

DANIELA HOSS

Postdoctoral Researcher in Ecology

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ACADEMIC POSITION

present
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2022

- Postdoctoral Researcher

Synthesis Centre [sDiv](#) at the German Centre for Integrative Biodiversity Research [iDiv](#)

 Leipzig, Germany

Research project: *Understanding community assembly in BEF experiments by comparing seeding, planting, and removal treatments*



RESEARCH INTERESTS

- Biodiversity–ecosystem functioning
- Climate extremes in grassland ecosystems
- Community assembly under disturbance regimes
- Species extinctions
- Plant traits
- Productivity and ecosystem stability
- Evidence synthesis



ACADEMIC TRAINING

Nov 2021
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Mar 2017

- PhD in Ecology

Universidade Federal do Rio Grande do Sul (UFRGS)

 Porto Alegre, Brazil

Thesis: *Stabilizing mechanisms in grassland communities under disturbance*
Supervisor: Prof. Dr. Valério De Patta Pillar

Feb 2016
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Mar 2014

- MSc in Ecology

UFRGS

 Porto Alegre, Brazil



PUBLICATIONS

Peer-reviewed journal articles

- ▶ Ohlert, T., Smith, M.D., ..., **Hoss, D.**, ... et al. [Drought intensity and duration interact to magnify losses in primary productivity](#). 2025. *Science*.
- ▶ Bhadra, S.†, Damasceno, G.†, **Hoss, D.†**, Weyrich, A.† †These authors contributed equally. [Equity, Diversity and Inclusion: Improving gender equity in academia depends on the workplace environment](#). 2025. *eLife*.
- ▶ Smith, M.D., Wilkins, K.D., Holdrege, M.C., Wilfahrt, P., ..., **Hoss, D.**, ... et al. [Extreme drought impacts have been underestimated in grasslands and shrublands globally](#). 2024. *Proceedings of the National Academy of Sciences*.
- ▶ Engel, T., Bruehlheide, H., **Hoss, D.**, Sabatini, F.M., ... & Pillar, V. [Traits of dominant plant species drive normalized difference vegetation index in grasslands globally](#). 2023. *Global Ecology and Biogeography*.
- ▶ Jorge, B.C.S., Fischer, F.M., Debastiani, V.J., **Hoss, D.**, Pillar, V.D., & Winck, B. [Effects of defoliation frequencies on above- and belowground biodiversity and ecosystem processes in subtropical grasslands of southern Brazil](#). 2022. *Pedobiologia*.

- ▶ Guido, A., **Hoss, D.**, & Pillar, V.D. *Competitive effects and responses of the invasive grass *Eragrostis plana* in Rio de la Plata grasslands.* 2019. *Austral Ecology*.
- ▶ Guido, A., **Hoss, D.**, & Pillar, V.D. *Exploring seed to seed effects for understanding invasive species success.* 2017. *Perspectives in Ecology and Conservation*.
- ▶ **Hoss, D.**, Valente, A.L., & Ott, P.H. *Gastrointestinal helminths of the Franciscana *Pontoporia blainvilliei* (Mammalia: Cetartiodactyla) in the northern coast of Rio Grande do Sul state, southern Brazil.* 2017. *Oecologia Australis*.

Manuscripts under review and preprints

- ▶ **Hoss, D.**, Blowes, S.A., Fischer, F.M., Herben, T., Ladouceur, E., Pillar, V.D., Bruehlheide, H., Chase, J.M. Experimental species extinctions alter grassland productivity. *Nature Communications* (second-round of review).
- ▶ Sasaki, T., **Hoss, D.**, Huang, Y., ... & Eisenhauer, N. Biodiversity effects under climate extremes intensify with aridity in grasslands but not forests. Manuscript submitted to *Nature Climate Change* (January 2026).
- ▶ Chen, Y., Allan, E., Bruehlheide, H., Eisenhauer, N., **Hoss, D.**, Huang, Y., Isbell, F., Li, , ... & Waller, D.M. Integrating long-term biodiversity change into biodiversity–ecosystem functioning studies. Manuscript submitted to *TREE* (December 2025).
- ▶ Pillar, V., Guido, A., **Hoss, D.**, Fischer, F. *A conceptual model for linking traits to plant community assembly using experiments and simulations.* *OSF Preprints*.
- ▶ **Hoss, D.**, Richter, A., Vélez-Martin, E., Menezes, L., Overbeck, G., Debastiani, V., & Pillar, V.D. *Stabilizing effects of biodiversity on grassland productivity under climate anomalies depend on the communities' resource use strategy.* *Authorea preprint*.



RESEARCH FUNDING & FELLOWSHIPS (> €260,000; SELECTED)

present 2022	<ul style="list-style-type: none"> ● Postdoctoral Fellowship (Principal Investigator; > €236,000) sDiv / iDiv 📍 Leipzig, Germany
2023	<ul style="list-style-type: none"> ● iDiv Female Career Funder - Grant (Co-PI; €3,900) iDiv Female Scientists Initiative 📍 Leipzig, Germany
2021 2018	<ul style="list-style-type: none"> ● PhD Full Fellowship (> R\$79,000) Coordination for the Improvement of Higher Education Personnel (CAPES) 📍 Porto Alegre, Brazil
2021 2017	<ul style="list-style-type: none"> ● PhD Project Funding (> R\$33,000) Rio Grande do Sul State Research Support Foundation (FAPERGS) Co-PI with Valério De Patta Pillar 📍 Porto Alegre, Brazil
2016 2014	<ul style="list-style-type: none"> ● Master's Full Fellowship (> R\$36,000) CAPES 📍 Porto Alegre, Brazil



RESEARCH PROJECTS & CONSORTIA (SELECTED)

present 2025	<ul style="list-style-type: none"> ● AdaptaClimaVeg: Management and conservation of biodiversity and its benefits in grasslands and savannas in the face of the climate crisis Core group of WG1 – Study of ecosystem stability and dynamics using functional traits 📍 iDiv / Germany - UFRGS / Brazil
present 2025	<ul style="list-style-type: none"> ● Biodiversity effects on the resistance of ecosystem function to climatic anomalies Principal Investigator of sPlot project #60 📍 iDiv / Germany

present | 2025

- The role of microclimate in the relationship between overstory and understory vegetation in global forest communities
Core group of sPlot project #59 / SoilTemp project #9  iDiv / Germany

present | 2024

- Using long-term resurvey data and biodiversity experiments to predict ecosystem consequences of real-world biodiversity change - sRealBioFun
Core group of sDiv Working Group  iDiv / Germany

present | 2023

- Synthesis project on biodiversity experiments on the context-dependency of biodiversity effects across time and space
Co-PI in collaboration with Takehiro Sasaki (Yokohama National University) and Nico Eisenhauer (iDiv)  iDiv / Germany

2016 | 2014

- Invasion of exotic plants in grassland ecosystems: mechanisms, impacts and restoration
Core group  UFRGS / Brazil

TEACHING CONTRIBUTION

Lecturer

2024 | 2021

- Modelling species distribution and biodiversity patterns
Graduate level (MSc)
Extent of involvement: Lectures on biodiversity–ecosystem functioning relationships.  MLU / Halle (Saale), Germany

2018

- Ecology applied to agricultural sciences
Undergraduate level (BSc)
Extent of involvement: Lectures on ecological interactions; coordination of fieldwork activities; evaluation of individual and group assignments.  UFRGS / Porto Alegre, Brazil

CONFERENCES

Talks (invited)

Dec 2025

- Positive effects of community trait composition and redundancy on the resistance of ecosystem function to climatic anomalies
 British Ecological Society Annual Meeting, Scotland
Thematic session: *Insurance in ecosystems: exploring the role of response diversity across scales*

Nov 2025

- Positive effects of community trait composition and redundancy on the resistance of ecosystem function to climatic anomalies
 Swiss Federal Institute for Forest, Snow and Landscape Research (WSL), Zurich, Switzerland

Jun 2022

- A global assessment on the effects of plant functional redundancy on grassland ecosystem stability during climatic anomalies
 64th International Association for Vegetation Science (IAVS)
Special session: *Ecological stability, from vegetation science to ecosystem processes*

Talks (selected)

Sep 2024

- Species loss and emergent metacommunity dynamics  66th IAVS

Sep 2023 ● A synthesis of the impacts of species loss on ecosystem functioning  52nd GfÖ

Sep 2021 ● Grassland stability: how can climate change affect productivity and the role of biodiversity  63rd IAVS

ACADEMIC COMMUNITY LEADERSHIP

2024 ● IAVS Regional Section Latin America & the Caribbean
Steering Committee

2028 |

2023 ● iDiv Female Scientists Initiative (Co-PI)
Peer-mentoring network  iDiv - Leipzig, Germany

present |

Event Organizer

Aug 2025 ● Biodiversity Change
Session Chair  iDiv Conference - Halle (Saale), Germany

Sep 2023 ● Bridging Brilliance: Women Mentoring Women in Science
Mentorship Lunch Meeting  GfÖ - Leipzig, Germany

May 2022 ● Frontiers in Methods in Biodiversity Research
Session Chair  iDiv Conference - Leipzig, Germany

Peer Review for Scientific Journals

Applied Vegetation Science, Journal of Vegetation Science, Ecology Letters, Global Ecology and Biogeography, Journal of Ecology, Nature Communications Earth & Environment, Oikos

HONORS & AWARDS

2024 ● Science Integration Prize – iDiv Female Scientists Initiative (€1,000)
iDiv Flexpool Board  Leipzig, Germany

Awarded for contributions to scientific integration and to the support of female scientists within the iDiv research community.