***Tree Physiology*** 41: 2096-2108, https://doi.org/10.1093/treephys/tpab059.

327 Djukic I, Kepfer-Rojas S, Kappel Schmidt I, Steenberg Larsen K, Beier C, Berg B, Verheyen K, Trevathan-Tackett SM, Macreadie PI, Bierbaumer M, Patoine G, **Eisenhauer N**, Guerra CA, Maestre FT, Hagedorn F, Oggioni A, Bergami C, Magagna B, Kwon T, Shibata H, & TeaComposition Initiative (2021) *The TeaComposition initiative: Unleashing the power of international collaboration to understand litter decomposition.* ***Soil Organisms*** 93: 73-78, https://doi.org/10.25674/so93iss1pp73.

326 Roeder A, Schweingruber FH, Ebeling A, **Eisenhauer N**, Fischer M, & Roscher C (2021) *Plant diversity effects on plant longevity and their relationships to population stability in experimental grasslands*. ***Journal of Ecology*** 109: 2566-2579, https://doi.org/10.1111/1365-2745.13661.

325 Heklau H, Schindler N, Buscot F, **Eisenhauer N**, Ferlian O, Salcedo P, Bruelheide H (2021) *Mixing tree species associated with arbuscular or ectotrophic mycorrhizae reveals dual mycorrhization and interactive effects on the fungal partners.* ***Ecology & Evolution*** 11: 5424-5440, https://doi.org/10.1002/ece3.7437.

324 van Sundert K, Arfin Khan MAS, Bharath S, Buckley YM, Caldeira MC, Donohue I, Dubbert M, Ebeling A, **Eisenhauer N**, Eskelinen A, Finn A, Gebauer T, Haider S, Hansart A, Jentsch A, Kübert A, Nijs I, Nock CA, Nogueira C, Porath-Krause AJ, Radujković D, Raynaud X, Risch AC, Roscher C, Scherer-Lorenzen M, Schuchardt MA, Schütz M, Siebert J, Sitters J, Spohn M, Virtanen R, Werner C, Wilfahrt P, Vicca S (2021) *Fertilized graminoids intensify negative drought effects on grassland productivity.* ***Global Change Biology*** 27: 2441-2457, https://doi.org/10.1111/gcb.15583.

323 Thouvenot L, Ferlian O, Beugnon R, Künne T, Lochner A, Thakur MP, Türke M, **Eisenhauer N** (2021) *Do invasive earthworms affect the functional traits of native plants?* ***Frontiers in Plant Science*** 12: article 627573, https://doi.org/10.3389/fpls.2021.627573.

322 Phillips HRP, 155 co-authors, Cameron EK*, **Eisenhauer N*** (2021) *Global data on earthworm abundance, biomass, diversity and corresponding environmental properties.* ***Scientific Data*** 8: 136, https://doi.org/10.1038/s41597-021-00912-z. * shared senior authorship.

321 Trogisch S, Liu X, Rutten G, Xue K, Bauhus J, Brose U, Bu W, Cesarz S, Chesters D, Connolly J, Cui X, **Eisenhauer N**, Guo L, Haider S, Härdtle W, Kunz

M, Liu L, Ma Z, Neumann S, Sang W, Schuldt A, Tang Z, van Dam NM, von Oheimb G, Wang M-Q, Wang S, Weinhold A, Wirth C, Wubet T, Xu X, Yang B, Zhang N, Zhu C-D, Ma K, Wang Y, Bruelheide H (2021) *The significance of tree-tree interactions for forest ecosystem functioning.* ***Basic & Applied Ecology*** 55: 33-52, https://doi.org/10.1016/j.baae.2021.02.003.

320 Xu S, Sayer E, **Eisenhauer N**, Lu X, Wang J, Liu C (2021) *Aboveground litter inputs determine carbon storage across soil profiles: a meta-analysis.* ***Plant & Soil*** 462: 429–444, https://doi.org/10.1007/s11104-021-04881-5.

319 Jochum M, Ferlian O, Thakur MP, Ciobanu M, Klarner B, Salamon JA, Frelich LE, Johnson EA, **Eisenhauer N** (2021) *Earthworm invasion causes declines across soil fauna size classes and biodiversity facets in northern North American forests.* ***Oikos*** 130: 766-780, doi: 10.1111/oik.07867.

318 Singh J, **Eisenhauer N**, Schädler M, Cesarz S (2021) *Earthworm gut passage reinforces land-use effects on soil microbial communities across climate treatments.* ***Applied Soil Ecology*** 164: 103919. https://doi.org/10.1016/j.apsoil.2021.103919.

317 Guimarães-Steinicke C, Weigelt A, Proulx R, Lanners T, **Eisenhauer N**, Duque-Lazo J, Reu B, Roscher C, Wagg C, Buchmann N, Wirth C (2021) *Biodiversity facets affect community surface temperature via 3D canopy structure in grassland communities.* ***Journal of Ecology*** 109: 1969-1985, https://doi.org/10.1111/1365-2745.13631.

316 Beaumelle L, Thouvenot L, Hines J, Jochum M, **Eisenhauer N**, Phillips HRP (2021) *Soil fauna diversity and chemical stressors: a review of knowledge gaps and roadmap for future research.* ***Ecography*** 44: 845-85, https://doi.org/10.1111/ecog.05627.

315 Strecker T, Jesch A, Bachmann D, **Eisenhauer N**, Jüds M, Karbstein K, Ravenek J, Roscher C, Weigelt A, Scheu S (2021) *Incorporation of mineral nitrogen into the soil food web as affected by plant community composition.* ***Ecology & Evolution*** 11: 4295-4309, doi: 10.1002/ece3.7325.

314 Wang S, Loreau M, de Mazancourt C, Isbell F, Beierkuhnlein C, Connolly J, Deutschman DH, Doležal J, **Eisenhauer N**, Hector A, Jentsch A, Kreyling J, Lanta V, Lepš J, Polley HW, Reich PB, van Ruijven J, Schmid B, Tilman B, Wilsey B, Craven D (2021) *Biotic homogenization destabilizes ecosystem functioning by*

decreasing spatial asynchrony. ***Ecology*** 102: e03332, https://doi.org/10.1002/ecy.3332.

313 Guerra CA, Delgado-Baquerizo M, Duarte E, Marigliano O, Görgen C, Maestre FT, **Eisenhauer N** (2021) *Global projections of the soil microbiome in the Anthropocene.* ***Global Ecology & Biogeography*** 30: 987-999, https://doi.org/10.1111/geb.13273.

312 Guerra CA, Bardgett RD, Caon L, Crowther TW, Delgado-Baquerizo M, Montanarella L, Navarro LM, Orgiazzi A, Singh BK, Tedersoo L, Vargas-Rojas R, Briones MJI, Buscot F, Cameron EK, Cesarz S, Chatzinotas A, Cowman DA, Djukic I, van den Hoogen J, Lehmann A, Maestre FT, Marín C, Reitz T, Rillig MC, Smith LC, de Vries FT, Weigelt A, Wall DH*, **Eisenhauer N*** (2021) *Tracking, targeting, and conserving soil biodiversity.* ***Science*** 371: 239-241. http://science.sciencemag.org/content/371/6526/239. * shared senior authorship.

311 Roy J, Rineau F, De Boeck HJ, Nijs I, Pütz T, Abiven S, Arnone III JA, Barton CVM, Beenaerts N, Brüggemann N, Dainese M, Domisch T, **Eisenhauer N**, Garré S, Gebler A, Ghirardo A, Jasoni RL, Kowalchuk G, Landais D, Le Galliard J-F, Larsen SH, Leemans V, Longdoz B, Massol F, Mikkelsen TN, Niedrist G, Piel C, Ravel O, Sauze J, Schmidt A, Schnitzler J-P, Teixeira LH, Tjoelker MG, Weisser WW, Winkler JB, Milcu A (2021) *Ecotrons: powerful and versatile ecosystem analysers for ecology, agronomy and environmental science.* ***Global Change Biology*** 27: 1387-1407, https://doi.org/10.1111/gcb.15471.

310 Phillips HRP, Briones MJI, Brown GG, Decaëns T, Cameron E, **Eisenhauer N** (2021) *Response to Comment on "Global distribution of earthworm diversity".* ***Science*** 371: eabe4744. https://science.sciencemag.org/content/371/6525/eabe4744 .

309 Lange M, Roth V-N, **Eisenhauer N**, Roscher C, Dittmar T, Fischer C, González Macé O, Hildebrandt A, Milcu A, Mommer L, Oram NJ, Ravenek J, Scheu S, Schmid B, Strecker T, Wagg C, Weigelt A, & Gleixner G (2021) *Plant diversity enhances production and downward transport of biodegradable dissolved organic matter.* ***Journal of Ecology*** 109: 1284-1297, https://doi.org/10.1111/1365-2745.13556.

308 Kostin JE, Cesarz S, Lochner A, Schädler M, Macdonald CA, & **Eisenhauer N** (2021) *Land-use drives the temporal stability and magnitude of soil microbial*

functions and modulates climate effects. ***Ecological Applications*** 31: e02325, https://doi.org/10.1002/eap.2325.

307 Eisenhauer N, Buscot F, Heintz-Buschart A, Jurburg SD, Küsel K, Sirkorski J, Vogel H-J, Guerra CA (2021) *The multidimensionality of soil macroecology.* ***Global Ecology & Biogeography*** 30(1): 4-10. https://doi.org/10.1111/geb.13211.

306 Poeydebat C, Jactel H, Moreira X, Koricheva J, Barsoum N, Bauhus J, **Eisenhauer N**, Ferlian O, Francisco M, Gottschall F, Gravel D, Mason B, Muiruri E, Muys B, Nock C, Paquette A, Ponette Q, Scherer-Lorenzen M, Stokes M, Staab M, Verheyen K, Castagneyrol B (2020) *Climate affects neighbour-induced changes in leaf chemical defences and tree diversity-herbivory relationships.* ***Functional Ecology*** 35(1): 67-81. https://doi.org/10.1111/1365-2435.13700.

305 Ferlian O, Lintzel E-M, Bruelheide H, Guerra CA, Heklau H, Jurburg S, Kühn P, Martinez-Medina A, Unsicker SB, **Eisenhauer N***, Schädler M* (2021) *Nutrient status not secondary metabolites drives herbivory and pathogen infestation across differently mycorrhized tree monocultures and mixtures.* ***Basic and Applied Ecology*** 55: 110-123, https://doi.org/10.1016/j.baae.2020.09.009. * joint senior authorship.

304 Thakur MP, Künne T, Unsicker SB, Biere A, Ferlian O, Pruschitzki U, Thouvenot L, Türke M, **Eisenhauer N** (2021) *Invasive earthworms reduce chemical defense and increase herbivory and pathogen infection in native trees.* ***Journal of Ecology*** 109(2): 763-775. https://doi.org/10.1111/1365-2745.13504.

303 van Moorsel SJ, Hahl T, Petchey OL, Ebeling A, **Eisenhauer N**, Schmid B, Wagg C (2021) *A history of co-occurrence increases ecosystem temporal stability and recovery from a flood in experimental grassland communities.* ***Ecology*** 102(1): e03205. https://doi.org/10.1002/ecy.3205.

302 Singh J, Cameron E, Schädler M, **Eisenhauer N** (2021) *Grassland management effects on earthworm communities under ambient and future climatic conditions.* ***European Journal of Soil Science*** 72(1): 343-355. https://doi.org/10.1111/ejss.12942.

2020 [42 papers]

301 Xu S, **Eisenhauer N**, Ferlian O, Zhang J, Zhou G, Lu X, Liu C, Zhang D (2020) *Species richness promotes ecosystem carbon storage: evidence from biodiversity-ecosystem functioning experiments.* ***Proceedings of the Royal Society B*** 287: 20202063. http://dx.doi.org/10.1098/rspb.2020.2063.

300 Hautier Y, Zhang P, Loreau M, Wilcox KR, Seabloom EW, Borer ET, Byrnes JEK, Koerner SE, Komatsu KJ, Lefcheck JS, Hector A, Adler PB, Alberti J, Arnillas CA, Bakker JD, Brudvig LA, Bugalho MN, Cadotte M, Caldeira MC, Carroll O, Crawley M, Collins SL, Daleo P, Dee LE, **Eisenhauer N**, Eskelinen A, Fay PA, Gilbert B, Hansar A, Isbell F, Knops JMH, MacDougall AS, McCulley RL, Moore JL, Morgan JW, Mori AS, Peri PL, Pos ET, Power SA, Price JN, Reich PB, Risch AC, Roscher C, Sankaran M, Schütz M, Smith M, Stevens C, Tognetti PM, Virtanen R, Wardle GM, Wilfahrt PA, Wang S (2020) *General destabilizing effects of eutrophication on grassland productivity at multiple spatial scales.* ***Nature Communications*** 11: Article number: 5375. https://www.nature.com/articles/s41467-020-19252-4.

299 Kühl HS, Bowler DE, Bösch L, Bruelheide H, Dauber J, Eichenberg D, **Eisenhauer N**, Fernandez N, Guerra CA, Henle K, Herbinger I, Isaac NJB, Jansen F, König-Ries B, Kühn I, Nilsen EB, Pe'er G, Richter A, Schulte R, Settele J, van Dam NM, Voigt M, Wägele JW, Wirth C, Bonn A (2020) *Effective biodiversity monitoring needs a culture of integration.* ***One Earth*** 3: 462-474. https://doi.org/10.1016/j.oneear.2020.09.010.

298 van der Plas F, Schröder-Georgi T, Weigelt A, Barry K, Meyer S, Alzate A, Barnard RL, Buchmann N, de Kroon H, Ebeling A, **Eisenhauer N**, Engels C, Fischer M, Gleixner G, Hildebrandt A, Koller-France E, Leimer S, Milcu A, Mommer L, Niklaus PA, Oelmann Y, Roscher C, Scherber C, Scherer-Lorenzen M, Scheu S, Schmid B, Schulze E-D, Temperton V, Tscharntke T, Voigt W, Weisser WW, Wilcke W, Wirth C (2020) *Plant traits alone are poor predictors of ecosystem properties and long-term ecosystem functioning.* ***Nature Ecology & Evolution*** 4: 1602–1611. https://www.nature.com/articles/s41559-020-01316-9.

297 Ulrich J, Bucher SF, **Eisenhauer N**, Schmidt A, Türke M, Gebler A, Barry K, Römermann C (2020) *Invertebrate decline leads to shifts in plant species abundance and phenology.* ***Frontiers in Plant Science*** 11: Article 542125. https://doi.org/10.3389/fpls.2020.542125.

296 Phillips HRP, Guerra CA, 138 co-authors, Cameron EK*, **Eisenhauer N*** (2020) *Erratum for the Report "Global distribution of earthworm diversity"*. ***Science*** 369(6503): eabd9834. https://doi.org/10.1126/science.abd9834.

295 Barnes AD, Scherber C*, Brose U, Borer ET, Ebeling A, Gauzens B, Giling D, Hines J, Isbell F, Ristok C, Tilman D, Weisser WW, **Eisenhauer N*** (2020) *Biodiversity enhances the multi-trophic control of herbivory.* ***Science Advances*** 6: eabb6603. https://advances.sciencemag.org/content/6/45/eabb6603. * shared senior authorship.

294 Jurburg SD, Konzack M, **Eisenhauer N**, Heintz-Buschart A (2020) *The archives are half-empty: an assessment of the availability of microbial community sequencing data.* ***Communications Biology*** 3: Article number: 474. https://doi.org/10.1038/s42003-020-01204-9.

293 Risch AC, Zimmermann S, Moser B, Schütz M, Firn J, Fay PA, Adler PB, Biedermann LA, Blair JM, Borer ET, Broadbent AAD, Brown CS, Cadotte MW, Caldeira MC, Davies KF, di Virgilio A, **Eisenhauer N**, Eseklinen A, Knops JMH, MacDougall AS, McCulley RL, Melbourne BA, Moore JL, Power SA, Prober SM, Seabloom EW, Siebert J, Silveira ML, Speziale KL, Stevens CJ, Tognetti PM, Virtanen R, Yahdjian L, Ochoa-Hueso R (2020) *Global impacts of fertilization and herbivore removal on soil net nitrogen mineralization are modulated by local climate and soil properties.* ***Global Change Biology*** 26(12): 7173-7185. https://doi.org/10.1111/gcb.15308.

292 Yin R, Siebert J, **Eisenhauer N***, Schädler M* (2020) *Climate change and intensive land use reduce soil animal biomass throughin dissimilar pathways.* ***eLife*** 9: e54749. DOI: 10.7554/eLife.54749. * shared senior authorship.

291 Guerra CA, Heintz-Buschart A, Sikorski J, Chatzinotas A, Guerrero-Ramírez N, Cesarz S, Beaumelle L, Rillig M, Maestre FT, Delgado-Baquerizo M, Buscot F, Overmann J, Patoine G, Phillips HRP, Winter M, Wubet T, Küsel K, Bardgett R, Cameron E, Cowan D, Grebenc T, Marín C, Orgiazzi A, Singh BK, Wall DH, **Eisenhauer N** (2020) *Blind spots in global soil biodiversity and ecosystem function research.* ***Nature Communications*** 11: 3870. https://doi.org/10.1038/s41467-020-17688-2.

290 Phillips HRP, Beaumelle L, **Eisenhauer N**, Hines J, Smith LC (2020) *Lessons from the WBF2020: extrinsic and intrinsic value of soil organisms.* ***Soil Organisms*** 92(2): 121–127. https://doi.org/10.25674/so92iss2pp121.

289 Lama S, Velescu A, Leimer S, Weigelt A, Chen H, **Eisenhauer N**, Scheu S, Oelmann Y, Wilcke W (2020) *Plant diversity influenced gross nitrogen mineralization, microbial ammonium consumption and gross inorganic N immobilization in a grassland experiment.* ***Oecologia*** 193: 731-748. https://doi.org/10.1007/s00442-020-04717-6.

288 Beaumelle L, De Laender F, **Eisenhauer N** (2020) *Biodiversity mediates the effects of stressors but not nutrients on litter decomposition.* ***eLife*** 9: e55659, DOI: 10.7554/eLife.55659.

287 Dietrich P, Cesarz S, **Eisenhauer N**, Roscher C (2020) *Effects of steam sterilization on soil abiotic and biotic properties.* ***Soil Organisms*** *92*(2): 99–108. https://doi.org/10.25674/so92iss2pp99.

286 Dietrich P, Roscher C, Clark AT, **Eisenhauer N**, Schmid B, Wagg C (2020) *Diverse plant mixtures sustain a greater arbuscular mycorrhizal fungi spore viability than monocultures after 12 years.* ***Journal of Plant Ecology*** 13(4): 478-488. https://doi.org/10.1093/jpe/rtaa037.

285 Lama S, Kuhn T, Lehmann MF, Müller C, Gonzalez O, **Eisenhauer N**, Lange M, Scheu S, Oelmann Y, Wilcke W (2020) *The biodiversity - N cycle relationship: a ^{15}N tracer experiment with soil from plant mixtures of varying diversity to model N pool sizes and transformation rates.* ***Biology & Fertility of Soils*** 56: 1047–1061. https://doi.org/10.1007/s00374-020-01480-x.

284 Patoine G, Bruelheide H, Haase J, Nock C, Ohlmann N, Schwarz B, Scherer-Lorenzen M, **Eisenhauer N** (2020) *Tree litter functional diversity and nitrogen concentration enhance litter decomposition via changes in earthworm communities.* ***Ecology & Evolution*** 10(13): 6752-6768. https://doi.org/10.1002/ece3.6474.

283 Jochum M, Fischer M, Isbell F, Roscher C, van der Plas F, Boch S, Boenisch G, Buchmann N, Catford JA, Cavender-Bares J, Ebeling A, **Eisenhauer N**, Gleixner G, Hölzel N, Kattge J, Klaus VH, Kleinebecker T, Lange M, Le Provost G, Meyer ST, Molina-Vegas R, Mommer L, Oelmann Y, Penone C, Prati D, Reich PB, Rindisbacher A, Schäfer D, Scheu S, Schmid B, Tilman D, Tscharntke T, Vogel A, Wagg C, Weigelt A, Weisser WW, Wilcke W, Manning P (2020) *The results of biodiversity-ecosystem functioning experiments are realistic.* ***Nature Ecology & Evolution*** 4: 1485-1494. https://www.nature.com/articles/s41559-020-1280-9.

282 Yin R, Kardol P, Thakur MP, Gruss I, Wu G-L, **Eisenhauer N***, Schädler M* (2020) *Soil functional biodiversity and biological quality under threat: intensive land use outweighs climate change.* ***Soil Biology & Biochemistry*** 147: 107847. https://doi.org/10.1016/j.soilbio.2020.107847. * shared senior authorship.

281 Ochoa-Hueso R, Borer E, Seabloom EW, Hobbie SE, Risch AC, Collins SL, Alberti J, Bahamonde HA, Brown CS, Caldeira MC, Daleo P, Dickman CR, Ebeling A, **Eisenhauer N**, Esch EH, Eskelinen A, Fernández V, Güsewell S, Gutierrez-Larruga B, Hofmockel K, Laungani R, Lind E, López A, McCulley RL, Moore JL, Peri P, Power SA, Price JN, Prober SM, Roscher C, Sarneel JM, Schütz M, Siebert J, Standish RJ, Velasco Ayuso S, Virtanen R, Wardle GM, Wiehl G, Yahdjian L, Zamin T (2020) *Microbial processing of plant remains is co-limited by multiple nutrients in global grasslands.* ***Global Change Biology*** 26 (8): 4572-4582. https://doi.org/10.1111/gcb.15146.

280 Lembrechts JJ, … **Eisenhauer N**, … Nijs I (2020) *SoilTemp: a global database of near-surface temperature.* ***Global Change Biology*** 26(11): 6616-6629. https://doi.org/10.1111/gcb.15123.

279 Ochoa-Hueso R, Risch AC, Collins SL, **Eisenhauer N**, van der Putten WH (2020) *Ecosystem and biogeochemical coupling in terrestrial ecosystems under global change: A roadmap for synthesis and call for data.* ***Soil Organisms*** 92(1): 8-12. https://doi.org/10.25674/so92iss1pp8.

278 Heintz-Buschart A, Guerra C, Djukic I, Cesarz S, Chatzinotas A, Patoine G, Sikorski J, Buscot F, Küsel K, Wegner C-E, **Eisenhauer N** (2020) *Microbial diversity-ecosystem function relationships across environmental gradients.* ***Research Ideas and Outcomes*** 6: e52217. https://doi.org/10.3897/rio.6.e52217.

277 Firn J, McGree J, Harvey E, Flores-Moreno H, Schuetz M, Buckley Y, Borer E, Seabloom E, La Pierre K, MacDougall AS, Prober S, Stevens C, Sullivan L, Porter E, Ladouceur E, Allen C, Moromizato KH, Morgan J, Harpole WS, Hautier Y, **Eisenhauer N**, Wright J, Adler P, Arnillas C, Bakker J, Biederman L, Broadbent A, Brown C, Bugalho M, Caldeira M, Cleland E, Ebeling A, Fay P, Hagenah N, Kleinhesselink A, Mitchell R, Moore J, Nogueira C, Peri P, Roscher C, Smith M, Wragg P, Risch A (2019) *Author Correction: Leaf nutrients, not specific leaf area, are consistent indicators of elevated nutrient inputs.* ***Nature Ecology and Evolution*** 4: 886-891. https://doi.org/10.1038/s41559-020-1213-7.

276 Delgado-Baquerizo M, Guerra CA, Cano-Díaz C, Egidi E, Wang J-T, **Eisenhauer N**, Singh BK, Maestre FT (2020) *The proportion of soil-borne pathogens increases with warming at the global scale.* ***Nature Climate Change*** 10: 550-554. https://doi.org/10.1038/s41558-020-0759-3.

275 Broadbent AAD, Firn J, McGree JM, Borer ET, Buckley YM, Harpole WS, Komatsu KJ, MacDougall AS, Orwin KH, Ostle NJ, Seabloom EW, Bakker JD, Biedermann L, Caldeira MC, **Eisenhauer N**, Hagenah N, Hautier Y, Moore JL, Noguiera C, Peri PL, Risch AC, Roscher C, Schütz M, Stevens CJ (2020) *Dominant native and non-native graminoids differ in key leaf traits irrespective of nutrient availability.* ***Global Ecology and Biogeography*** 29(7): 1126-1138. https://doi.org/10.1111/geb.13092.

274 Guerra CA, Rosa IMD, Valentini E, Wolf F, Filipponi F, Karger DN, Xuan AN, Mathieu J, Lavelle P, **Eisenhauer N** (2020) *Global vulnerability of soil ecosystems to erosion.* ***Landscape Ecology*** 35: 823-842. https://doi.org/10.1007/s10980-020-00984-z.

273 Pe'er G, Bonn A, Bruelheide H, Dieker P, **Eisenhauer N**, Feindt PH, Hagedorn G, Hansjürgens B, Herzon I, Lomba A, Marquard E, Moreira F, Nitsch H, Oppermann R, Perino A, Röder N, Schleyer C, Schindler S, Wolf C, Zinngrebe Y, Lakner S, and 3233 additional signatories (2020) *Action needed for the EU Common Agricultural Policy to address sustainability challenges.* ***People & Nature*** 2(2): 305-316. https://doi.org/10.1002/pan3.10080.

272 Ebeling A, Lind EW, Meyer ST, Barnes AD, Borer ET, **Eisenhauer N**, Weisser WW (2020) *Contrasting effects of plant diversity on β-, and γ-diversity of grassland invertebrates.* ***Ecology*** 101(7): e03057. https://doi.org/10.1002/ecy.3057.

271 Liu T, Mao P, Shi L, **Eisenhauer N**, Liu S, Wang X, He X, Wang Z, Zhang W, Liu Z, Zhou L, Shao Y, Fu S (2020) *Forest canopy maintains the soil community composition under elevated N nitrogen deposition.* ***Soil Biology & Biochemistry*** 143: 107733. https://doi.org/10.1016/j.soilbio.2020.107733.

270 Phillips HRP, Heintz-Buschart A, **Eisenhauer N** (2020) *Putting soil invertebrate diversity on the map*. ***Molecular Ecology*** 29: 655-657. https://doi.org/10.1111/mec.15371.

269 Sitters J, Wubs, Jasper ER, Bakker L, Crowther T, Adler P, Bagchi S, Bakker J, Biederman L, Borer E, Cleland E, **Eisenhauer N**, Firn J, Gherardi L, Hagenah

N, Hautier Y, Hobbie S, Knops J, MacDougall A, McCulley B, Moore J, Mortensen B, Peri P, Prober S, Riggs C, Risch A, Schuetz M, Seabloom E, Siebert J, Stevens C, Veen GFC (2020) *Nutrient availability controls the impact of mammalian herbivores on soil carbon and nitrogen pools in grasslands*. ***Global Change Biology*** 26: 2060-2071. https://doi.org/10.1111/gcb.15023.

268 Buzhdygan OY, Meyer ST, Weisser WW, **Eisenhauer N**, Ebeling A, Borrett SR, Buchmann N, Cortois R, De Deyn GB, de Kroon H, Gleixner G, Hertzog L, Hines J, Lange M, Mommer L, Ravenek J, Scherber C, Scherer-Lorenzen M, Scheu S, Schmid B, Steinauer K, Strecker T, Tietjen B, Vogel A, Wright A, Petermann JS (2020) *Biodiversity increases multitrophic energy use efficiency, flow, and storage in grasslands.* ***Nature Ecology & Evolution*** 4: 393–405. https://doi.org/10.1038/s41559-020-1123-8.

267 Dietrich P, Roeder A, Cesarz S, **Eisenhauer N**, Ebeling A, Schmid B, Schulze E-D, Wagg C, Weigelt A, Roscher C (2020) *Nematode communities, nutrient economy and life-cycle characteristics jointly determine plant monoculture performance over 12-years.* ***Oikos*** 129(4): 466-479. https://doi.org/10.1111/oik.06989

266 Siebert J, Ciobanu M, Schädler M, **Eisenhauer N** (2020) *Climate change and land use induce functional shifts in soil nematode communities.* ***Oecologia*** 192: 281-294. https://doi.org/10.1007/s00442-019-04560-4.

265 Feng Y, Soliveres S, Allan E, Rosenbaum E, Wagg C, Tabi A, De Luca E, **Eisenhauer N**, Schmid B, Weigelt A, Weisser WW, Roscher C, Fischer M (2020) *Inferring competitive outcomes, ranks and intransitivity from empirical data: a comparison of different methods.* ***Methods in Ecology & Evolution*** 11(1): 117-128. https://doi.org/10.1111/2041-210X.13326.

264 Ferlian O, Thakur MP, González AC, San Emeterio LM, Marr S, da Silva Rocha B, **Eisenhauer N** (2020) *Soil chemistry turned upside down: a meta-analysis of invasive earthworm effects on soil chemical properties.* ***Ecology*** 101(3): e02936. https://doi.org/10.1002/ecy.2936.

263 Clark AT, Turnbull LA, Tredennick A, Allan E, Harpole WS, Mayfield MM, Soliveres S, Barry K, **Eisenhauer N**, de Kroon H, Rosenbaum B, Wagg C, Weigelt A, Feng Y, Roscher C, Schmid B (2020) *Predicting species abundances in a grassland biodiversity experiment: Trade-offs between model complexity and*

generality. ***Journal of Ecology*** 108(2): 774-787. https://doi.org/10.1111/1365-2745.13316.

262 Thakur MP, Phillips HRP, Brose U, De Vries FT, Lavelle P, Loreau M, Mathieu J, Mulder C, van der Putten WH, Rillig MC, Wardle DA, Bach E, Bartz M, Bennett JM, Briones MJI, Brown G, Decaëns T, **Eisenhauer N**, Ferlian O, Guerra CA, König-Ries B, Orgiazzi A, Ramirez KS, Russell DJ, Rutgers M, Wall DH, Cameron EK (2020) *Towards an integrative understanding of soil biodiversity.* ***Biological Reviews*** 95(2): 350-364. https://doi.org/10.1111/brv.12567.

261 Barry KE, van Ruijven J, Mommer L, Bai Y, Beierkuhnlein C, Buchmann N, de Kroon H, Ebeling A, **Eisenhauer N**, Guimaraes-Steinicke C, Hildebrandt A, Isbell F, Milcu A, Neßhöver C, Reich PB, Roscher C, Sauheitl L, Scherer-Lorenzen M, Schmid B, Tilman D, von Felten S, Weigelt A (2020) *Limited evidence for spatial resource partitioning across temperate grassland biodiversity experiments*. ***Ecology*** 101(1): e02905. https://doi.org/10.1002/ecy.2905.

260 Klein A, **Eisenhauer N**, Schaefer I (2020) *Invasive lumbricid earthworms in North America – different life-histories but common dispersal?* ***Journal of Biogeography*** 47: 674-685. https://doi.org/10.1111/jbi.13744.

2019 [52 papers]

259 Kehoe L, Reis T, Virah-Sawmy M, Balmford A, Kuemmerle T, and 604 signatories, including **Eisenhauer N** (2019) *Make EU trade with Brazil sustainable.* ***Science*** 364: 341. Doi 10.1126/science.aaw8276.

258 Guerrero-Ramírez NR, Craven D, Reich PB, Ewel JJ, Isbell F, Koricheva J, Parrotta JA, Auge H, Erickson HE, Forrester DI, Hector A, Joshi J, Montagnini F, Palmborg C, Piotto D, Potvin C, Roscher C, van Ruijven J, Tilman D, Wilsey B, **Eisenhauer N** (2019) *Author Correction: Diversity-dependent temporal divergence of ecosystem functioning in experimental ecosystems*. ***Nature Ecology & Evolution*** 3: 1365–1366. https://doi.org/10.1038/s41559-019-0973-4.

257 Singh J, Schädler M, Demetrio W, Brown GG, **Eisenhauer N** (2019) *Climate change effects on earthworms - a review.* ***Soil Organisms*** 91: 114-138. https://doi.org/10.25674/so91iss3pp114.

256 Smith GR, Crowther TW, **Eisenhauer N**, van den Hoogen J (2019) *Building a global database of soil microbial biomass and function: a call for collaboration.* ***Soil Organisms*** 91: 140-143. https://doi.org/10.25674/so91iss3pp140.

255 Risch AC, Zimmermann S, Ochoa-Hueso R, Schütz M, Frey B, Firn JL, Fay PA, Hagedorn F, Borer ET, Seabloom EW, Harpole WS, Knops JMH, McCulley RL, Broadbent AAD, Stevens CJ, Silveira ML, Adler PB, Báez S, Biedermann LA, Blair JM, Brown CS, Caldeira MC, Collins SL, Daleo P, di Virgilio A, Ebeling A, **Eisenhauer N**, Esch E, Eskelinen A, Hagenah N, Hautier Y, Kirkman KP, MacDougall AS, Moore JL, Power SA, Prober SM, Roscher C, Sankaran M, Siebert J, Speziale KL, Tognetti PM, Virtanen R, Yahdjian L Moser B (2019) *Soil net nitrogen mineralization across global grasslands.* ***Nature Communications*** 10: 4981. https://doi.org/10.1038/s41467-019-12948-2.

254 Fernando T Maestre and **Eisenhauer N** (2019) *Recommendations for establishing global collaborative networks in ecology*. ***Soil Organisms*** 91: 73-83. https://doi.org/10.25674/so91iss3pp73.

253 Eisenhauer N, Bonkowski M, Brose U, Buscot F, Durka W, Ebeling A, Fischer M, Gleixner G, Heintz-Buschart A, Hines J, Jesch A, Lange M, Meyer S, Roscher C, Scheu S, Schielzeth H, Schloter M, Schulz S, Unsicker S, van Dam NM, Weigelt A, Weisser WW, Wirth C, Wolf J, Schmid B (2019) *Biotic interactions, community assembly, and eco-evolutionary dynamics as drivers of long-term biodiversity–ecosystem functioning relationships.* ***Research Ideas and Outcomes*** 5: e47042. https://doi.org/10.3897/rio.5.e47042.

252 Yin R, Gruss I, **Eisenhauer N**, Kardol P, Thakur MP, Schmidt A, Xu Z, Siebert J, Zhang C, Wu G-L, Schädler M (2019) *Land use modulates the effects of climate change on density but not community composition of Collembola.* ***Soil Biology and Biochemistry*** 138: 107598. https://doi.org/10.1016/j.soilbio.2019.107598.

251 Phillips HRP, Guerra CA, 137 co-authors, Cameron EK*, **Eisenhauer N*** (2019) *Global distribution of earthworm diversity*. ***Science*** 366: 480-485; DOI: 10.1126/science.aax4851. *shared senior authorship.

250 Gottschall F, Davids S, Newiger-Dous TE, Auge H, Cesarz S, **Eisenhauer N** (2019) *Tree species identity determines wood decomposition via microclimatic effects*. ***Ecology & Evolution*** 9: 12113-12127; https://doi.org/10.1002/ece3.5665.

249 Cesarz S, Schulz AE, Beugnon R, **Eisenhauer N** (2019) *Testing soil nematode extraction efficiency using different variations of the Baermann-funnel method*. ***Soil Organisms*** 91: 61-72. https://doi.org/10.25674/so91201.

248 Phillips HRP, Beaumelle L, Tyndall K, Burton VJ, Cameron EK, **Eisenhauer N**, Ferlian O (2019) *The effects of global change on soil faunal communities: a meta-analytic approach*. ***Research Ideas and Outcomes*** 5: e36427. https://doi.org/10.3897/rio.5.e36427.

247 González Macé O, Ebeling A, **Eisenhauer N**, Cesarz S, Scheu S (2019) *Variations in trophic niches of generalist predators with plant community composition as indicated by stable isotopes and fatty acids*. ***Soil Organisms*** 91: 45-59. https://doi.org/10.25674/so91204.

246 Eisenhauer N and Guerra CA (2019) *Global maps of soil nematode worms*. ***Nature*** 572: 187-188, DOI: 10.1038/d41586-019-02197-0.

245 Eisenhauer N and Xylander WER (2019) *Soil Organisms – an international open access journal on the taxonomic and functional biodiversity in the soil*. ***Soil Organims*** 91: 33-35. https://doi.org/10.25674/so91200.

244 Wagg C, Barry KE, O'Brien MJ, McKenzie-Gopsill A, Roscher C, **Eisenhauer N**, Schmid B (2019) *Not even wrong: comment.* ***Ecology*** 100: e02805. https://doi.org/10.1002/ecy.2805.

243 Sendek A, Karakoç C, Wagg C, Domínguez-Begines J, do Couto GM, van der Heijden MGA, Naz AA, Lochner A, Chatzinotas A, Klotz S, Gómez-Aparicio L, **Eisenhauer N** (2019) *Drought modulates interactions between arbuscular mycorrhizal fungal diversity and barley genotype diversity.* ***Scientific Reports*** 9: 9659. https://doi.org/10.1038/s41598-019-45702-1.

242 Guimarães-Steinicke C, Weigelt A, Ebeling A, **Eisenhauer N**, Duque-Lazo J, Reu B, Roscher C, Schumacher J, Wagg C, Wirth C (2019) *Terrestrial laser scanning reveals temporal changes in biodiversity mechanisms driving grassland productivity.* ***Advances in Ecological Research*** 61: 133-161. https://doi.org/10.1016/bs.aecr.2019.06.003.

241 Eisenhauer N, Bohan DA, Dumbrell AJ (2019) *Preface: Mechanistic links between biodiversity and ecosystem functioning.* ***Advances in Ecological Research*** 61: xix-xxviii. https://doi.org/10.1016/S0065-2504(19)30044-3.

240 Beugnon R, Steinauer K, Barnes AD, Ebeling A, Roscher C, **Eisenhauer N** (2019) *Plant functional trait identity and diversity effects on soil meso- and*

macrofauna in an experimental grassland. ***Advances in Ecological Research*** 61: 163-184. https://doi.org/10.1016/bs.aecr.2019.06.004.

239 Vogel A, Manning P, Cadotte MW, Cowles J, Isbell F, Jousset ALC, Kimmel K, Meyer ST, Reich PB, Roscher C, Scherer-Lorenzen M, Tilman D, Weigelt A, Wright AJ, **Eisenhauer N**, Wagg C (2019) *Lost in trait space: species-poor communities are inflexible in properties that drive ecosystem functioning*. ***Advances in Ecological Research*** 61: 91-131. https://doi.org/10.1016/bs.aecr.2019.06.002.

238 Vogel A, Ebeling A, Gleixner G, Roscher C, Scheu S, Ciobanu M, Koller-France E, Lange M, Lochner A, Meyer ST, Oelmann Y, Wilcke W, Schmid B, **Eisenhauer N** (2019) *A new experimental approach to test why biodiversity effects strengthen as ecosystems age.* ***Advances in Ecological Research*** 61: 221-264. https://doi.org/10.1016/bs.aecr.2019.06.006.

237 Hines J, Ebeling A, Barnes AD, Brose U, Scherber C, Scheu S, Tscharntke T, Weisser WW, Giling DP, Klein A-M, **Eisenhauer N** (2019) *Mapping change in biodiversity and ecosystem function research: Food webs foster integration of experiments and science policy.* ***Advances in Ecological Research*** 61: 297-322. https://doi.org/10.1016/bs.aecr.2019.06.008.

236 Manning P, Loos J, Barnes AD, Batáry P, Bianchi FJJA, Buchmann N, De Deyn GB, Ebeling A, **Eisenhauer N**, Fischer M, Fründ J, Grass I, Isselstein J, Jochum M, Klein A-M, Klingenberg EOF, Landis DA, Lepš J, Lindborg R, Meyer ST, Temperton V, Westphal C, Tscharntke T (2019) *Transferring biodiversity-ecosystem function research to the management of 'real-world' ecosystems*. ***Advances in Ecological Research*** 61: 323-356. https://doi.org/10.1016/bs.aecr.2019.06.009.

235 Frelich LE, Blossey B, Cameron EK, Dávalos A, **Eisenhauer N**, Fahey T, Ferlian O, Groffman PM, Larson E, Loss SR, Maerz JC, Nuzzo V, Yoo K, Reich PB (2019) *Side-swiped: Ecological cascades emanating from earthworm invasion.* ***Frontiers in Ecology and the Environment*** 17: 502-510. https://doi.org/10.1002/fee.2099.

234 **Eisenhauer N**, Schielzeth H, Barnes AD, Barry KE, Bonn A, Brose U, Bruelheide H, Buchmann N, Buscot F, Ebeling A, Ferlian O, Freschet GT, Giling DP, Hättenschwiler S, Hillebrand H, Hines J, Isbell F, Koller-France E, König-Ries B, de Kroon H, Meyer ST, Milcu A, Müller J, Nock CA, Petermann JS,

Roscher C, Scherber C, Scherer-Lorenzen M, Schmid B, Schnitzer SA, Schuldt A, Tscharntke T, Türke M, van Dam NM, van der Plas F, Vogel A, Wagg C, Wardle DA, Weigelt A, Weisser WW, Wirth C, Jochum M (2019) *A multitrophic perspective on biodiversity–ecosystem functioning research.* ***Advances in Ecological Research*** 61: 1-54. https://doi.org/10.1016/bs.aecr.2019.06.001.

233 Barry KE, Weigelt A, van Ruijven J, de Kroon H, Ebeling A, **Eisenhauer N**, Gessler A, Ravenek JM, Scherer-Lorenzen M, Oram NJ, Vogel A, Wagg C, Mommer L (2019) *Above- and belowground overyielding are related at the community and species level in a grassland biodiversity experiment.* ***Advances in Ecological Research*** 61: 55-89. https://doi.org/10.1016/bs.aecr.2019.05.001.

232 Thakur MP, Del Real IM, Cesarz S, Steinauer K, Reich PB, Hobbie S, Ciobanu M, Rich R, Worm K, **Eisenhauer N** (2019) *Soil microbial, nematode, and enzymatic responses to elevated CO_2, N fertilization, warming, and reduced precipitation.* ***Soil Biology and Biochemistry*** 135: 184-193. https://doi.org/10.1016/j.soilbio.2019.04.020.

231 Craven D, Winter M, Hotzel K, Gaikwad J, **Eisenhauer N**, Hohmuth M, König-Ries B, Wirth C (2019) *Evolution of integration and interdisciplinarity in biodiversity science*. ***Ecology and Evolution*** 9: 6744-6755. https://doi.org/10.1002/ece3.5244.

230 Eisenhauer N, Ferlian O, Craven D, Hines J, Jochum M (2019) *Ecosystem responses to exotic earthworm invasion in northern North American forests*. ***Research Ideas and Outcomes*** 5: e34564. https://doi.org/10.3897/rio.5.e34564.

229 Yin R, **Eisenhauer N**, Gruss I, Purahong W, Schmidt A, Siebert J, Schädler M (2019) *Climate change does not alter land-use effects on soil fauna communities*. ***Applied Soil Ecology*** 140: 1-10. https://doi.org/10.1016/j.apsoil.2019.03.026.

228 Ristok C, Poeschl Y, Dudenhöffer J-H, Ebeling A, **Eisenhauer N**, Vergara F, Wagg C, van Dam NM and Weinhold A (2019) *Plant species richness elicits changes in the metabolome of grassland species* via *soil biotic legacy*. ***Journal of Ecology*** 107: 2240-2254. https://doi.org/10.1111/1365-2745.13185.

227 Guerrero-Ramírez NR, Reich PB, Wagg C, Ciobanu M and **Eisenhauer N** (2019) *Diversity-dependent plant-soil feedbacks underlie long-term plant diversity effects on primary productivity*. ***Ecosphere*** 10: e02704. https://doi.org/10.1002/ecs2.2704.

226 Siebert J, **Eisenhauer N***, Poll C, Marhan S, Bonkowski M, Hines J, Koller R, Ruess L, Thakur MP* (2019) *Earthworms modulate the effects of climate warming on the taxon richness of soil meso- and macrofauna in an agricultural system*. ***Agriculture, Ecosystems and Environment*** 278: 72-80. https://doi.org/10.1016/j.agee.2019.03.004. *shared senior authorship

225 Cameron EK, Martins IS, Lavelle P, Mathieu J, Tedersoo J, Bahram M, Gottschall F, Guerra CA, Hines J, Patoine G, Siebert J, Winter M, Cesarz S, Ferlian O, Kreft H, Lovejoy TE, Montanarella L, Orgiazzi A, Pereira HM, Phillips HRP, Settele J, Wall DH and **Eisenhauer N** (2019) *Global mismatches in aboveground and belowground biodiversity*. ***Conservation Biology*** 33: 1187–1192. https://doi.org/10.1111/cobi.13311.

224 Schuldt A, Ebeling A, Kunz M, Staab M, Guimarães-Steinicke C, Bachmann D, Buchmann N, Durka W, Fichtner A, Fornoff F, Härdtle W, Hertzog L, Klein A-M, Roscher C, Schaller J, von Oheimb G, Weigelt A, Weisser W, Wirth C, Zhang J, Bruelheide H and **Eisenhauer N** (2019) *Multiple plant diversity components drive consumer communities across ecosystems*. ***Nature Communications*** 10: Article number: 1460. https://doi.org/10.1038/s41467-019-09448-8.

223 Thakur MP, Quast V, van Dam NM, **Eisenhauer N**, Roscher C, Biere A, Martinez-Medina A (2019) *Interactions between functionally diverse fungal mutualists inconsistently affect plant performance and competition*. ***Oikos*** 128: 1136-1146. https://doi.org/10.1111/oik.06138.

222 Siebert J, Thakur MP, Reitz T, Schädler M, Schulz E, Yin R, Weigelt A and **Eisenhauer N** (2019) *Extensive grassland-use sustains high levels of soil biological activity, but does not alleviate detrimental climate change effects*. ***Advances in Ecological Research*** 60: 25-58. https://doi.org/10.1016/bs.aecr.2019.02.002.

221 Shao Y, Zhang W, **Eisenhauer N**, Liu T, Ferlian O, Wang X, Xiong Y, Liang C, Fu S (2019) *Exotic earthworms maintain soil biodiversity by altering bottom-up effects of plants on the composition of main soil microbial and nematode communities*. ***Biology and Fertility of Soils*** 55: 213-227. https://doi.org/10.1007/s00374-019-01343-0.

220 Giling DP, Ebeling A, **Eisenhauer N**, Meyer ST, Roscher C, Rzanny M, Voigt W, Weisser WW, Hines J (2019) *Plant diversity alters the representation of motifs*

in food webs. ***Nature Communications*** 10, Article number: 1226. https://doi.org/10.1038/s41467-019-08856-0.

219 Yin R, **Eisenhauer N**, Auge H, Purahong W, Schmidt A, Schädler M (2019) *Additive effects of experimental climate change and land use on faunal contribution to litter decomposition*. ***Soil Biology and Biochemistry*** 131: 141-148. https://doi.org/10.1016/j.soilbio.2019.01.009.

218 Hines J, Giling D, Rzanny M, Voigt W, Meyer ST, Weisser WW, **Eisenhauer N**, Ebeling (2019) *A meta food web for invertebrate species collected in an experimental grassland*. ***Ecology*** 100: e02679. https://doi.org/10.1002/ecy.2679.

217 Firn J, McGree J, Harvey E, Flores-Moreno H, Schuetz M, Buckley Y, Borer E, Seabloom E, La Pierre K, MacDougall AS, Prober S, Stevens C, Sullivan L, Porter E, Ladouceur E, Allen C, Moromizato KH, Morgan J, Harpole WS, Hautier Y, **Eisenhauer N**, Wright J, Adler P, Arnillas C, Bakker J, Biederman L, Broadbent A, Brown C, Bugalho M, Caldeira M, Cleland E, Ebeling A, Fay P, Hagenah N, Kleinhesselink A, Mitchell R, Moore J, Nogueira C, Peri P, Roscher C, Smith M, Wragg P, Risch A (2019) *Leaf nutrients not specific leaf area are consistent indicators of elevated nutrient inputs*. ***Nature Ecology and Evolution*** 3: 400-406. https://doi.org/10.1038/s41559-018-0790-1.

216 Schulze ED, Craven D, Durso AM, Reif J, Guderle M, Kroiher F, Hennig P, Weiserbs A, Schall P, Ammer C, **Eisenhauer N** (2019) *Positive association between forest management, environmental change, and forest bird abundance*. ***Forest Ecosystems*** 6: 3. https://doi.org/10.1186/s40663-019-0160-8.

215 Ciobanu M, **Eisenhauer N**, Stoica I-A, Cesarz S (2019) *Natura 2000 priority and non-priority habitats do not differ in soil nematode diversity*. ***Applied Soil Ecology*** 135: 166-173. https://doi.org/10.1016/j.apsoil.2018.12.009.

214 Eisenhauer N, Bonn A, Guerra CA (2019) *Recognizing the quiet extinction of invertebrates*. ***Nature Communications*** 10: Article number 50. https://doi.org/10.1038/s41467-018-07916-1.

213 Bandowe BAM, Leimer S, Meusel H, Velescu A, Dassen S, **Eisenhauer N**, Hoffmann T, Oelmann Y, Wilcke W (2019) Plant diversity enhances the natural attenuation of polycyclic aromatic compounds (PAHs and oxygenated PAHs) in grassland soils. ***Soil Biology and Biochemistry*** 129: 60-70. https://doi.org/10.1016/j.soilbio.2018.10.017.

212 Siebert J, Sünnemann M, Auge H, Berger S, Cesarz S, Ciobanu M, Guerrero-Ramírez, **Eisenhauer N** (2019) *The effects of drought and nutrient addition on soil organisms vary across taxonomic groups, but are constant across seasons*. ***Scientific Reports*** 9: Article number 639. https://doi.org/10.1038/s41598-018-36777-3.

211 Domínguez-Beginesa J, De Deyn GB, García LV, **Eisenhauer N**, Gómez-Aparicioa L (2019) *Cascading spatial and trophic impacts of oak decline on the soil food web*. ***Journal of Ecology*** 107: 1199-1214. https://doi.org/10.1111/1365-2745.13091.

210 Giling DP, Beaumelle L, Phillips HR, Cesarz S, **Eisenhauer N**, Ferlian O, Gottschall F, Guerra C, Hines J, Sendek A, Siebert J, Thakur MP, Barnes A (2019) *A niche for ecosystem multifunctionality in global change research*. ***Global Change Biology*** 25: 763-774. https://doi.org/10.1111/gcb.14528.

209 Dunn RR, Reese A, **Eisenhauer N** (2019) *Biodiversity-ecosystem function relationships on bodies and in buildings*. ***Nature Ecology and Evolution*** 3: 7–9. https://doi.org/10.1038/s41559-018-0750-9.

208 Fischer C, Leimer S, Roscher C, Ravenek J, de Kroon H, Kreutziger Y, Baade J, Bessler H, **Eisenhauer N**, Weigelt A, Mommer L, Lange M, Gleixner G, Wilcke W, Schröder B, Hildebrandt A (2019*) Plant species richness and functional groups have different effects on soil water content in a decade-long grassland experiment.* ***Journal of Ecology*** 107: 127-141. https://doi.org/10.1111/1365-2745.13046.

2018 [33 papers]

207 Meyer ST, **Eisenhauer N**, Jochum M, Jena Experiment Consortium, Weisser WW (2018) *Effects of biodiversity on ecosystem functioning in a grassland experiment and implications for management*. In Sustainable meat and milk production from grasslands. ***Proceedings of the 27th General Meeting of the European Grassland Federation***, Cork, Ireland, 17-21 June 2018 (pp. 816-818). Teagasc, Animal & Grassland Research and Innovation Centre.

206 Thakur MP, Griffin JN, Künne T, Dunker S, Fanesi A, **Eisenhauer N** (2018) *Temperature effects on basal resources exceed that of predators in an*

experimental community. ***Ecology and Evolution*** 8: 12670–12680. https://doi.org/10.1002/ece3.4695.

205 Eisenhauer N*, Hines J*, Isbell F, van der Plas F, Hobbie SE, Kazanski CE, Lehmann A, Liu M, Lochner A, Rillig MC, Vogel A, Worm K, Reich PB (2018) *Plant diversity maintains multiple soil functions in future environments*. ***eLife*** 7: e41228. https://doi.org/10.7554/eLife.41228. *shared first authorship

204 Eisenhauer N, Vogel A, Jensen B, Scheu S (2018) *Decomposer diversity increases biomass production and shifts aboveground-belowground biomass allocation of common wheat*. ***Scientific Reports*** 8: 17894. https://doi.org/10.1038/s41598-018-36294-3.

203 Shao Y, Liu T, **Eisenhauer N**, Zhang W, Wang X, Xiong Y, Liang C, Fu S (2018) *Plants mitigate detrimental nitrogen deposition effects on soil biodiversity*. ***Soil Biology and Biochemistry*** 127: 178-186. https://doi.org/10.1016/j.soilbio.2018.09.022.

202 Eisenhauer N, Herrmann S, Hines J, Buscot F, Siebert J, Thakur MP (2018) *The dark side of animal phenology*. ***Trends in Ecology and Evolution*** 33: 898-901. https://doi.org/10.1016/j.tree.2018.09.010.

201 Ferlian O, Biere A, Bonfante P, Buscot B, **Eisenhauer N**, Fernandez I, Hause B, Herrmann S, Krajinski-Barth F, Meier IC, Pozo MJ, Rasmann S, Rillig MC, Tarkka MT, van Dam NM, Wagg C, Martinez-Medina A (2018) *Growing Research Networks on Mycorrhizae for Mutual Benefits*. ***Trends in Plant Science*** 23: 975-984. https://doi.org/10.1016/j.tplants.2018.08.008.

200 Craven D, **Eisenhauer N**, Pearse WD, Hautier Y, Isbell F, Roscher C, Bahn M, Beierkuhnlein C, Bönisch G, Buchmann N, Byun C, Catford JA, Cerabolini BEL, Cornelissen JHC, Craine JM, De Luca E, Ebeling A, Griffin JN, Hector A, Hines J, Jentsch A, Kattge J, Kreyling J, Lanta V, Lemoine N, Meyer ST, Minden V, Onipchenko V, Polley HW, Reich PR, van Ruijven J, Schamp B, Smith MD, Soudzilovskaia NA, Tilman D, Weigelt A, Wilsey B, Manning P (2018) *Multiple facets of biodiversity drive the diversity-stability relationship.* ***Nature Ecology and Evolution*** 2: 1579–1587. https://doi.org/10.1038/s41559-018-0647-7.

199 Buchmann T, Schumacher J, Ebeling A, **Eisenhauer N**, Fischer M, Gleixner G, Hacker N, Lange M, Oelmann Y, Schulze E-D, Weigelt A, Weisser WW, Wilcke W, Roscher C (2018) *Connecting experimental biodiversity research to real-world*

grasslands. ***Perspectives in Plant Ecology, Evolution and Systematics*** 33: 78-88. https://doi.org/10.1016/j.ppees.2018.06.002.

198 Kuťáková E, Cesarz S, Münzbergová Z, **Eisenhauer N** (2018) *Soil microarthropods alter the outcome of plant-soil feedback experiments*. ***Scientific Reports*** 8: 11898. https://doi.org/10.1038/s41598-018-30340-w.

197 Wei X, Cao R, Wu X, **Eisenhauer N**, Sun S (2018) *Effect of water table decline on the abundances of soil mites, springtails, and nematodes in the Zoige peatland of eastern Tibetan Plateau*. ***Applied Soil Ecology*** 129: 77-83. https://doi.org/10.1016/j.apsoil.2018.05.006.

196 Brüning LZ, Krieger M, Meneses-Pelayo E, **Eisenhauer N**, Ramirez Pinilla MP, Reu B, Ernst R (2018) *Land-use heterogeneity by small-scale agriculture promotes amphibian diversity in montane agroforestry systems of northeast Colombia*. ***Agriculture, Ecosystems and Environment*** 264: 15-23. https://doi.org/10.1016/j.agee.2018.05.011.

195 Cameron EK, Martins IS, Lavelle P, Mathieu J, Tedersoo L, Gottschall F, Guerra CA, Hines J, Patoine G, Siebert J, Winter M, Cesarz S, Delgado-Baquerizo M, Ferlian O, Fierer N, Kreft H, Lovejoy TE, Montanarella L, Orgiazzi A, Pereira HM, Phillips HRP, Settele J, Wall DH, **Eisenhauer N** (2018) *Global gaps in soil biodiversity data*. ***Nature Ecology and Evolution*** 2: 1042–1043. https://doi.org/10.1038/s41559-018-0573-8.

194 Baert JM, **Eisenhauer N**, Janssen CR, De Laender F (2018) *Biodiversity effects on ecosystem functioning respond unimodally to environmental stress.* ***Ecology Letters*** 21: 1191-1199. https://doi.org/10.1111/ele.13088.

193 Ferlian O, Cesarz S, Craven D, Hines J, Barry KE, Bruelheide H, Buscot F, Haider S, Heklau S, Herrmann S, Kühn P, Pruschitzki U, Schädler M, Wagg C, Weigelt A, Wubet T, **Eisenhauer N** (2018) *Mycorrhiza in tree diversity–ecosystem function relationships: conceptual framework and experimental implementation.* ***Ecosphere*** 9: e02226. https://doi.org/10.1002/ecs2.2226.

192 Ai F, **Eisenhauer N**, Xie Y, Zhu J, Jousset A, Du W, Yin Y, Zhang X, Ji R, Guo H (2018) *Elevated CO_2 accelerates polycyclic aromatic hydrocarbon accumulation in a paddy soil grown with rice.* ***Plos One*** 13: e0196439. https://doi.org/10.1371/journal.pone.0196439.

191 Eisenhauer N (2018) *Impacts of free-ranging cats on invertebrates*. ***Frontiers in Ecology and the Environment*** 16: 262-263. https://doi.org/10.1002/fee.1805.

190 Ai F, **Eisenhauer N**, Jousset A, Butenschoen O, Ji R, Guo H (2018) *Elevated tropospheric CO_2 and O_3 concentrations impair organic pollutant removal from grassland soil*. ***Scientific Reports*** 8: 5519. https://doi.org/10.1038/s41598-018-23522-z.

189 Paquette A, Hector A, Castagneyrol B, Vanhellemont M, Koricheva J, Scherer-Lorenzen M, Verheyen K, and TreeDivNet including **Eisenhauer N** et al. *A million and more trees for science*. ***Nature Ecology & Evolution*** 2: 763-766. https://doi.org/10.1038/s41559-018-0544-0.

188 **Eisenhauer N** (2018) Aboveground-belowground interactions drive the relationship between plant diversity and ecosystem function. ***Research Ideas and Outcomes*** 4: e23688. https://doi.org/10.3897/rio.4.e23688.

187 Li Y, Xi Chen, Veen GF (Ciska), **Eisenhauer N**, Liang Y, Zhou X, Zhang N, Ma K (2018) *Negative effects of litter richness on root decomposition in the presence of detritivores*. ***Functional Ecology*** 32: 1079-1090. https://doi.org/10.1111/1365-2435.13057.

186 Djukic I, Kepfer-Rojas S, Kappel Schmidt I, Steenberg Larsen K, Beier C, Berg B, Verheyen K, […] **Eisenhauer N**, […] (2018) *Early stage litter decomposition across biomes.* ***Science of the Total Environment*** 628–629: 1369–1394. https://doi.org/10.1016/j.scitotenv.2018.01.012.

185 Türke M, Lange M, **Eisenhauer N** (2018) *Gut shuttle service: endozoochory of dispersal-limited soil fauna by gastropods.* ***Oecologia*** 186: 655-664, doi: 10.1007/s00442-018-4058-x. https://doi.org/10.1007/s00442-018-4058-x.
Highlighted in Science by Yao-Hua Law "This mite's method of hitchhiking is not recommended".

184 Guiz J, Ebeling A, **Eisenhauer N**, Hacker N, Hertzog L, Oelmann Y, Roscher C, Wagg C, Hillebrand H (2018) *Interspecific competition alters leaf stoichiometry in 20 grassland species.* ***Oikos*** 127: 903-914. https://doi.org/10.1111/oik.04907.

183 **Eisenhauer N,** Türke M (2018) *From climate chambers to biodiversity chambers.* ***Frontiers in Ecology and the Environment*** 16: 136-137. https://doi.org/10.1002/fee.1784.

182 Grossman JJ, Vanhellemont M, Barsoum N, Bauhus J, Bruelheide H, Castagneyrol B, Cavender-Bares J, **Eisenhauer N**, Ferlian O, Gravel D, Hector A, Jactel H, Kreft H, Mereu S, Messier C, Muys B, Nock C, Paquette A, Parker J, Perring MP, Ponette Q, Reich PB, Schuldt A, Staab M, Weih M, Zemp DC,

Scherer-Lorenzen M, Verheyen K (2018) *Synthesis and future research directions linking tree diversity to growth, survival, and damage in a global network of tree diversity experiments.* ***Environmental and Experimental Botany*** 152: 68-89. https://doi.org/10.1016/j.envexpbot.2017.12.015.

181 Barnes AD, Jochum M, Lefcheck JS, **Eisenhauer N**, Scherber C, O'Connor MI, de Ruiter P, Brose U (2018) *Energy flux: The link between multitrophic biodiversity and ecosystem functioning.* ***Trends in Ecology and Evolution*** 33: 186-197. https://doi.org/10.1016/j.tree.2017.12.007.

180 Bannar-Martin KH, Kremer CT, Ernest SKM, Leibold MA, Auge H, Chase J, Decklerck SAJ, **Eisenhauer N**, Harpole S, Hillebrand H, Isbell F, Koffel T, Larsen S, Narwani A, Petermann J, Roscher C, Sarmenta Cabral J, Supp S (2018) *Integrating community assembly and biodiversity to better understand ecosystem function: the Community Assembly and the Functioning of Ecosystems (CAFE) approach.* ***Ecology Letters*** 21: 167-180. https://doi.org/10.1111/ele.12895.

179 Milcu A, Puga-Freitas R, Ellison AM, Blouin M, Scheu S, Girin T, Frechet G, Rose L, Scherer-Lorenzen M, Barot S, Lata J-C, Cesarz S, **Eisenhauer N**, Gigon A, Weigelt A, Hansart A, Greiner A, Pando A, Gessler A, Grignani C, Assandri D, Gleixner G, Le Galliard J-F, Urban-Mead K, Zavattaro L, Muller MEH, Lange M, Lukac M, Bonkowski M, Mannerheim N, Buchnann N, Butenschoen O, Rotter P, Seyhun R, Devidal S, Kayler Z, Roy J (2018) *Genotypic variability enhances the reproducibility of an ecological study*. ***Nature Ecology & Evolution*** 2: 279–287. https://doi.org/10.1038/s41559-017-0434-x. ***Highlighted in Nature by Ewen Callaway "Why 14 ecology labs teamed up to watch grass grow".***

178 Thakur MP, Reich PB, Hobbie SE, Stefanski A, Rich R, Rice KE, Eddy WC, **Eisenhauer N** (2018) *Reduced feeding activity of soil detritivores under warmer and drier conditions.* ***Nature Climate Change*** 8: 75-78, DOI: 10.1038/s41558-017-0032-6. https://doi.org/10.1038/s41558-017-0032-6.

177 Ferlian O, **Eisenhauer N**, Aguirrebengoa M, Camara M, Ramirez-Rojas I, Santos F, Tanalgo K and Thakur MP (2018) *Invasive earthworms erode soil biodiversity: A meta-analysis*. ***Journal of Animal Ecology 87***: 162-172. https://doi.org/10.1111/1365-2656.12746.

176 Ebeling A, Rzanny M, Lange M, **Eisenhauer N**, Hertzog LR, Meyer ST, Weisser WW (2017) *Plant diversity induces shifts in the functional structure and diversity across trophic levels*. ***Oikos*** 127: 208-219. https://doi.org/10.1111/oik.04210.

175 Meyer ST, Ptacnik R, Hillebrand H, Bessler H, Buchmann N, Ebeling A, **Eisenhauer N**, Engels C, Fischer M, Halle S, Klein AM, Oelmann Y, Roscher C, Rottstock T, Scherber C, Scheu S, Schmid B, Schulze ED, Temperton VM, Tscharntke T, Voigt W, Weigelt A, Wilcke W, Weisser WW (2018) *Biodiversity–multifunctionality relationships depend on identity and number of measured functions.* ***Nature Ecology & Evolution*** 2: 44-49. https://doi.org/10.1038/s41559-017-0391-4.

2017 [34 papers]

174 Eisenhauer N, Kratz W, Neinaß J, Powell JR (2017) *Resolution of respect for Ekkehard von Törne (1925 – 2017).* ***Pedobiologia*** 64: 40-41. https://doi.org/10.1016/j.pedobi.2017.05.002.

173 Xi X, Yang, Y, Yang, X, Nylin S, **Eisenhauer N**, Sun S (2017) *Differential responses of body growth to artificial warming between parasitoids and hosts and the consequences for plant seed damage.* ***Scientific Reports*** 7, 15472. https://doi.org/10.1038/s41598-017-15453-y.

172 Hines J, Pabst S, Blumenthal DM, Cesarz S, Mueller KE and **Eisenhauer N** (2017) *Soil-mediated effects of global change on plants communities depend on plant growth form.* ***Ecosphere*** 8: e01996. https://doi.org/10.1002/ecs2.1996.

171 Schwarz B, Barnes AD, Thakur MP, Brose U, Ciobanu M, Reich PB, Rich RL, Rosenbaum B, Stefanski A and **Eisenhauer N** (2017) *Warming alters energetic structure and function but not resilience of soil food webs.* ***Nature Climate Change*** 7: 895-900. https://doi.org/10.1038/s41558-017-0002-z.

170 Eisenhauer N (2017) *Consumers control carbon.* ***Nature Ecology & Evolution*** 1: 1596-1597. https://doi.org/10.1038/s41559-017-0352-y.

169 Chen H, Oram NJ, Barry KE, Mommer L, van Ruijven J, de Kroon H, Ebeling A, **Eisenhauer N**, Fischer C, Gleixner G, Gessler A, Gonzaléz Macé O, Hacker N, Hildebrandt A, Lange M, Scherer-Lorenzen M, Scheu S, Oelmann Y, Wagg C, Wilcke W, Wirth C and Weigelt A (2017) *Root chemistry and soil fauna, but not*

soil abiotic conditions explain the effects of plant diversity on root decomposition. ***Oecologia*** 185: 499-511. https://doi.org/10.1007/s00442-017-3962-9.

168 Wagg C, O'Brien MJ, Vogel A, Scherer-Lorenzen M, **Eisenhauer N**, Schmid B and Weigelt A (2017) *Plant diversity maintains long-term ecosystem productivity under frequent drought by increasing short-term variation.* ***Ecology*** 98: 2952-2961. https://doi.org/10.1002/ecy.2003.

167 Klein A, Cameron EK, Heimburger B, **Eisenhauer N**, Scheu S and Schaefer I (2017) *Changes in the genetic structure of an invasive earthworm species (*Lumbricus terrestris*, Lumbricidae) along an urban–rural gradient in North America.* ***Applied Soil Ecology*** 120: 265-272. https://doi.org/10.1016/j.apsoil.2017.08.009.

166 Eisenhauer N and Powell JR (2017) *Plant trait effects on soil organisms and functions.* ***Pedobiologia*** 65: 1-4. https://doi.org/10.1016/j.pedobi.2017.11.001.

165 Guerrero-Ramirez NR, Craven D, Reich PB, Ewel JJ, Isbell F, Koricheva J, Parrotta JA, Auge H, Erickson HE, Forrester DI, Hector H, Joshi J, Montagnini F, Palmborg C, Piotto D, Potvin C, Roscher C, van Ruijven J, Tilman D, Wilsey B and **Eisenhauer N** (2017) *Diversity-dependent temporal divergence of ecosystem functioning in experimental ecosystems.* ***Nature Ecology & Evolution 1***, 1639-1642. https://doi.org/10.1038/s41559-017-0325-1.

164 Steinauer K, Fischer FM, Roscher C, Scheu S, **Eisenhauer N** (2017) *Spatial plant resource acquisition traits explain plant community effects on soil microbial properties*. ***Pedobiologia*** 65: 50-57. https://doi.org/10.1016/j.pedobi.2017.07.005.

163 Spaak JW, Baert JM, Baird DJ, **Eisenhauer N**, Maltby L, Pomati F, Radchuk V, Rohr JR, van den Brink PJ, De Laender F (2017) *Shifts of community composition and population density substantially affect ecosystem function despite invariant richness*. ***Ecology Letters*** 20: 1315-1324. https://doi.org/10.1111/ele.12828.

162 Patoine G, Thakur MP, Friese J, Nock C, Hönig L, Haase J, Scherer-Lorenzen M, **Eisenhauer N** (2017) *Plant litter functional diversity effects on litter mass loss depend on the macro-detritivore community*. ***Pedobiologia*** 65: 29-42. https://doi.org/10.1016/j.pedobi.2017.07.003.

161 Dietrich P, Buchmann T, Cesarz S, **Eisenhauer N**, Roscher C (2017) *Fertilization, soil and plant community characteristics determine soil microbial*

activity in managed temperate grasslands. ***Plant and Soil*** 419: 189-199. https://doi.org/10.1007/s11104-017-3328-4.

160 Ferlian O, Wirth C, **Eisenhauer N** (2017) *Leaf and root C-to-N ratios are poor predictors of soil microbial biomass C and activity across 32 tree species*. ***Pedobiologia*** 65: 1623. https://doi.org/10.1016/j.pedobi.2017.06.005.

159 Wagg C, Ebeling A, Roscher C, Ravenek J, Bachmann D, **Eisenhauer N**, Mommer L, Buchmann N, Hillebrand H, Schmid B, Weisser WW (2017) *Functional trait dissimilarity drives both species complementarity and competitive disparity*. ***Functional Ecology*** 12: 2320-2329. https://doi.org/10.1111/1365-2435.12945.

158 Weisser WW, Roscher C, Meyer S, Ebeling A, Luo G, Allan E, Beßler H. Barnard R, Buchmann N, Buscot F, Engels C, Fischer C, Fischer M, Gessler A, Gleixner G, Halle S, Hildebrandt A, Hillebrand H, de Kroon H, Lange M, Leimer S, Le Roux X, Milcu A, Mommer L, Niklaus P, Oelmann Y, Proulx R, Roy J, Scherber C, Scherer-Lorenzen, Scheu S, Tscharntke T, Wachendorf M, Wagg C, Weigelt A, Wilcke W, Wirth C, Schulze E-D, Schmid B, **Eisenhauer N** (2017) *Biodiversity effects on ecosystem functioning in a 15-year grassland experiment: Patterns, mechanisms, and open questions.* ***Basic and Applied Ecology*** 23: 1-73. https://doi.org/10.1016/j.baae.2017.06.002. ***Basic and Applied Ecology best research paper award 2020*.**

157 Cesarz S, Ciobanu M, Wright JW, Ebeling E, Vogel A, Weisser W, **Eisenhauer N** (2017) *Plant species richness sustains higher trophic levels of soil nematode communities after consecutive environmental perturbations*. ***Oecologia*** 184: 715-728. https://doi.org/10.1007/s00442-017-3893-5.

156 Thakur MP, Tilman D, Purschke O, Ciobanu M, Cowles J, Isbell F, Wragg PD, **Eisenhauer N** (2017) *Climate warming promotes species diversity but also taxonomic redundancy in complex environments*. ***Science Advances*** 3: e1700866. DOI: 10.1126/sciadv.1700866.

155 Liu M, Xia H, Fu S, **Eisenhauer N** (2017) *Tree diversity regulates soil respiration through accelerated tree growth in a mesocosm experiment*. ***Pedobiologia*** 65: 24-28. https://doi.org/10.1016/j.pedobi.2017.05.005.

154 Eisenhauer N, Antunes PM, Bennett AE, Birkhofer K, Bissett A, Bowker MA, Caruso T, Chen B, Coleman DC, de Boer W, de Ruiter P, DeLuca TH, Frati F, Griffiths BS, Hart MM, Hättenschwiler S, Haimi J, Heethoff M, Kaneko N, Kelly

LC, Leinaas HP, Lindo Z, Macdonald C, Rillig MC, Ruess L, Scheu S, Schmidt O, Seastedt TR, van Straalen NM, Tiunov AV, Zimmer M, Powell JR (2017) *Priorities for research in soil ecology*. ***Pedobiologia*** 63: 1-7. DOI: 10.1016/j.pedobi.2017.05.003. https://doi.org/10.1016/j.pedobi.2017.05.003.

153 Guerrero-Ramirez NR, **Eisenhauer N** (2017) *Trophic and non-trophic interactions influence the mechanisms underlying biodiversity–ecosystem functioning relationships under different abiotic conditions.* ***Oikos*** 126: 1748-1759. https://doi.org/10.1111/oik.04190.

152 Thakur MP, Künne T, Griffin JN, **Eisenhauer N** (2017) *Warming magnifies predation and reduces prey coexistence in a model litter arthropod system.* ***Proceedings of the Royal Society B*** 284: 20162570. https://doi.org/10.1098/rspb.2016.2570.

151 Yang Y, Xi Y, Zhong X, **Eisenhauer N**, Sun S (2017) *N addition suppresses the performance of grassland caterpillars (*Gynaephora alpherakjj*) by decreasing ground temperature*. ***Ecosphere*** 8: e01755. https://doi.org/10.1002/ecs2.1755.

150 Wu X, Cao R, Wei X, Xi X, Shi P, **Eisenhauer N**, Sun S (2017) *Soil drainage facilitates earthworm invasion and subsequent carbon loss from peatland soil.* ***Journal of Applied Ecology*** 54: 1291-1300. https://doi.org/10.1111/1365-2664.12894.

149 Shao Y, Zhang W, **Eisenhauer N**, Liu T, Xiong Y, Liang C, Fu S (2017) *Nitrogen deposition cancels out exotic earthworm effects on plant-feeding nematode communities.* ***Journal of Animal Ecology*** 86: 708-717. https://doi.org/10.1111/1365-2656.12660.

148 Isbell F, Adler PR, **Eisenhauer N**, Fornara D, Kimmel K, Kremen C, Letourneau DK, Liebman M, Polley HW, Quijas S, Scherer-Lorenzen M (2017) *Benefits of increasing plant diversity in sustainable agroecosystems.* ***Journal of Ecology*** *105: 871-879.* https://doi.org/10.1111/1365-2745.12789.

147 Eisenhauer N, Lanoue A, Strecker T, Scheu S, Steinauer K, Thakur MP, Mommer L (2017) *Root biomass and exudates link plant diversity with soil bacterial and fungal biomass.* ***Scientific Reports*** 7: 44641. https://doi.org/10.1038/srep44641.

146 Phillips HRP, Cameron EK, Ferlian O, Türke M, Winter M, **Eisenhauer N** (2017) *Red list of a black box.* ***Nature Ecology and Evolution*** 1: article no 0103. https://doi.org/10.1038/s41559-017-0103.

145 Cortois R, Veen GFC, Duyts H, Abbas M, Strecker T, **Eisenhauer N**, Scheu S, Gleixner G, De Deyn G, van der Putten W (2017) *Possible mechanisms underlying abundance and diversity responses of nematode communities to plant diversity*. ***Ecosphere*** 8: e01719. https://doi.org/10.1002/ecs2.1719.

144 Clause J, Forey E, **Eisenhauer N**, Seal CE, Soudey A, Colville L, Barot S (2017) *Seed selection by earthworms: chemical seed properties matter more than morphological traits*. ***Plant and Soil*** 413: 97-110. https://doi.org/10.1007/s11104-016-3085-9.

143 Wright AJ, de Kroon H, Visser EJW, Buchmann T, Ebeling A, **Eisenhauer N**, Fischer C, Hildebrandt A, Ravenek J, Roscher C, Weigelt A, Weisser WW, Voesenek LACJ, Mommer L (2017) *Plants are less negatively affected by flooding when growing in species-rich plant communities.* ***New Phytologist*** 213: 645–656. https://doi.org/10.1111/nph.14185.

142 Craven D, Thakur MP, Cameron EK, Frelich LE, Beausejour R, Blair RB, Blossey B, Burtis J, Choi A, Dávalos A, Fahey TJ, Fisichelli NA, Gibson K, Handa IT, Hopfensperger K, Loss SR, Nuzzo V, Maerz JC, Sackett T, Scharenboch BC, Smith SM, Vellend M, Umek LG, **Eisenhauer N** (2017) *The unseen invaders: introduced earthworms as drivers of change in plant communities in North American forests (a meta-analysis).* ***Global Change Biology*** 23: 1065-1074. https://doi.org/10.1111/gcb.13446.

141 Thakur MP, Reich PB, Wagg C, Fisichelli NA, Ciobanu M, Hobbie SE, Rich RL, Stefanski A, **Eisenhauer N** (2017) *Effects of soil warming history on the performances of congeneric temperate and boreal herbaceous plant species and their associations with soil biota*. ***Journal of Plant Ecology 10: 670-680***. https://doi.org/10.1093/jpe/rtw066.

2016 [24 papers]

140 Leimer S, Oelmann Y, **Eisenhauer N**, Milcu A, Roscher C, Scheu S, Weigelt A, Wirth C, Wilcke W (2016) *Mechanisms behind plant diversity effects on inorganic and organic N leaching from temperate grassland.* ***Biogeochemistry*** 131: 339-353. https://doi.org/10.1007/s10533-016-0283-8.

139 Hu J, Wei Z, Friman V-P, Gu S-H, Wang X-F, **Eisenhauer N**, Yang T-J, Ma J, Shen Q-R, Xu Y-C, Jousset A (2016) *Probiotic diversity enhances rhizosphere*

microbiome function and plant disease suppression. ***mBio*** 6: e01790-16. DOI: 10.1128/mBio.01790-16.

138 Macé OG, Steinauer K, Jousset A, **Eisenhauer N**, Scheu S (2016) *Flood-induced changes in soil microbial functions as modified by plant diversity*. ***Plos One*** 11: e0166349. https://doi.org/10.1371/journal.pone.0166349.

137 Meyer ST, Ebeling A, **Eisenhauer N**, Hertzog L, Hillebrand H, Milcu A, Pompe S, Abbas M, Bessler H, Buchmann N, De Luca E, Engels C, Fischer M, Gleixner G, Hundewenz A, Klein A-M, de Kroon H, Leimer S, Loranger H, Mommer Y, Oelmann Y, Ravenek JM, Roscher C, Rottstock T, Scherber C, Scherer-Lorenzen M, Scheu S, Schmid B, Schulze E-D, Staudler A, Strecker T, Temperton V, Tscharntke T, Vogel A, Voigt W, Weigelt A, Wilcke W, Weisser WW (2016) *Effects of biodiversity strengthen over time as ecosystem functioning declines at low and increases at high biodiversity*. ***Ecosphere*** 7: e01619. https://doi.org/10.1002/ecs2.1619.

136 De Laender F, Rohr JR, Ashauer R, Baird DJ, Berger U, **Eisenhauer N**, Grimm V, Hommen U, Maltby L, Meliàn CJ, Pomati F, Roessink I, Radchuck V, Van den Brink PJ (2016) *Reintroducing environmental change drivers in biodiversity–ecosystem functioning research*. ***Trends in Ecology and Evolution*** 31: 905-915. https://doi.org/10.1016/j.tree.2016.09.007.

135 Cesarz S, Craven D, Dietrich C, **Eisenhauer N** (2016) *Effects of soil and leaf litter quality on the biomass of two endogeic earthworm species*. ***European Journal of Soil Biology*** 77: 9-16. https://doi.org/10.1016/j.ejsobi.2016.09.002.

134 Xi X, Li D, Peng Y, **Eisenhauer N**, Sun S (2016) *Experimental warming and precipitation interactively modulate the mortality rate and timing of spring emergence of a gallmaking Tephritid fly*. ***Scientific Reports*** 6: 32284. https://doi.org/10.1038/srep32284.

133 Steinauer K, Chatzinotas A, **Eisenhauer N** (2016) *Root exudate cocktails: the link between plant diversity and soil microorganisms?* ***Ecology and Evolution*** 6: 7387-7396. https://doi.org/10.1002/ece3.2454.

132 Mueller KE, Blumenthal DM, Carrillo Y, Cesarz S, Ciobanu M, Hines J, Pabst S, Pendall E, de Tomasel CM, Wall DH, **Eisenhauer N** (2016) *Elevated CO_2 and warming shift the functional composition of soil nematode communities in a semiarid grassland.* ***Soil Biology and Biochemistry*** 103: 46-51. https://doi.org/10.1016/j.soilbio.2016.08.005.

131 Jousset A, **Eisenhauer N**, Merker M, Mouquet N, Scheu S (2016) *High functional diversity stimulates diversification in experimental microbial communities*. ***Science Advances*** 2: e1600124. DOI: 10.1126/sciadv.1600124.

130 Eisenhauer N, Barnes AD, Cesarz S, Craven D, Ferlian O, Gottschall F, Hines J, Sendek A, Siebert J, Thakur MP, Türke M (2016) *Biodiversity–ecosystem function experiments reveal the mechanisms underlying the consequences of biodiversity change in real world ecosystems*. ***Journal of Vegetation Science*** 27: 1061-1070. https://doi.org/10.1111/jvs.12435.

129 Eisenhauer N (2016) *Plant diversity effects on soil microorganisms: spatial and temporal heterogeneity of plant inputs increase soil biodiversity*. ***Pedobiologia*** 59: 175-177. https://doi.org/10.1016/j.pedobi.2016.04.004.

128 Hertzog LR, Ebeling A, Meyer ST, Wagg C, **Eisenhauer N**, Weisser WW (2016) *High survival of Lasius niger during Summer Flooding in a European grassland*. ***Plos One***, 11: e0152777. https://doi.org/10.1371/journal.pone.0152777.

127 Strecker T, González Macé O, Scheu S, **Eisenhauer N** (2016) *Functional composition of plant communities determines the spatial and temporal stability of soil microbial properties in a long-term plant diversity experiment*. ***Oikos*** 125: 1743-1754. https://doi.org/10.1111/oik.03181.

126 Latz E, **Eisenhauer N**, Rall BC, Scheu S, Jousset A (2016) *Unravelling linkages between plant community composition and the pathogen-suppressive potential of soils*. ***Scientific Reports*** 6: 23584. https://doi.org/10.1038/srep23584.

125 Steinauer K, Jensen B, Strecker T, de Luca E, Scheu S, **Eisenhauer N** (2016) *Convergence of soil microbial properties after plant colonization of an experimental plant diversity gradient*. ***BMC Ecology*** 16: 19. https://doi.org/10.1186/s12898-016-0073-0. **BMC Ecology Featured Article**.

124 Do Couto GM, **Eisenhauer N**, de Oliveira EB, Cesarz S, Feliciano ALP, Marangon LC (2016) *Response of soil microbial biomass and activity in early restored lands in the northeastern Brazilian Atlantic Forest*. ***Restoration Ecology*** 24: 609-616. https://doi.org/10.1111/rec.12356.

123 Fischer FM, Wright AJ, **Eisenhauer N**, Ebeling A, Roscher C, Wagg C, Weigelt A, Weisser WW, Pillar VD (2016) *Plant species richness and functional traits affect community stability after a flood event*. ***Philosophical Transactions of the Royal Society B*** 371: 20150276. https://doi.org/10.1098/rstb.2015.0276.

122 Craven D, Isbell F, Manning P, Connolly J, Bruelheide H, Ebeling A, Roscher C, van Ruijven J, Weigelt A, Wilsey B, Beierkuhnlein C, de Luca E, Griffin JN, Hautier Y, Hector A, Jentsch A, Kreyling J, Lanta V, Loreau M, Meyer ST, Mori AS, Naeem S, Palmborg C, Polley HW, Reich PB, Schmid B, Siebenkäs A, Seabloom E, Thakur MP, Tilman D, Vogel A, **Eisenhauer N** (2016) *Plant diversity effects on grassland productivity are robust to both nutrient enrichment and drought*. ***Philosophical Transactions of the Royal Society B*** 371: 20150277. https://doi.org/10.1098/rstb.2015.0277.

121 Mariotte P, LeBayon R-C, **Eisenhauer N**, Guenat C, Buttler A (2016) *Subordinate plat species moderate drought effects on earthworm communities in grasslands*. ***Soil Biology and Biochemistry*** 96: 119-127. https://doi.org/10.1016/j.soilbio.2016.01.020.

120 Bohan DA, Landuyt D, Ma A, Macfadyen S, Martinet V, Massol F, McInerny G, Montoya JM, Mulder C, Pascual U, Pocock MJO, White P, Blanchemanche S, Bonkowski M, Bretagnolle V, Brönmark C, Dicks L, Dumbrell A, **Eisenhauer N**, Friberg N, Gessner MO, Gill RG, Gray C, Haughton A, Ibanez S, Jensen J, Jeppesen E, Jokela J, Lacroix G, Lannou C, Lavorel S, Le Galliard J-F, Lescourret F, Liu S, Loeuille N, McLaughlin O, Muggleton S, Peñuelas J, Petanidou T, Petit S, Pomati F, Raffaelli D, Rasmussen J, Raybould A, Reboud X, Richard G, Scherber C, Scheu S, Sutherland WJ, Tamaddoni-Nezhad A, ter Braak C, Termansen M, Thompson MSA, Tscharntke T, Vacher C, van der Geest H, Voigt W, Vonk JA, Zhou X, Woodward G (2016) *Networking Our Way to Better Ecosystem Service Provision*. ***Trends in Ecology and Evolution*** 31: 105-115. https://doi.org/10.1016/j.tree.2015.12.003.

119 Cameron E, Decaens T, Lapied E, Porco D, **Eisenhauer N** (2016) *Earthworm databases and ecological theory: Synthesis of current initiatives and main research directions*. ***Applied Soil Ecology*** 104: 85-90. https://doi.org/10.1016/j.apsoil.2015.11.012.

118 Mueller KE, **Eisenhauer N**, Reich PB, Hobbie SE, Chadwick OA, Chorover J, Dobies T, Hale CM, Jagodziński AM, Kałucka I, Kasprowicz M, Kieliszewska-Rokicka B, Modrzyński J, Rożen A, Skorupski M, Sobczyk Ł, Stasińska M, Trocha LK, Weiner J, Wierzbicka A, Oleksyn J (2016) *Light, earthworms, and soil resources as predictors of diversity of 10 soil invertebrate groups across*

monocultures of 14 tree species. ***Soil Biology and Biochemistry*** 92: 184-198. https://doi.org/10.1016/j.soilbio.2015.10.010.

117 Ferreira ACC, Leite LFC, de Araújo ASF, **Eisenhauer N** (2016) *Land-use type effects on soil organic carbon and microbial properties in a semiarid region of Northeast Brazil*. ***Land Degradation and Development*** 27: 171-178. https://doi.org/10.1002/ldr.2282.

2015 [31 papers]

116 Hines J, van der Putten WH, De Deyn GB, Wagg C, Voigt W, Mulder C, Weisser WW, Engel J, Melian C, Scheu S, Birkhofer K, Ebeling A, Scherber C, **Eisenhauer N** (2015) *Towards an integration of biodiversity–ecosystem functioning and food web theory to evaluate relationships between multiple ecosystem services.* ***Advances in Ecological Research*** 53: 161-200. https://doi.org/10.1016/bs.aecr.2015.09.001.

115 Mulder C, Bennett EM, Bohan DA, Bonkowski M, Carpenter SR, Chalmers R, Cramer W, Durance I, **Eisenhauer N**, Fontaine C, Haughton AJ, Hettelingh JP, Hines J, Ibanez S, Jeppesen E, Krumins Adams J, Ma A, Mancinelli G, Massol F, McLaughlin Ó, Naeem S, Pascual U, Peñuelas J, Pettorelli N, Pocock MJO, Raffaelli D, Rasmussen JJ, Rusch GM, Scherber C, Setälä H, Sutherland WJ, Vacher C, Voigt W, Vonk JA, Wood SA, Woodward G (2015) *10 years later: revisiting priorities for science and society a decade after the Millenium Ecosystem Assessment.* ***Advances in Ecological Research*** 53: 1-53. https://doi.org/10.1016/bs.aecr.2015.10.005.

114 Hacker N, Ebeling A, Gessler A, Gleixner G, González Macé O, de Kroon H, Lange M, Mommer L, **Eisenhauer N**, Ravenek J, Scheu S, Weigelt A, Wagg C, Wilcke W, Oelmann Y (2015) *Plant diversity shapes microbe-rhizosphere effects on P mobilization from organic matter in soil.* ***Ecology Letters*** 18: 1356-1365. https://doi.org/10.1111/ele.12530.

113 Huang J, Zhang W, Liu M, **Eisenhauer N**, Briones MJI, Shao Y, Cai X, Fu S, Xia H (2015) *Different impacts of native and exotic earthworms on rhizodeposit carbon sequestration in a subtropical soil.* ***Soil Biology and Biochemistry*** 90: 152-160. https://doi.org/10.1016/j.soilbio.2015.08.011.

112 Isbell F, Craven D, Connolly J, Loreau M, Schmid B, Beierkuhnlein H, Bezemer TM, Bonin C, Bruelheide H, de Luca E, Ebeling A, Griffin J, Guo Q, Hautier Y, Hector A, Jentsch A, Kreyling J, Lanta V, Manning P, Meyer ST, Mori AS, Naeem S, Niklaus PA, Polley HW, Reich PB, Roscher C, Seabloom EW, Smith MD, Thakur MP, Tilman D, Tracy BF, van der Putten WH, van Ruijven J, Weigelt A, Weisser WW, Wilsey B, **Eisenhauer N** (2015) *Biodiversity increases the resistance of ecosystem productivity to climate extremes.* ***Nature*** 526: 574-577. https://doi.org/10.1038/nature15374.

111 Ramirez KS, Döring M, **Eisenhauer N**, Gardi C, Ladau J, Leff JW, Letendu G, Lindo Z, Rillig MC, Russel D, Scheu S, St. John MG, de Vries FT, Wubet T, van der Putten WH, Wall DH (2015) *Toward a global platform for linking soil biodiversity data.* ***Frontiers in Ecology and Evolution*** 3: 91. https://doi.org/10.3389/fevo.2015.00091.

110 Wagner D, **Eisenhauer N**, Cesarz S (2015) *Plant species richness does not attenuate responses of soil microbial and nematode communities to a flood event*. ***Soil Biology and Biochemistry*** 89: 135-149. https://doi.org/10.1016/j.soilbio.2015.07.001.

109 Thakur MP, Milcu A, Manning P, Niklaus PA, Roscher C, Power S, Reich PB, Scheu S, Tilman D, Ai F, Guo H, Ji R, Pierce S, Guerrero Ramirez N, Richter AN, Steinauer K, Strecker T, Vogel A, **Eisenhauer N** (2015) *Plant diversity drives soil microbial biomass carbon in grasslands irrespective of global environmental change factors*. ***Global Change Biology*** 21: 4076-4085. https://doi.org/10.1111/gcb.13011.

108 Powell JR and **Eisenhauer N** (2015) Editorial: *Pedobiologia in 2015: The International Year of Soils*. ***Pedobiologia*** 58: 57-58. https://doi.org/10.1016/j.pedobi.2015.04.001.

107 Shao Y, Bao W, Chen D, **Eisenhauer N**, Zhang W, Pang X, Xu G, Fu S (2015) *Using structural equation modeling to test established theory and develop novel hypotheses for the structuring forces in soil food webs*. ***Pedobiologia*** 58: 137-145. https://doi.org/10.1016/j.pedobi.2015.06.001.

106 Thakur MP, Herrmann M, Steinauer K, Rennoch S, Cesarz S, **Eisenhauer N** (2015) *Cascading effects of belowground predators on plant communities are density-dependent*. ***Ecology and Evolution*** 5: 4300-4314, DOI: 10.1002/ece3.1597. **Editor's Choice**. https://doi.org/10.1002/ece3.1597.

105 Hines J, **Eisenhauer N**, Drake BG (2015) *Inter-annual changes in detritus-based food chains can enhance plant growth response to elevated atmospheric CO_2*. ***Global Change Biology*** 21: 4642-4650. https://doi.org/10.1111/gcb.12965.

104 Strecker T, Barnard RL, Niklaus PA, Scherer-Lorenzen M, Weigelt A, Scheu S, **Eisenhauer N** (2015) *Effects of plant diversity, functional group composition, and fertilization on soil microbial properties in experimental grassland*. ***Plos One*** 10(5): e0125678. https://doi.org/10.1371/journal.pone.0125678.

103 Eisenhauer N, Bowker MA, Grace JB, Powell JR (2015) *From patterns to causal understanding: Structural equation modeling (SEM) in soil ecology*. ***Pedobiologia*** 58: 65-72. https://doi.org/10.1016/j.pedobi.2015.03.002b.

102 Kirchberger J, **Eisenhauer N**, Weisser WW, Türke M (2015*) Experimental evaluation of herbivory on live plant seedlings by the earthworm* Lumbricus terrestris *L. in the presence and absence of soil surface litter*. ***Plos One*** 10(4): e0123465. https://doi.org/10.1371/journal.pone.0123465.

101 Thakur MP and **Eisenhauer N** (2015) *Plant community composition determines the strength of top-down control in a soil food web motif.* ***Scientific Reports*** 5: 9134. https://doi.org/10.1038/srep09134.

100 Xi X, **Eisenhauer N**, Sun S (2015) *Parasitoid wasps indirectly suppress seed production by stimulating consumption rates of their seed-feeding hosts.* ***Journal of Animal Ecology*** 84: 1103-1111. https://doi.org/10.1111/1365-2656.12361.

099 Xi X, Mu J, Peng Y, **Eisenhauer N**, Sun S (2015) *Capitulum density-dependent effects generate peak seed yield at an intermediate density of a Tibetan lotus.* ***Journal of Plant Ecology*** 9(1): 100-106. https://doi.org/10.1093/jpe/rtv025.

098 Mueller KE, Hobbie SE, Chorover J, Reich PB, **Eisenhauer N**, Castellano MJ, Chadwick OA, Dobies T, Hale CM, Jagodziński AM, Kałucka I, Kieliszewska-Rokicka B, Modrzyński J, Rożen A, Skorupski M, Sobczyk L, Stasińska M, Trocha LK, Weiner J, Wierzbicka A, Oleksyn J (2015) *Effects of litter traits, soil biota, and soil chemistry on soil carbon stocks at a common garden with 14 tree species.* ***Biogeochemistry*** 123: 313-327. https://doi.org/10.1007/s10533-015-0083-6.

097 Lefcheck JS, Byrnes JEK, Isbell F, Gamfeldt F, Griffin JN, **Eisenhauer N**, Hensel MJS, Hector A, Cardinale BJ, Duffy JE (2015) *Biodiversity enhances ecosystem multifunctionality across trophic levels and habitats.* ***Nature Communications*** 6: 6936. https://doi.org/10.1038/ncomms7936.

096 Latz E, **Eisenhauer N**, Scheu S, Jousset A (2015) *Plant identity drives the expression of biocontrol factors in a rhizosphere bacterium across a plant diversity gradient.* ***Functional Ecology*** 29: 1225-1234. https://doi.org/10.1111/1365-2435.12417.

095 Lange M, **Eisenhauer N**, Sierra CA, Bessler H, Engels C, Griffiths RI, Mellado-Vázquez PG, Malik A, Roy J, Scheu S, Steinbeiss S, Thomson BC, Trumbore SE, Gleixner G (2015) *Plant diversity drives soil carbon storage by increased soil microbial activity.* ***Nature Communications*** 6: 6707. https://doi.org/10.1038/ncomms7707.

094 Schwarz B, Dietrich C, Cesarz L, Scherer-Lorenzen M, Auge H, Schulz E, **Eisenhauer N** (2015) *Non-significant tree diversity but significant identity effects on earthworm communities in three tree diversity experiments.* ***European Journal of Soil Biology*** 67: 17-26. https://doi.org/10.1016/j.ejsobi.2015.01.001.

093 Cesarz S, Reich PB, Scheu S, Ruess L, Schaefer M, **Eisenhauer N** (2015) *Nematode functional guilds, not trophic groups, reflect shifts in soil food webs and processes in response to interacting global change factors.* ***Pedobiologia*** 58: 23-32. https://doi.org/10.1016/j.pedobi.2015.01.001.

092 Fischer C, Tischer J, Roscher C, **Eisenhauer N**, Ravenek J, Gleixner G, Attinger S, Jensen B, de Kroon H, Mommer L, Scheu S, Hildebrandt A (2015) *Plant species diversity affects infiltration capacity in an experimental grassland through changes in soil properties*. ***Plant and Soil*** 397: 1-16. https://doi.org/10.1007/s11104-014-2373-5.

091 Wright AJ, Ebeling A, de Kroon H, Roscher C, Weigelt A, Buchmann N, Buchmann T, Fischer C, Hacker N, Hildebrandt A, Leimer S, Mommer L, Oelmann Y, Scheu S, Steinauer K, Strecker T, Weisser WW, Wilcke W, **Eisenhauer N** (2015) *Flooding disturbances increase resource availability and productivity, but reduce stability in diverse plant communities.* ***Nature Communications*** 6: 6092. https://doi.org/10.1038/ncomms7092.

090 Schwarzmüller F, **Eisenhauer N**, Brose U (2015) *'Trophic whales' as biotic buffers: weak interactions stabilize ecosystems against nutrient enrichment.* ***Journal of Animal Ecology*** 84: 680-691. https://doi.org/10.1111/1365-2656.12324.

089 Roth AM, Whitfeld TJS, Lodge AG, **Eisenhauer N**, Frelich LE, Reich PB (2015) *Invasive earthworms interact with abiotic conditions to influence the invasion of*

*common buckthorn (*Rhamnus cathartica*). **Oecologia*** 178(1): 219-30. DOI: 10.1007/s00442-014-3175-4. https://doi.org/10.1007/s00442-014-3175-4.

088 Steinauer K, Tilman D, Wragg PD, Cesarz S, Cowles JM, Pritsch K, Reich PB, Weisser WW, **Eisenhauer N** (2015) *Plant diversity effects on soil microbial functions and enzymes are stronger than, but do not buffer, warming effects in a grassland experiment.* ***Ecology*** 96: 99–112. https://doi.org/10.1890/14-0088.1.

087 Nitschke N, Wiesner K, Hilke I, **Eisenhauer N**, Oelmann Y, Weisser WW (2015) *Increase of fast nutrient cycling in grassland microcosms through insect herbivory on plant functional group composition and species diversity.* ***Oikos*** 124: 161-173. https://doi.org/10.1111/oik.01476.

086 De Araújo ASF, **Eisenhauer N**, Nunes LAPL, Leite LFC, Cesarz S (2015) *Soil surface-active fauna in degraded and restored lands of Northeast Brazil*. ***Land Degradation & Development*** 26: 1-8. https://doi.org/10.1002/ldr.2247.

2014 [19 papers]

085 Schulze E-D, Bouriaud O, Wäldchen J, **Eisenhauer N**, Walentowski H, Seele C, Heinze E, Pruschitzki U, Dănilă G, Marin G, Hessenmöller D, Bouriaud L, Teodosiu M (2014) *Ungulate browsing causes species loss in deciduous forests independent of community dynamics and silvicultural management in Central and Southeastern Europe.* ***Annals of Forest Research*** 57: 267-288. DOI:10.15287/afr.2014.273.

084 Grabmaier A, Heigl F, **Eisenhauer N**, van der Heijden M, Zaller JG (2014) *Stable isotope labelling of earthworms can help deciphering belowground–aboveground interactions involving earthworms, mycorrhizal fungi, plants and aphids.* ***Pedobiologia*** 57: 197-203. https://doi.org/10.1016/j.pedobi.2014.10.002.

083 Eisenhauer N, Stefanski A, Fisichelli NA, Rice K, Rich R, Reich PB (2014) *Warming shifts 'worming': effects of experimental warming on invasive earthworms in northern North America*. ***Scientific Reports*** 4: 6890. https://doi.org/10.1038/srep06890.

082 Cortez CT, Nunes LAPL , Rodrigues LB, **Eisenhauer N**, Araújo ASF (2014) *Soil microbial properties in Eucalyptus grandis plantations of different ages*. ***Journal***

of Plant Nutrition and Soil Science 14: 734-742. http://dx.doi.org/10.4067/S0718-95162014005000059.

081 Araújo ASF, Borges CD, Tsai SM, Cesarz S, **Eisenhauer N** (2014) *Soil bacterial diversity in degraded and restored lands of Northeast Brazil*. ***Antonie van Leeuwenhoek*** 106: 891-899. https://doi.org/10.1007/s10482-014-0258-5.

080 Ebeling A, Meyer ST, Abbas M, **Eisenhauer N**, Hillebrand H, Lange M, Scherber C, Vogel A, Weigelt A, Weisser WW (2014) *Plant diversity impacts decomposition and herbivory via changes in aboveground arthropods*. ***Plos One*** 9: e106529. https://doi.org/10.1371/journal.pone.0106529.

079 Thakur MP, Berg MP, **Eisenhauer N**, van Langevelde F (2014) *Disturbance–diversity relationships for soil fauna explained by faunal community biomass in a salt marsh*. ***Soil Biology and Biochemistry*** 78: 30-37. https://doi.org/10.1016/j.soilbio.2014.06.021.

078 Eisenhauer N, Wirsch D, Cesarz S, Craven D, Dietrich P, Friese J, Helm J, Hines J, Schellenberg M, Scherreiks P, Schwarz B, Uhe C, Wagner K, Steinauer K (2014) *Organic textile dye improves the visual assessment of the bait lamina test.* ***Applied Soil Ecology*** 82: 78-81. https://doi.org/10.1016/j.apsoil.2014.05.008.

077 Lange M, Habekost M, **Eisenhauer N**, Roscher C, Bessler H, Engels C, Oelmann Y, Scheu S, Wilcke W, Schulze E-D, Gleixner G (2014) *Biotic and abiotic properties mediating plant diversity effects on soil microbial communities in experimental grassland.* ***Plos One*** 9: e96182. https://doi.org/10.1371/journal.pone.0096182.

076 Fischer C, Roscher C, Jensen B, **Eisenhauer N**, Baade J, Attinger S, Scheu S, Weisser WW, Schumacher J, Hildebrandt A (2014) *How do earthworms, soil texture and plant composition affect infiltration along an experimental plant diversity gradient in grassland?* ***Plos One*** 9: e98987. https://doi.org/10.1371/journal.pone.0098987.

075 Wright AJ, Bernhardt-Römermann M, Craven D, Ebeling A, Engel J, Hines J, **Eisenhauer N** (2014) *Local-scale changes in plant diversity: reassessments and implications for biodiversity–ecosystem function experiments*. ***Proceedings of Peerage of Science*** 1. DOI: 10.14726/procpos.2014.e6.

074 Thakur MP, Reich PB, Fisichelli NA, Stefanski A, Cesarz S, Dobies T, Rich R, Hobbie S, **Eisenhauer N** (2014) *Nematode community shifts in response to*

experimental warming and canopy conditions are associated with plant community changes in the temperate-boreal forest ecotone. ***Oecologia*** 175: 713-723. https://doi.org/10.1007/s00442-014-2927-5.

073 Ebeling A, Pompe S, Baade J, **Eisenhauer N**, Hillebrand H, Proulx R, Roscher C, Schmid B, Wirth C, Weisser WW (2014) *A trait-based experimental approach to understand the mechanisms underlying biodiversity–ecosystem functioning relationships*. ***Basic and Applied Ecology*** 15: 229-240. https://doi.org/10.1016/j.baae.2014.02.003.

072 Steinauer K, Zytynska S, Weisser WW, **Eisenhauer N** (2014) *Changes in plant community structure and soil biota along soil nitrate gradients in two deciduous forests*. ***Pedobiologia*** 57: 139-145. https://doi.org/10.1016/j.pedobi.2014.01.007.

071 Whitfeld TJS, Roth AM, Lodge AG, **Eisenhauer N**, Frelich LE, Reich PB (2014) *Resident plant diversity and introduced earthworms have contrasting effects on the success of invasive plants*. ***Biological Invasions*** 16: 2181-2193. https://doi.org/10.1007/s10530-014-0657-6.

070 Powell JR, Craven D, **Eisenhauer N** (2014) *Recent trends and future strategies in soil ecological research – integrative approaches at Pedobiologia*. ***Pedobiologia*** 57: 1-3. https://doi.org/10.1016/j.pedobi.2014.01.001.

069 Thakur MP, Reich PB, Eddy WC, Stefanski A, Rich R, Hobbie S, **Eisenhauer N** (2014) *Some plants like it warmer: increased growth of three selected invasive plant species in soils with history of experimental warming*. ***Pedobiologia*** 57: 57-60. https://doi.org/10.1016/j.pedobi.2013.12.002.

068 Jousset A, Becker J, Chatterjee S, Karlovsky P, Scheu S, **Eisenhauer N** (2014) *Biodiversity and species identity drive antifungal activity of bacterial communities*. ***Ecology*** 95: 1184-1190. https://doi.org/10.1890/13-1215.1.

067 Schlaghamerský J, **Eisenhauer N**, Frelich LE (2014) *Earthworm invasion alters enchytraeid community composition and individual biomass in Northern Hardwood Forests of North America*. ***Applied Soil Ecology*** 83: 159-169. https://doi.org/10.1016/j.apsoil.2013.09.005.

2013 [13 papers]

066 Jousset A, **Eisenhauer N**, Materne E, Scheu S (2013) *Evolutionary history predicts the stability of cooperation in microbial communities*. ***Nature Communications*** 4: 2573. https://doi.org/10.1038/ncomms3573.

065 De Araújo ASF, Cesarz S, Leite LFC, Daniel CB, Tsai SM, **Eisenhauer N** (2013) *Soil microbial properties and temporal stability in degraded and restored lands of Northeast Brazil*. ***Soil Biology and Biochemistry*** 66: 175-181. https://doi.org/10.1016/j.soilbio.2013.07.013.

064 Vogel A, Fester T, **Eisenhauer N**, Scherer-Lorenzen M, Schmid B, Weisser WW, Weigelt A (2013) *Separating drought effects from roof artifacts on ecosystem processes in a grassland drought experiment*. ***Plos One*** 8, e70997. https://doi.org/10.1371/journal.pone.0070997.

063 Pérès G, Cluzeau D, Menasseri S, Soussana JF, Bessler H, Engels H, Habekost M, Gleixner G, Weigelt A, Weisser WW, Scheu S, **Eisenhauer N** (2013) *Mechanisms linking plant community properties to soil aggregate stability in an experimental grassland plant diversity gradient*. ***Plant and Soil*** 373: 285-299. https://doi.org/10.1007/s11104-013-1791-0.

062 Vogel A, **Eisenhauer N**, Weigelt A, Scherer-Lorenzen M (2013) *Plant diversity does not buffer drought effects on early-stage mass loss rate and microbial processes*. ***Global Change Biology*** 19: 2795-2803. https://doi.org/10.1111/gcb.12225.

061 Eisenhauer N, Dobies T, Cesarz S, Hobbie SE, Meyer RJ, Worm K, Reich PB (2013) *Plant diversity effects on soil food webs are stronger than those of elevated CO_2 and N deposition in a long-term grassland experiment.* ***Proceedings of the National Academy of Sciences USA*** 110: 6889-6894. https://doi.org/10.1073/pnas.1217382110.

060 Milcu A, Allan E, Roscher C, Jenkins T, Meyer S, Flynn D, Bessler H, Buscot F, Engels C, Gubsch M, König S, Lipowsky A, Loranger J, Renker C, Scherber C, Schmid B, Thébault E, Wubet T, Weisser WW, Scheu S, **Eisenhauer N** (2013) *Functionally and phylogenetically diverse plant communities key to soil biota*. ***Ecology*** 94: 1878-1885. https://doi.org/10.1890/12-1936.1.

059 Guenay Y, Ebeling A, Steinauer K, Weisser WW, **Eisenhauer N** (2013) *Transgressive overyielding of soil microbial biomass in a grassland plant diversity gradient.* ***Soil Biology and Biochemistry*** 60: 122-124. https://doi.org/10.1016/j.soilbio.2013.01.015.

058 Allan E, Weisser WW, Fischer M, Schulze E-D, Weigelt A, Roscher C, Baade J, Barnard RL, Beßler H, Buchmann N, Ebeling A, **Eisenhauer N**, Engels C, Fergus AJF, Gleixner G, Gubsch M, Halle S, Klein AM, Kertscher I, Kuu A, Lange M, Le Roux X, Meyer S, Migunova VD, Milcu A, Niklaus PA, Oelmann Y, Pašalić E, Petermann JS, Poly F, Rottstock T, Sabais ACW, Scherber C, Scherer-Lorenzen M, Scheu S, Steinbeiss S, Schwichtenberg G, Temperton V, Tscharntke T, Voigt W, Wilcke W, Wirth C, Schmid B (2013) *A comparison of the strength of biodiversity effects across multiple functions.* ***Oecologia*** 173: 223-237. https://doi.org/10.1007/s00442-012-2589-0.

057 Griffith B, Türke M, Weisser WW, **Eisenhauer N** (2013) *Herbivore behavior in the anecic earthworm species* Lumbricus terrestris *L.*? ***European Journal of Soil Biology*** 55: 62-65. https://doi.org/10.1016/j.ejsobi.2012.12.002.

056 Türke M, Blattmann T, Knop E, Kindermann A, Prestele J, Marquez L, **Eisenhauer N**, Fischer C (2013) Weeds *and endangered herbs have unforeseen dispersal helpers in the agri-environment: gastropods and earthworms*. ***Renewable Agriculture and Food Systems*** 28: 380-383. https://doi.org/10.1017/S1742170512000415.

055 Fisichelli NA, Frelich LE, Reich PB, **Eisenhauer N** (2013) *Linking direct and indirect pathways mediating earthworms, deer, and understory composition in Great Lakes*. ***Biological Invasions*** 15: 1057-1066. https://doi.org/10.1007/s10530-012-0350-6.

054 Eisenhauer N, Schulz W, Scheu S and Jousset A (2013) *Niche dimensionality links biodiversity and invasibility of microbial communities*. ***Functional Ecology*** 27: 282-288. https://doi.org/10.1111/j.1365-2435.2012.02060.x. **Highlighted by Functional Ecology Spotlight (Clark 2013, Functional Ecology 27, 5-6).**

2012 [13 papers]

053 Eisenhauer N, Reich PB, Scheu S (2012) *Increasing plant diversity effects on productivity with time due to delayed soil biota effects on plants.* ***Basic and Applied Ecology*** 13: 571-578. https://doi.org/10.1016/j.baae.2012.09.002.

052 Frelich LE, Peterson RO, Dovčiak M, Reich PB, Vucetich JA and **Eisenhauer N** (2012) *Trophic cascades, invasive species, and body-size hierarchies interactively modulate climate change responses of ecotonal temperate-boreal*

forests. ***Philosophical Transactions of the Royal Society B*** 367: 2955-2961. https://doi.org/10.1098/rstb.2012.0235.

051 Sabais ACW, **Eisenhauer N**, König S, Renker C, Buscot F and Scheu S (2012) *Soil organisms shape the competition between grassland plant species*. ***Oecologia*** 170: 1021-1032. https://doi.org/10.1007/s00442-012-2375-z.

050 Eisenhauer N, Reich PB and Isbell F (2012) *Decomposer diversity and identity influence plant diversity effects on ecosystem functioning*. ***Ecology*** 93: 2227-2240. https://doi.org/10.1890/11-2266.1.

049 Eisenhauer N, Scheu S and Jousset A (2012) *Bacterial diversity stabilizes community productivity*. ***PLoS ONE*** 7: e.34517. https://doi.org/10.1371/journal.pone.0034517.

048 Reich PB, Tilman D, Isbell F, Mueller K, Hobbie SE, Flynn DFB and **Eisenhauer N** (2012) *Impacts of biodiversity loss escalate through time as redundancy fades*. ***Science*** 336: 589-592. DOI: 10.1126/science.1217909. **Recommended by F1000*.***

047 Becker J, **Eisenhauer N**, Scheu S and Jousset A (2012) *Increasing antagonistic interactions cause bacterial communities to collapse at high diversity*. ***Ecology Letters*** 15: 468-474. https://doi.org/10.1111/j.1461-0248.2012.01759.x.

046 Rosenkranz S, Wilcke W, **Eisenhauer N** and Oelmann Y (2012) *Net ammonification as influenced by plant diversity in experimental grasslands*. ***Soil Biology and Biochemistry*** 48: 78-87. https://doi.org/10.1016/j.soilbio.2012.01.008.

045 Latz E, **Eisenhauer N**, Rall BC, Allan E, Roscher C, Scheu S and Jousset A (2012) *Plant diversity improves protection against soil-borne pathogens by fostering antagonistic bacterial communities*. ***Journal of Ecology*** 100: 597-604. https://doi.org/10.1111/j.1365-2745.2011.01940.x.**Highlighted in The Scientist*.***

044 Eisenhauer N and Reich PB (2012) *Above- and belowground inputs both fuel soil food webs*. ***Soil Biology and Biochemistry*** 45: 156-160. https://doi.org/10.1016/j.soilbio.2011.10.019.

043 Eisenhauer N (2012) *Aboveground-belowground interactions as a source of complementarity effects in biodiversity experiments*. ***Plant and Soil*** 351: 1-22. https://doi.org/10.1007/s11104-011-1027-0.

042 Eisenhauer N, Cesarz S, Koller R, Worm K and Reich PB (2012) *Global change below ground: impacts of elevated CO_2, nitrogen and summer drought on soil*

food webs and biodiversity. ***Global Change Biology*** 18: 435-447. https://doi.org/10.1111/j.1365-2486.2011.02555.x.

041 Eisenhauer N, Fisichelli NA, Frelich LE and Reich PB (2012) *Interactive effects of global warming and 'global worming' on the initial establishment of native and exotic herbaceous plant species*. ***Oikos*** 121: 1121-1133. https://doi.org/10.1111/j.1600-0706.2011.19807.x.

2011 [13 papers]

040 Eisenhauer N (2011) Aboveground–Belowground Linkages: Biotic Interactions, Ecosystem Processes and Global Change, Bardgett RD and Wardle DA. Oxford University Press, Oxford (2010). *Book review*. ***Basic and Applied Ecology*** 12: 478-479.

039 Eisenhauer N, Migunova VD, Ackermann M, Ruess L and Scheu S (2011) *Changes in plant species richness induce functional shifts in soil nematode communities in experimental grassland*. ***PLoS ONE*** 6: e24087. https://doi.org/10.1371/journal.pone.0024087.

038 Eisenhauer N, Schlaghamerský J, Reich PB and Frelich LE (2011) *The wave towards a new steady state: effects of earthworm invasion on soil microbial functions*. ***Biological Invasions*** 13: 2191-2196. https://doi.org/10.1007/s10530-011-0053-4.

037 Butenschoen O, Scheu S and **Eisenhauer N** (2011) *Interactive effects of warming, soil humidity and plant diversity on litter decomposition and microbial functioning*. ***Soil Biology and Biochemistry*** 43: 1902-1907. https://doi.org/10.1016/j.soilbio.2011.05.011.

036 Eisenhauer N, Sabais ACW and Scheu S (2011) *Collembola species composition and diversity effects on ecosystem functioning vary with plant functional group*. ***Soil Biology and Biochemistry*** 43: 1697-1704. https://doi.org/10.1016/j.soilbio.2011.04.015.

035 Forey E, Barot S, Decaëns T, Langlois E, Laossi K-L, Margerie P, Scheu S and **Eisenhauer N** (2011) *Importance of earthworm–seed interactions for the structure and composition of plant communities: a review*. ***Acta Oecologica*** 37: 594-603. https://doi.org/10.1016/j.actao.2011.03.001.

034 Jousset A, Schmid B, Scheu S and **Eisenhauer N** (2011) *Genotypic richness and dissimilarity opposingly affect ecosystem functioning*. ***Ecology Letters*** 14: 537-545. https://doi.org/10.1111/j.1461-0248.2011.01613.x.

033 Sabais ACW, Scheu S and **Eisenhauer N** (2011) *Plant species richness drives the density and diversity of Collembola in temperate grassland*. ***Acta Oecologica*** 37: 195-202. https://doi.org/10.1016/j.actao.2011.02.002.

032 Jousset A, Schulz W, Scheu S and **Eisenhauer N** (2011) *Intraspecific genotypic richness and relatedness predict the invasibility of microbial communities*. ***ISME Journal*** 5: 1108-1114. https://doi.org/10.1038/ismej.2011.9. **Research highlight in Nature Reviews Microbiology 9: 312-313; Highlighted in The Scientist.**

031 Eisenhauer N, Milcu A, Allan E, Nitschke N, Scherber C, Temperton V, Weigelt A, Weisser WW and Scheu S (2011) *Impact of above- and below-ground invertebrates on temporal and spatial stability of grassland of different diversity*. ***Journal of Ecology*** 99: 572-582. https://doi.org/10.1111/j.1365-2745.2010.01783.x.

030 Eisenhauer N, Milcu A, Sabais ACW, Bessler H, Brenner J, Engels C, Klarner B, Maraun M, Partsch S, Roscher C, Schonert F, Temperton V, Thomisch K, Weigelt A, Weisser WW and Scheu S (2011) *Plant diversity surpasses plant functional groups and plant productivity as driver of soil biota in the long term*. ***PLoS ONE*** 6: e16055. https://doi.org/10.1371/journal.pone.0016055.

029 Eisenhauer N, Yee K, Johnson EA, Maraun M, Parkinson D, Straube D and Scheu S (2011) *Positive relationship between herbaceous layer diversity and the performance of soil biota in a temperate forest*. ***Soil Biology and Biochemistry*** 43: 462-465. https://doi.org/10.1016/j.soilbio.2010.10.018.

028 Eisenhauer N and Schädler M (2011) *Inconsistent impacts of decomposer diversity on the stability of aboveground and belowground ecosystem functions.* ***Oecologia*** 165: 403-415. https://doi.org/10.1007/s00442-010-1784-0.

2010 [12 papers]

027 Proulx R, Wirth C, Voigt W, Weigelt A, Roscher C, Attinger S, Baade J, Barnard RL, Buchmann N, Buscot F, **Eisenhauer N**, Fischer M, Gleixner G, Halle S, Hildebrandt A, Kowalski E, Kuu A, Lange M, Milcu A, Niklaus PA, Oelmann Y,

Rosenkranz S, Sabais ACW, Scherber C, Scherer-Lorenzen M, Scheu S, Schulze E-D, Schumacher J, Schwichtenberg G, Soussana J-F, Temperton V, Weisser WW, Wilcke W and Schmid B (2010) *Diversity promotes temporal stability across levels of ecosystem organization in experimental grasslands*. ***PLoS ONE*** 5: e13382. https://doi.org/10.1371/journal.pone.0013382.

026 Scherber C, **Eisenhauer N**, Weisser WW, Schmid B, Voigt W, Schulze E-D, Roscher C, Weigelt A, Allan E, Beßler H, Bonkowski M, Buchmann N, Buscot F, Clement LW, Ebeling A, Engels C, Fischer M, Halle S, Kertscher I, Klein A-M, Koller R, König S, Kowalski E, Kummer V, Kuu A, Lange M, Lauterbach D, Middelhoff C, Migunova VD, Milcu A, Müller R, Partsch S, Petermann JS, Renker C, Rottstock T, Sabais ACW, Scheu S, Schumacher J, Temperton VM and Tscharnke T (2010) *Bottom-up effects of plant diversity on biotic interactions in a biodiversity experiment.* ***Nature*** 468: 553-556. https://doi.org/10.5167/uzh-39737. **Recommended by F1000*.***

025 Milcu A, Thebault E, Scheu S and **Eisenhauer N** (2010) *Plant diversity enhances the reliability of belowground processes*. ***Soil Biology and Biochemistry*** 42: 2102-2110. https://doi.org/10.1016/j.soilbio.2010.08.005.

024 Eisenhauer N, Ackermann M, Gass S, Klier M, Migunova VD, Nitschke N, Ruess L, Sabais A, Weisser WW and Scheu S (2010) *Nematicide impacts on nematodes and feedbacks on plant productivity in a plant diversity gradient*. ***Acta Oecologica*** 36: 477-483. https://doi.org/10.1016/j.actao.2010.06.004.

023 Asshoff R, Scheu S and **Eisenhauer N** (2010) *Different earthworm ecological groups interactively impact plant seedling establishment*. ***European Journal of Soil Biology*** 46: 330-334. https://doi.org/10.1016/j.ejsobi.2010.06.005.

022 Eisenhauer N (2010) *The action of an animal ecosystem engineer: Identification of the main mechanisms of earthworm impacts on soil microarthropods*. ***Pedobiologia*** 53: 343-352. https://doi.org/10.1016/j.pedobi.2010.04.003.

021 Eisenhauer N, Sabais A, Schonert F and Scheu S (2010) *Soil arthropods beneficially rather than detrimentally impact plant performance in experimental grassland systems of different diversity*. ***Soil Biology and Biochemistry*** 42: 1418-1424. https://doi.org/10.1016/j.soilbio.2010.05.001.

020 Eisenhauer N, Butenschoen O, Radsick S and Scheu S (2010) *Earthworms as seedling predators: Importance of seeds and seedlings for earthworm nutrition*.

Soil Biology and Biochemistry 42: 1245-1252. https://doi.org/10.1016/j.soilbio.2010.04.012. **Highlighted in BBC News, BBC Magazine, and Spektrum der Wissenschaft**.

019 Scherber C, Mwangi P, Schmitz M, Scherer-Lorenzen M, Bessler H, Engels C, **Eisenhauer N**, Migunova V, Scheu S, Weisser WW, Schulze E-D and Schmid B (2010) *Biodiversity and belowground interactions mediate community invasion resistance against a tall herb invader*. ***Journal of Plant Ecology*** 3: 99-108. https://doi.org/10.1093/jpe/rtq003.

018 Eisenhauer N, Bessler H, Engels C, Gleixner G, Habekost M, Milcu A, Partsch S, Sabais ACW, Scherber C, Steinbeiss S, Weigelt A, Weisser WW and Scheu S (2010) *Plant diversity effects on soil microorganisms support the singular hypothesis*. **Ecology** 91: 485-496. https://doi.org/10.1890/08-2338.1.

017 Eisenhauer N, Hörsch V, Moeser J and Scheu S (2010) *Synergistic effects of microbial and animal decomposers on plant and herbivore performance*. ***Basic and Applied Ecology*** 11: 23-34. https://doi.org/10.1016/j.baae.2009.11.001.

016 Fründ H-C, Butt K, Capowiez Y, **Eisenhauer N**, Emmerling C, Ernst G, Potthoff M, Schädler M and Schrader S (2010) *Using earthworms as model organisms in the laboratory: Recommendations for experimental implementations*. ***Pedobiologia*** 53: 119-125. https://doi.org/10.1016/j.pedobi.2009.07.002.

2009 [8 papers]

015 Eisenhauer N, Milcu A, Sabais ACW, Bessler H, Weigelt A, Engels C and Scheu S (2009) *Plant community impacts on the structure of earthworm communities depend on season and change with time*. ***Soil Biology and Biochemistry*** 41: 2430-2443. https://doi.org/10.1016/j.soilbio.2009.09.001.

014 Eisenhauer N, Milcu A, Sabais ACW and Scheu S (2009) *Earthworms enhance plant regrowth in a grassland plant diversity gradient*. ***European Journal of Soil Biology*** 45: 455-458. https://doi.org/10.1016/j.ejsobi.2009.06.001.

013 Eisenhauer N, Straube S, Johnson EA, Parkinson D and Scheu S (2009) *Exotic ecosystem engineers change the emergence of plants from the seed bank of a deciduous forest*. ***Ecosystems*** 12: 1008-1016. https://doi.org/10.1007/s10021-009-9275-z.

012 Eisenhauer N, Milcu A, Nitschke N, Sabais ACW, Scherber C and Scheu S (2009) *Earthworm and belowground competition effects on plant productivity in a plant diversity gradient*. ***Oecologia*** 161: 291-301. https://doi.org/10.1007/s00442-009-1374-1.

011 Straube D, Johnson EA, Parkinson D, Scheu S and **Eisenhauer N** (2009) *Nonlinearity of effects of invasive ecosystem engineers on abiotic soil properties and soil biota*. ***Oikos*** 118: 885-896. https://doi.org/10.1111/j.1600-0706.2009.17405.x.

010 Eisenhauer N, Klier M, Partsch S, Sabais ACW, Scherber C, Weisser W and Scheu S (2009) *No interactive effects of pesticides and plant diversity on soil microbial biomass and respiration*. ***Applied Soil Ecology*** 42: 31-36. https://doi.org/10.1016/j.apsoil.2009.01.005.

009 Eisenhauer N, König S, Sabais ACW, Renker C, Buscot F and Scheu S (2009) *Impacts of earthworms and arbuscular mycorrhizal fungi (*Glomus intraradices*) on plant performance are not interrelated*. ***Soil Biology and Biochemistry*** 41: 561-567. https://doi.org/10.1016/j.soilbio.2008.12.017.

008 Eisenhauer N, Schuy M, Butenschoen O and Scheu S (2009) *Direct and indirect effects of endogeic earthworms on plant seeds*. ***Pedobiologia*** 52: 151-162. https://doi.org/10.1016/j.pedobi.2008.07.002.

2008 [6 papers]

007 Eisenhauer N, Milcu A, Sabais ACW and Scheu S (2008) *Animal ecosystem engineers modulate the diversity-invasibility relationship*. ***PLoS ONE*** 3: e3489. https://doi.org/10.1371/journal.pone.0003489.

006 Eisenhauer N and Scheu S (2008) *Earthworms as drivers of the competition between grasses and legumes*. ***Soil Biology and Biochemistry*** 40: 2650-2659. https://doi.org/10.1016/j.soilbio.2008.07.010. **Recommended by F1000.**

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

004 Eisenhauer N and Scheu S (2008) *Invasibility of experimental grassland communities: The role of earthworms, plant functional group identity, and seed size*. ***Oikos*** 117: 1026-1036. https://doi.org/10.1111/j.0030-1299.2008.16812.x.

003 Eisenhauer N, Straube D and Scheu S (2008) *Efficiency of two widespread non-destructive extraction methods under dry soil conditions for different ecological earthworm groups*. ***European Journal of Soil Biology*** 44: 141-145. https://doi.org/10.1016/j.ejsobi.2007.10.002.

002 Eisenhauer N, Marhan S and Scheu S (2008) *Assessment of anecic behavior in selected earthworm species: Effects on wheat seed burial, seedling establishment, wheat growth and litter incorporation*. ***Applied Soil Ecology*** 38: 79-82. https://doi.org/10.1016/j.apsoil.2007.07.002.

2007 [1 paper]

001 Eisenhauer N, Partsch S, Parkinson D and Scheu S (2007) *Invasion of a deciduous forest by earthworms: Changes in soil chemistry, microflora, microarthropods and vegetation*. ***Soil Biology and Biochemistry*** 39: 1099-1110. https://doi.org/10.1016/j.soilbio.2006.12.019.

Books, book chapters, and other publications [45]

(X045) Nationales Monitoringzentrum zur Biodiversität (NMZB) (Hrsg.) (2026). Konzept für ein bundesweites Bodenbiodiversitätsmonitoring. Grundlagen und bundesweite Ersterfassung. Leipzig. Bundesamt für Naturschutz. DOI: https://doi.org/10.5281/zenodo.20152935.

(X044) Eisenhauer N (2026) *Die unterschätzten Ingenieure des Bodens*. ***Forschung - Das Magazin der Deutschen Forschungsgemeinschaft*** 2/2026: 16-21; https://www.dfg.de/resource/blob/404188/forschung-2026-02.pdf.

(X043) Farfan M, Guerra C, …, **Eisenhauer N**, …, & Zaytsev A (2025) *Outlook on the knowledge gaps to improve nature conservation of soil biodiversity*. ***Soils for Europe*** 1: e149005; doi: 10.3897/soils4europe.e149005.

(X042) Pierick K, Mitesser O, …, **Eisenhauer N**, …, & Müller J (2024) *Die Vielfalt der Vielfalt.* ***Forschungsband des Nationalparks Hunsrück-Hochwald*** 2 (03): 40-53; https://www.nlphh.de/forschungsband-02/.

(X041) Wirth C, Bruelheide H, Farwig N, Settele J, Marx JM, Ellerbrok J, Schmidt A, Spatz T, Sporbert M, Bieling C, **Eisenhauer N**, Eskildsen K, Feld C, Freyhof J, Fürst C, Grunewald K, Grüner S, Guerra C, Haase D, Haase P, Hauck J, Hering D, Hillebrand H, Hodapp D, Jacob D, Kaiser J, Keil P, Klein A-M, Lakner S, Lettenmaier L, Mascarenhas A, Mergner U, Müller J, Mupepele A, Nguyen H, Paetow H, Pahl-Wostl C, Paul C, Poßer C, Quaas M, Ristok R, Scheiffarth G, Schmedtje U, Schreiner V, von Sivers L, Sommer P, Tebbe CC, Thompson A, Wellmann T, & Xylander W (2024) ***Faktencheck Artenvielfalt - Assessment zum Erhalt der biologischen Vielfalt Deutschlands***. 1256 pages; Oekom Verlag; https://doi.org/10.14512/9783987263361.

(X040) Eisenhauer N (2024) *Warum das Bodenleben für den Naturschutz so wichtig ist: Zusammenhänge ober- und unterirdischer Biodiversität – Einblicke aus 20 Jahren Forschung im Jena Experiment.* ***Natur & Landschaft*** 99: 436-444; DOI: 10.19217/NuL2024-09-02.

(X039) Ballasus H, Beylich A, Bluhm C, Buscot F, Cordsen E, **Eisenhauer N**, Fröhlich J, Glante F, Grüneberg E, Hommel B, Höper H, Jacob F, Lachmann C, Nabel M, Pieper S, Puhlmann H, Römbke J, Roß-Nickoll M, Russell DJ, Scheu S, Tebbe CC, Toschki A, Walter R, & Weiß L (2024) *Wege zu einem bundesweit harmonisierten Monitoring: Verbesserung der Erfassung der Bodenbiodiversität und ihrer Funktionen.* ***Natur & Landschaft*** 99: 452-458; DOI: 10.19217/NuL2024-09-04.

(X038) Farfan M, Guerra C, Hedlund K, Ingimarsdóttir M, Barrios E, Cox N, Dahlberg A, Delgado-Baquerizo M, **Eisenhauer N**, Lundesjö M, Orgiazzi A, Parnell J, Potapov A, Ramirez K, Raschmanová N, Russell D, Wall D, & Zaytsev A (2024) *Preliminary assessment of the knowledge gaps to improve nature conservation of soil biodiversity*. ***Soils for Europe*** 1: e118853; doi: 10.3897/soils4europe.e118853.

(X037) Fox A, Schloter M, **Eisenhauer N**, & Brennan F (2024) *Microbial marvels.* ***TResearch*** 19: 24-25.

(X036) Thonicke K, Rahner E, Arneth A, Bonn A, Borchard N, Chaudhary A, Darbi M, Dutta T, Eberle U, **Eisenhauer N**, Farwig N, Flocco CG, Freitag J, Grobe P, Grosch R, Grossart HP, Grosse A, Grützmacher K, Hagemann N, Hansjürgens B, Hartman Scholz A, Hassenrück C, Häuser C, Hickler T, Hölker F, Jacob U, Jähnig S, Jürgens K, Kramer-Schadt S, Kretsch C, Krug C, Lindner JP, Loft L,

Mann C, Matzdorf B, Mehring M, Meier R, Meusemann K, Müller D, Nieberg M, Overmann J, Peters RS, Pörtner L, Pradhan P, Prochnow A, Rduch V, Reyer C, Roos C, Scherber C, Scheunemann N, Schroer S, Schuck A, Sioen GB, Sommer S, Sommerwerk N, Tanneberger F, Tockner K, van der Voort H, Veenstra T, Verburg P, Voss M, Warner B, Wende W, Wesche K (2024) *10 Must Knows from Biodiversity Science 2024.* ***Zenodo***; DOI: 10.5281/zenodo.10837769.

(X035) Bonn A, **Eisenhauer N**, & Pereira H (2023) *Welcome Note 2023.* ***Book of Abstracts, 52nd Annual Meeting of the Ecological Society of Germany, Austria and Switzerland*** 5-6.

(X034) Bonn A, **Eisenhauer N**, & Pereira H (2023) 52. Jahrestagung der GfÖ 2023 in Leipzig. ***Nachrichten der GfÖ***, Juni 2023, 4.

(X033) Maestre FT, Edlridge DJ, Bagousse-Pinguet Y, Berdugo M, Delgado-Baquerizo M, Huber-Sannwald E, Linstädter A, Yahdjian L, **Eisenhauer N**, Zaady E, Singh BK, Pueyo Y, Saiz H, & Gross N (2023) *Grazing pressure, rather than management practice, is key to interpret our results: A response to Manzano et al.* ***Science eLetter***, (Mar 28, 2023), https://www.science.org/doi/10.1126/science.abq4062#elettersSection.

(X032) Beylich A, Buscot F, **Eisenhauer N**, Hommel B, Höper H, Glante F, Grüneberg E, Nabel M, Puhlmann H, Roß-Nickoll M, Römbke J, Russell D, Scheu S, Tebbe C, Toschki A, Weiß L, Walter R, Weißbecker C (2022) *Eckpunktepapier zur Weiterentwicklung des bundesweiten Bodenbiodiversitätsmonitorings durch das Fachgremium „Monitoring der Bodenbiodiversität und -funktionen“.* ***Bundesamt für Naturschutz***, https://www.monitoringzentrum.de/sites/default/files/2023-01/Eckpunktepapier_FG_Bodenmonitoring_GFG_barreriefrei_3_0.pdf.

(X031) Bonn A, **Eisenhauer N**, & Pereira H (2022) Jahrestagung der GfÖ 2023 in Leipzig. ***Nachrichten der GfÖ***, Dezember 2022, 8.

(X030) Müller J, Scherer-Lorenzen M, Ammer C, **Eisenhauer N**, Seidel D, Schuldt B, Biedermann P, Schmitt T, Kuenzer C, Wegmann M, Cesarz S, Peters M, Feldhaar H, Steffan-Dewenter I, Claßen A, Bässler C, von Oheimb G, Fichtner A, Thorn S, Weisser W (2021) *BETA-FOR: Enhancing the structural diversity between patches for improving multidiversity and multifunctionality in production forests. Proposal for the first phase (2022-2026) of the DFG Research Unit FOR 5375/1.* Fabrikschleichach (DOI: 10.25972/OPUS-29084)

(X029) Eisenhauer N (2021) *Die dunkle Seite der Biodiversität – Wechselwirkungen zwischen dem Menschen und der biologischen Vielfalt im Boden.* ***Nova Acta Leopoldina*** 427: 24; https://www.leopoldina.org/fileadmin/redaktion/Veranstaltungen/Jahresversammlung/2021_Kurzfassungsheft_JV_DE_web.pdf.

(X028) Pörtner HO, Scholes RJ, Agard J, Archer E, Arneth A, Bai X, Barnes D, Burrows M, Chan L, Cheung WL, Diamond S, Donatti C, Duarte C, **Eisenhauer N**, Foden W, Gasalla MA, Handa C, Hickler T, Hoegh-Guldberg O, Ichii K, Jacob U, Insarov G, Kiessling W, Leadley P, Leemans R, Levin L, Lim M, Maharaj S, Managi S, Marquet PA, McElwee P, Midgley G, Oberdorff T, Obura D, Osman E, Pandit R, Pascual U, Pires APF, Popp A, Reyes-García V, Sankaran M, Settele J, Shin YJ, Sintayehu DW, Smith P, Steiner N, Strassburg B, Sukumar R, Trisos C, Val AL, Wu J, Aldrian E, Parmesan C, Pichs-Madruga R, Roberts DC, Rogers AD, Díaz S, Fischer M, Hashimoto S, Lavorel S, Wu N, Ngo HT (2021) *IPBES-IPCC co-sponsored workshop report synopsis on biodiversity and climate change*. ***Zenodo***, DOI:10.5281/zenodo.4782538.

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

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

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

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

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

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

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

(X020) Sünnemann M, Siebert J, **Eisenhauer N** (2020) *Double whammy for life in soil? The effects of drought and fertilizer use.* ***Frontiers for Young Minds*** 8: article 547630, doi: 10.3389/frym.2020.547630.

(X019) Gottschall F, Cameron EK, Martins IS, Siebert J, **Eisenhauer N** (2020) *Can we save the beast by conserving the beauty?* ***Frontiers for Young Minds*** 8: 547740. doi: 10.3389/frym.2020.547740.

(X018) Meyer S and **Eisenhauer N** (2020) *Artenverlust schmälert Ökosystemleistungen – Ökologische Experimente zeigen die Bedeutung von Artenvielfalt für Ökosystemleistungen*. ***Zoll+*** 36: 64-67.

(X017) Eisenhauer N and Eisenhauer E (2020) *The "intestines of the soil": the taxonomic and functional diversity of earthworms – a review for young ecologists.* ***EcoEvoRxiv***, doi:10.32942/osf.io/tfm5y.

(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 distiction***), Darmstadt University of Technology, Germany.

Grants

2026 PI in the Research Unit Enhancing the structural diversity – BETA-FOR (FOR 5375), Subproject „*SP1 Syntheses and statistical service*", funded by the German Research Foundation, Ei 862/41-1, Project #: 459717468 (457,256 €)

2025 Travel funds for networking with colleagues in China (Changchun, Xiamen, Beijing) by the Alexander von Humboldt Foundation (~1,500 €)

2024 Co-PI of the sDiv working group „*Towards a synthesis in soil fauna macroecology* (sMacroS)" at the German Centre for Integrative Biodiversity Research (iDiv); Workshop Organizer, with Anton Potapov (~56,600 €)

2024 PI of the project „*Seeds for saplings: collaborative research in MyDiv*" funded by the Seed Funds Initiative of iDiv (with Christian Wirth & Alexandra Weigelt; ~13,600 €)

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) *Economics of Connected Natural Commons: Atmosphere and Biodiversity (ECO-N)*, in the Interdisciplinary Collaborative Project *Soils* (~333,450 €; with Bartosz Bartkowski; 2024-2030)

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862/25-2 (498,048 €; with Anne Ebeling, Gerd Gleixner, Christiane Roscher & Alexandra Weigelt)

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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 €)

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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 TreeDì *Tree Diversity Interactions: The role of tree-tree interactions in local neighbourhoods in Chinese subtropical forests* (with Dr. Simone Cesarz; German Research Foundation; 260,045 €; 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 pertubations*, 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 interactionsdrive 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_2 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

2026 Marcel Ciobanu (Institute of Biological Research, Cluj-Napoca, Romania; 3 weeks)

2026 Sandra Leticia Silva Dos Santos (Federal University of São Carlos, São Paulo, Brazil; 6 months): *Effects of Paint-Derived Microplastics on the Functionality and Diversity of Soil Microbial Communities*

2025 Zhiwei Zhong (Key Laboratory of Vegetation Ecology, Ministry of Education School of Biological Sciences/Institute of Grassland Science Northeast Normal University, Changchun, China; 3 months)

2025 Xiaojuan Liu (University of Chinese Academy of Sciences, Beijing, China; 2 months)

2025 Marcel Ciobanu (Institute of Biological Research, Cluj-Napoca, Romania; 3 weeks)

2025	Kui Wang (UCAS, China; 3,5 months)
2025	Kening Zhang (UCAS, China; 3,5 months)
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 Kuťáková (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 Piauí, 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 Brazalian riparian ecosystems* (7 months). Funded by the Brazilian Sandwich Program.

Supervised postdocs and senior scientists **(total number: 39)**

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 António Guerra (2018-2024), Dr. Jes Hines (2013-2025), Dr. Pubin Hong (2025-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. Muneer Malla (2025-ongoing), Dr. Zhiqin Pei (2025-ongoing), Dr. Helen Phillips (2016-2020), Dr. Anton Potapov (associated Emmy Noether Group Leader; 2023-2024), Dr. Rine Christopher Reuben (2021-2023), Dr. Soroor Rahmanian (2023-ongoing), Dr. Christian Ristok (2021-ongoing), Dr. Anja Schmidt (2018-2020), Dr. Marie Sünnemann (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. Cong Wang (2025-ongoing), Dr. Wenting Wang (2024-ongoing), Dr. Alexandra Wright (2016), Dr. Guiyao Zhou (2021-2023)

Supervised theses



Supervisor / co-supervisor of 38 PhD theses

2026 – Marcela Cosenza: *The economics multifunctionality of forest soils* (Leipzig University)

2025 – Nolwenn Le Guyader: *The intricate roles of microclimate and aboveground diversity on forest soil microbial activity* (University of Montpellier; Co-supervisor with Rémy Beugnon)

2025 – Camilo Andres Quiroga Gonzalez: *Determination and characterization of key oak-associated microorganisms and their role in plant acclimation and adaptation processes* (UFZ, Leipzig University; Co-supervisor with Kezia Goldmann)

2025 – Pia Loeffke: *Tree and mycorrhiza diversity effects on the magnitude and stability of soil functions* (Leipzig University)

2024 – Valentin Specht: *Networks and energy fluxes* (University of Göttingen; Co-supervisor with Stefan Scheu)

2024 – Anna Zueva: *Viral hotspots and fluxes across above- and belowground food webs* (Leipzig; Co-supervisor with Antonis Chatzinotas & Anton Potapov)

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 – Itir Geydirici: *Effects of drought and plant biodiversity on the rhizosphere microbiome* (Helmholtz Munich / TU Munich; Co-supervisor with Stefanie Schulz & Michael Schloter)

2024 – Zarah Janda: *Plant diversity effects on soil multistability* (Leipzig University)

2024 – Olivier Nouwen: *Mycorrhiza as key distributors of carbon* (Co-Tutelle with Hasselt University/Leipzig University)

2024 – 2026 Amelie Hauer: *The quantification of resource use by soil invertebrates* (Leipzig University; Co-supervisor with Anton Potapov)

2023 – 2025 Andrei Zuev: *Mycorrhizal fungi as a food source for soil invertebrates in forest ecosystems* (Leipzig University; Co-supervisor with Anton Potapov)

2023 – April Leonar: *The role of tree-nematode interactions in the acclimation and adaptation of trees – soil food webs and ecosystem functioning* (Leipzig University; with Simone Cesarz)

2023 – Lu Wang: *The role of tree-nematode interactions in the acclimation and adaptation of trees – molecular diversity* (Leipzig University; with Stephanie Jurburg)

2023 – Ioannis Constantinou: *Effects of aboveground invertebrate loss on soil biodiversity and ecosystem multifunctionality* (Leipzig University)

2022 – 2026 Lena Philipp: *Interacting effects of global change drivers on fauna and microbiome of agricultural soils and the consequences for related ecosystem processes* (UFZ, Leipzig University; Co-supervisor with Thomas Reitz)

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

2021 – 2024 Romy Zeiss: *Prioritäten für den effektiven Schutz von Bodenbiodiversität und Bodenfunktionalität in Deutschland* (DBU; Leipzig University; with Carlos Guerra)

2021 – 2024 Huimin Yi: *Tree diversity effects on multitrophic energy fluxes* (Leipzig University; with Olga Ferlian)

2021 – 2024 Elisabeth Bönisch: *The role of mycorrhizal fungi in nutrient dynimcs and plant-soil interactions* (Leipzig University)

2021 – Xiaoli Yang: *Effects of climate change and land use on soil nematode communities* (Leipzig University; Co-supervisor with Martin Schädler)

2020 – 2025 Justus Hennecke: *Using the new functional framework for root traits (Root Economics Space) to predict soil-borne fungal communities in grasslands* (Co-supervisor; Leipzig University; Co-supervisor with Alexandra Weigelt)

2020 – 2025 Ana Elizabeth Bonato Asato: *Plant diversity, plant history, and soil history effects on the temporal dynamics of plant and soil activity* (Leipzig University, with Jes Hines & Christian Wirth)

2020 – 2024 Angelos Amyntas: *Multi-trophic energy fluxes in soil food webs along plant diversity-productivity gradients* (FSU Jena, with Co-supervisor with Ulrich Brose & Stefan Scheu)

2020 – 2024 Qun Liu: *Effects of climate change and land use on the structure and function of earthworm communities* (Co-supervisor; GAU Göttingen)

2019 – 2024 Marie Sünnemann: *Auswirkungen von Landnutzungseffekten auf die Funktionsweise von Böden im Klimawandel* (DBU; Leipzig University; ***awarded by iDiv: "iDiv PhD Prize 2025"***)

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 – 2026 Christopher Hutengs: *Soil microbial community assessment with portable mid-infrared and visible to near-infrared spectroscopy* (Leipzig University, Co-supervisor 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; Co-supervisor 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, Co-supervisor 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 104 diploma theses, master theses, bachelor theses, research practicals etc.

2025 – 2026 Joseph Masereka : *How plant diversity and mycorrhizal associations influence tree canopy temperature: a remote sensing approach*

2025 – 2026 Wolf Lauber: *Effects of multiple global change factors on soil microbial community composition*

2025 – 2026 Pia Sophie Bierschenk: *Dead, but not gone: Effects of drought and nutrient enrichment on microbial biomass, activity, and necromass in grasslands*

2025 – 2026 Jan Austen: *Trophic interactions of a ground-hunting spider under the influence of tree diversity and mycorrhizal type*

2025 – 2026 Luise Winkler: *Effects of plant diversity on leaf trait expression under increasing hot-drought*

2025 – 2026 Maarten Kanitz: *Seasonality and long-term trends in marine picoeukaryotes in a Mediterranean time series*

2025 – 2026 Luisa Rübener: *First soil ecological insights into human composting: a pilot study using pigs*

2025 – 2026 Vrinda Dabas: *Big cats in the news: a long-term analysis of human-carnivore conflict in india*

2024 – 2025 Linda Schmidt: *Effects of experimental climate change on crop vitality and yield parameters of winter triticale*

2024 – 2025 Raphael Tremmel: *Effects of drought and nutrient addition on the temporal dynamics of belowground organisms in temperate grassland*

2024 – 2025 Sophie Horbach: *Plant Diversity Effects on Seasonal Soil Multistability*

2024 – 2025 Nina Weide: *Effects of Plant Species Richness on Ecosystem Resistance and Recovery to Drought: Insights from a Microcosm Experiment*

2024 – 2025 Nelma Péclard: *The Ant Picnic: understanding ant foraging in an urban context*

2024 Lia Uhde: *Research and knowledge gaps for nature conservation of soil biodiversity*

2024 Eliah Milan Grooß: *Methods to quantify microclimate modulation in ecological contexts*

2024 Luise Xiaqian Doms-Grimm: *Conservation measures and their impact on soil biodiversity in Germany – a literature review*

2024 Hannah Kopf: *The roles of mycorrhizal types in tree neighborhood effects on herbivory damage*

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 distributionon 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 Sünnemann: *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_2, 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_2 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 Latz: *Correlation between plant diversity and soil suppressiveness*

2009 Johanna Brenner: *Einfluss von Pflanzendiversität auf Abundanzen, Diversität und zeitliche Stabilität der Bodenmakrofauna einer experimentell angelegten Graslandgesellschaft*

2009 Stefan Radsick: *Haben Regenwürmer nährstoffreiche Nahrungsquellen? Der Fraß an Pflanzensamen und Keimlingen*

2008 Matthias Klier: *Nematoden in einem Pflanzendiversitätsgradienten: Einfluss auf Mikroorganismen und Pflanzenwachstum*

2008 Felix Schonert: *Einfluss von Pflanzendiversität auf die Bodenfauna einer experimentell angelegten Graslandgemeinschaft* ***(awarded by the state of Hesse: „Best teachers' thesis in 2008")***

2008 Svenja Gass: *Einfluss von Pflanzendiversität und funktioneller Identität auf Nematodengemeinschaften*

2007 – 2008 Daniela Straube: *Nonlinearity of effects of invasive ecosystem engineers on abiotic soil properties and soil biota*

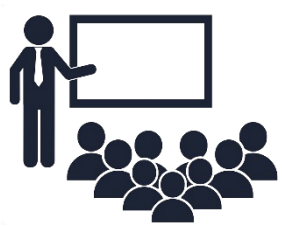
2007 Christiane Schmidt: *Einfluss von funktionellen Pflanzengruppen und ausgesäter Diversität, sowie Insektizidapplikation auf die Myriapodagruppen Chilopoda und Symphyla*

2007 Daniela Straube: *Efficiency of two widespread non-destructive extraction methods under dry soil conditions for different ecological earthworm groups*

2006 – 2008 Volker Hörsch: *Wechselwirkungen zwischen Zersetzern (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 51 conferences, sessions, workshops etc.

2026 ► Organization of the Session *Sustainable Land-use for Climate Smart Systems* at the CBC2026 - Connecting Biodiversity, Climate, and Human Behaviour (with Melanie Maraun), September 2026, Leipzig, Germany.

2026 ► Organization of the Session *Visions for Soil Biodiversity and Health Indicators (ViSH)* at the World Biodiversity Forum (with Anton Potapov), June 2026, Davos, Switzerland.

2026 ► Organization of the Symposium *An economics perspective on soil biodiversity* at the Global Soil Biodiversity Conference, May 2026, Victoria, Canada.

2026 ► Co-organization of the *MyDiv Annual Meeting*, February 2026, Leipzig, Germany (with Olga Ferlian).

2025 ► Organization of the *Jena Retreat of the Jena Experiment*, November 2025, Leipzig, Germany (with Anne Ebeling).

2025 ► Co-organization of the sMacroS Workshop I, Mai 2025, Leipzig, Germany (with Anton Potapov).

2025 ► Organization of the *Jena Retreat of the Jena Experiment*, March 2025, Jena, Germany (with Anne Ebeling).

2025 ► Co-organization of the *MyDiv Annual Meeting*, February 2025, Leipzig, Germany (with Olga Ferlian).

2024 ► Organization of the *Jena Retreat of the Jena Experiment*, November 2024, Leipzig, Germany (with Anne Ebeling).

2024 ► *Bridging scales in soil biodiversity–ecosystem functioning relationships*. Session at the World Biodiversity Forum 2024, June 2024, Davos, Switzerland (with Marie Sünnemann & Anton Potapov).

2024 ► Co-organization of the *sOilFauna Workshop IV*, Mai 2024, Leipzig, Germany (with Jérome 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 (with Olga Ferlian).

2023 ► Co-organization of the *sOilFauna Workshop III*, December 2023, Paris, France (with Jérome 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 Jérome 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 Jérome 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



215 talks presented in seminars, conferences, & workshops

2026 (3 talks)

► *Can sustainable land-use mitigate the consequences of climate change?* at the CBC2026 - Connecting Biodiversity, Climate, and Human Behaviour, September 2026, Leipzig, Germany.

► *The dark side of microclimate.* Microclimate Ecology & Biogeography Conference, May 2025, Montpellier, France (**invited keynote**).

► *The role of soil biodiversity for soil functioning*, Soil Science Colloquium, April 2026, Helmholtz Centre for Environmental Research – UFZ, Halle, Germany.

2025 (14 talks)

► *Spatio-temporal insurance effects of heterogeneous forests*, Review Session of Research Unit FOR 5375/2, Enhancing the structural diversity between patches for improving multidiversity and multifunctionality in production forests (Beta-FOR), December 2025, Universitätswald Sailershausen, Germany.

► *Belowground behavior and phenology (BeHavE)*, Planning Meeting of the CRC Initiative MultiSense, November 2025, Jena, Germany.

► *Scientific Writing*, Jena Retreat of the Jena Experiment, November 2025, Leipzig, Germany.

► *Welcome Note*, Jena Retreat of the Jena Experiment, November 2025, Leipzig, Germany.

► *Synthesizing relationships between soil biodiversity and ecosystem functioning.* Writing Retreat of the Experimental Interaction Ecology Group, November 2025, Lutherstadt Wittenberg, Germany.

► *Overview and synthesis.* BETA-FOR Workshop, Steigerwald, October 2025, UmweltBildungsZentrum Oberschleichach, Oberaurach, Germany.

► *Synthesizing relationships between soil biodiversity and ecosystem functioning.* Experimental Interaction Ecology Seminar, October 2025, Leipzig, Germany.

► *Functions.* iDiv Annual Conference, September 2025, Halle, Germany.

► *Biodiversität und Ökosystemstabilität.* Treffen der Naturschützer:innen, Technisches Rathaus Leipzig, August 2025, Leipzig, Germany.

► *Biodiversity and the functioning of ecosystems.* Annual iDiv Conference, October 2025, Halle, Germany.

► *The dark side of biodiversity.* Seminar at Peking University, May 2025, Peking, China.

► *How to respond to reviewers' comments.* Seminar at Institute of Urban Environment, Chinese Academy of Sciences, May 2025, Xiamen, China.

► *The dark side of biodiversity.* Seminar at Institute of Urban Environment, Chinese Academy of Sciences, May 2025, Xiamen, China.

► *Welcome note.* Jena Experiment Retreat, March 2025, Jena, Germany.

2024 (14 talks)

► *The dark side of biodiversity.* Seminar of the Senckenberg Natural History Museum, December 2024, Görlitz, Germany.

► *The heterogeneity-diversity-performance nexus.* Jena Experiment Retreat, November 2024, Leipzig, Germany.

► *The heterogeneity-diversity-performance nexus.* Annual iDiv Conference, November 2024, Leipzig, Germany.

► *Soil biodiversity monitoring across scales – the biased view of an experimental ecologist.* Meeting of the DFG Senate's Commission on Biodiversity, November 2024, Leipzig, Germany.

► *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.* 10th 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.* Jahresversammung 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.* TreeDì 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.* 5th iDiv Annual Conference, Webinar (***Keynote Talk***).

► *Welcome Note.* Jena Experiment Retreat, October 2020, Jena, Germany.

► *Plans in the MyDiv Project.* 10th 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.* 4th 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.* 1st 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.* 3rd 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; 10th 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.* 1st 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 eff ects 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 Insituts 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*. 1st 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.* 10th 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_2 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_2 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, 26th 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_2, 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*. 5th 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*. 37th 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 8th 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.

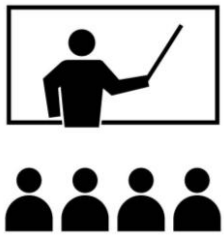
► *Earthworms as drivers of the competition between grasses and legumes.* Workshop of the Research Consortium of the Jena Experiment, Jena, Germany.

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



2026 –	*Soil Ecology*, lecture 2 SWS for Master students, practical 4 SWS (with Dr. Simone Cesarz & Dr. Olga Ferlian; annual, every winter semester)
2025 –	*Doing Ecological Research (DER)*, lecture 2 SWS for Bachelor students, practical 4 SWS (with Dr. Marie Sünnemann; annual, every winter semester)
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 – 2024	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; pratical 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, 1x in 2024)
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	*Within and across-experiment synthesis*, yDiv Summer School, full-day course
2014	*Biodiversity Experiments*, yDiv graduate short course, 2 ECPS
2014	*Writing a scientific paper,* lecture, 1 SWS
2014	*Writing a scientific paper*, practical, 2 SWS
2013	*Ecological Experiments* at the FSU Jena, practical, 2 SWS
2013	*Experiments in Ecology* at the FSU Jena, seminar, 1 SWS
2013	*Experimental Ecology* at the FSU Jena, lecture, 2 SWS
2013	*How to write a paper* at the FSU Jena, practical, 2 SWS
2013	*Einführung in die Bodenökologie* at the FSU Jena, lecture 2 SWS
2013	*Grundpraktikum Ökologie*, 3 SWS
2013	*Vertiefungspraktikum Ökologie* at the FSU Jena
2013	*Kleine Ökologische Exkursionen* at the FSU Jena
2013	*Classic Papers in Ecology Seminar* at the FSU Jena, 2 SWS
2012 – 2014	*Methods in Field Ecology* at the FSU Jena
2012 – 2014	*Institute Seminar* at the FSU Jena, 1 SWS
2012	*Advanced Ecological Seminar* at the FSU Jena, 2 SWS
2012	Lecture/Project *Biodiversität* at the TUM, 4 SWS
2012	*Terrestrial Practical* (basic practical) at the TUM, 4 SWS
2012	*Research Practical in Terrestrial Ecology* at the TUM, 16 SWS
2008, 2012	Guest lectures on *Split-plot analysis*
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

Running*

*no talent, great fun

Personal best

- PB longest distance: 80,43 km (20 June 2026)
- PB marathon: 3:30:18 h (Berlin Marathon, 27 September 2026)
- PB halfmarathon: 1:31:46 h (Goitzsche Halbmarathon, 3 May 2026)

Marathons: 10 in total

- 2024: 4 marathons [Cospudener See, Roth, Dresden, Borna]
- 2025: 4 marathons [Wintermarathon Leipzig, Great Wall Marathon (China), Dreitalsperrenmarathon Eibenstock, Dresden]
- 2026: 2 marathons [Oberelbe-Marathon; Berlin Marathon]

Ultramarathons: 3 in total

- 2025: 60 km [Backyard Ultra Markkleeberg]
- 2026: 49 km [Oberlausitztrail], 80,43 km [Backyard Ultra Markkleeberg]