

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., Bruelheide, 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 blainvillei* \(Mammalia: Cetartiodactyla\) 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., Bruelheide, 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., Bruelheide, 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	● Postdoctoral Fellowship (Principal Investigator; > €236,000) sDiv / iDiv	📍 Leipzig, Germany
2023	● iDiv Female Career Funder - Grant (Co-PI; €3,900) iDiv Female Scientists Initiative	📍 Leipzig, Germany
2021 2018	● PhD Full Fellowship (> R\$79,000) Coordination for the Improvement of Higher Education Personnel (CAPES)	📍 Porto Alegre, Brazil
2021 2017	● 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	● Master's Full Fellowship (> R\$36,000) CAPES	📍 Porto Alegre, Brazil



RESEARCH PROJECTS & CONSORTIA (SELECTED)

present 2025	● AdaptaClimaVeg: Management and conservation of biodiversity and its benefits in grasslands and savannas in the face of the climate crisis <i>Core group of WG1 – Study of ecosystem stability and dynamics using functional traits</i>	📍 iDiv / Germany - UFRGS / Brazil
present 2025	● Biodiversity effects on the resistance of ecosystem function to climatic anomalies <i>Principal Investigator of sPlot project #60</i>	📍 iDiv / Germany

- present
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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
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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
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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
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2014

● **Invasion of exotic plants in grassland ecosystems: mechanisms, impacts and restoration**
Core group

📍 UFRGS / Brazil



TEACHING CONTRIBUTION

Lecturer

- 2024
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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
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2028 ● **IAVS Regional Section Latin America & the Caribbean**
Steering Committee
- 2023
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present ● **iDiv Female Scientists Initiative (Co-PI)**
Peer-mentoring network 📍 iDiv - Leipzig, Germany
- 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.