Narrative CV of the Applicant

Personal details

Surname of the Applicant:		Hartlieb	
First name of the Applicant:		Margarita	
Researcher unique identifier(s) (such as ORCID, Research ID, etc.):		https://orcid.org/0000-0003-2212-5528 https://www.researchgate.net/profile/Margarita-Hartlieb https://scholar.google.com/citations?user=lMUV33QAAAAJ&hl=de	
URL for web site:		www.mhartlieb.com	
PhD awarded (year):	2025	Active Research Years (FTE)*:	0.23

Active Research Years (FTE): State the total number of years you have actively engaged in research since the award of your PhD (or equivalent), calculated in full-time equivalent (FTE).
Periods of career break, maternity, paternity or parental leave, long-term sick leave, national or military service, unemployment, non-research employment, or time spent outside main research activities should be deducted from the total Full-Time Equivalent (FTE) research period.

Professional career in narrative form

From an early age, I knew that I wanted to become a researcher and pursue studying biology. I have always been fascinated by animals and their behaviour, which is why I began my scientific career with a Bachelor's degree in Biology, specialising in Zoology at the University of Vienna. During my studies, I was exposed to a wide range of disciplines within the life sciences and developed a strong interest in insects, as well as a passion for communicating scientific knowledge. Alongside my studies, I therefore worked as a student tutor and as a guide and zoo educator at Schönbrunn Zoo.

After completing my Bachelor's degree, I enrolled in two Master's programmes, Zoology and Behaviour, Neurobiology & Cognition. Initially motivated by the difficulty of choosing between the two fields, I ultimately completed both degrees. This dual training allowed me to gain experience in diverse research approaches, ranging from organismal biology to neuronal activities, and to build a broad scientific foundation through intensive academic training. In particular, the international internships I completed during my studies—ranging from Costa Rica and French Guiana to Turkey and Jordan—had a strong influence on my academic development. I even applied through the Tropical Biology Association in Cambridge for an internship in Tanzania, further strengthening my international research experience. In parallel, I completed the training to become an Austrian National Park Ranger, guiding groups in the Thayatal National Park and fostering enthusiasm for biodiversity, landscapes and conservation.

I then moved to Germany to pursue a PhD in Biology at TU Darmstadt (working 65%), where my research focused on understanding how land-use practices influence ecosystem function and biodiversity, with a particular emphasis on grassland arthropods and how management intensity shapes ecological communities. During my doctoral research, I collaborated across disciplines with social sciences and humanities and institutions from museums to municipal administration and NGOs as part of the BioDivKultur and Biodiversity Exploratories projects. I worked on multiple peer-reviewed publications, including studies on grassland arthropods, management of ecosystems with a special focus on mowing effects, and inter- and transdisciplinary approaches in biodiversity research.

Alongside my academic training, I completed a certification as nature educator and further strengthened my teaching skills through a pedagogical training certificate at TU Darmstadt. After completing my PhD, I continued working as a postdoctoral researcher at TU Darmstadt until November (65%), when I moved back to Vienna. Now, I am currently working part-time at the Environment politics group at the University of Vienna at the interface between IPBES, the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services, and the Austrian Biodiversity Council, supporting the transfer of global biodiversity assessments to the national level.
Science communication has therefore been a consistent thread throughout my career, ranging from managing and maintaining multiple websites and social media platforms (f.e. Instagram), to producing podcasts, developing policy briefs, and contributing to my current role at the science–policy interface.

Research achievements
For a list of publications, please see below. Here, I highlight four selected outputs as key research contributions:

1. In 2021, a publication based on my Master's thesis was published in *Communications Biology*, examining the relationship between yawning duration, brain size, and neuron number across species. I was shared first author and primarily responsible for data collection and curation, which was published open access with the publication. The dataset comprised 1,291 yawns from 101 species (55 mammals and 46 birds), collected through extensive and long-term efforts. The study received considerable media attention and was widely covered by international and Austrian newspapers, with some Austrian outlets featuring the press release images on their front pages. This was followed by multiple interview requests (e.g. APA, *GEO*), with the most recent coverage in 2024 in the children's magazine *GEOlino*. In addition, a short documentary was produced for *nano*, a science programme by 3sat and ORF.
2. For my first first-author publication during my PhD, I developed a mowing intensity index integrating mowing frequency, machinery type, and mowing technique. This study was published in *Grassland Research* and was featured on the journal's issue cover. Shortly afterwards, I was invited as a speaker to a conference organized by the journal in China to present my research. This led to a further invitation to contribute
3. a perspective paper on *"The importance of collaboration, interdisciplinarity, and transdisciplinarity in grassland research"*. I was subsequently invited to join the journal's editorial board as a Young Researcher member, even before completing my PhD.
4. As first author, I also led a publication in *Frontiers for Young Minds* with the title *"The living meadow: How mowing affects insects and spiders"* together with colleagues from ecology, philosophy, linguistics, and political science. This journal focuses on translating scientific topics into accessible language for a young audience, with articles reviewed by children themselves. This work highlights my commitment to interdisciplinary collaboration and science communication.

Overall, over the past years—starting with my doctoral research—my research outputs have contributed to advancing knowledge on biodiversity responses to land-use and management practices, with a particular focus on grasslands and urban ecosystems. My peer-reviewed publications address how management intensity, such as mowing, shapes arthropod communities and ecosystem functioning, providing empirical evidence relevant for conservation and sustainable land-use planning. These were also all promoted on social media, as the project maintains an actively curated Instagram channel with a substantial follower base, where all new publications are regularly disseminated.

Peer recognition

October 2025: "From Science to Practice: Managing Grasslands for Biodiversity " — Invited talk at Institute of Forest Ecology seminar series, BOKU, Vienna
May 2025: xchange prize for outstanding achievements in the field of knowledge transfer and science communication in politics, civil society and culture, TU Darmstadt
Since April 2025: Editorial Board Member at Grassland Research
November 2024: "The Importance of Interdisciplinarity and Collaborations in Grassland Research" — Invited speaker at the International Forum on Grassland Research in Lanzhou, China
October 2024: Cover article of Grassland Research Volume 3 Issue 3
September 2024 & August 2025: Early-Career-Researcher Fund, TU Darmstadt
September 2024: "The future of biodiversity in interdisciplinary research" — Session chair at GfÖ, Freising
June 2024: "BioDivKultur: From science to practice - about insects and meadows" — Invited speaker at TU München
September 2023: "Insektenschonende Mahd von Waldwegen" — Invited workshop leader on forest trail maintenance for employees of the Kreisforstamt, Reutlingen
April 2023: "Lebensraum Wiese – wie wir Insektenvielfalt fördern und erhalten können" — Talk at BioDivKultur-Impuls in cooperation with NABU, Darmstadt
March 2023: "Insektenschonend mähen? Ergebnisse aus dem BioDivKultur-Projekt" — Invited talk at Frühjahrstagung POLLICHIA, Bad Dürkheim
September 2022: "Insektenschonend mähen - aber wie?" — Conference organizer at Mahdworkshop, Darmstadt

Other relevant information and contributions to the research community

My academic career has been based in Austria and Germany and has been complemented by several international research internships. Most recently, my international research activities took me to Ecuador, where I conducted fieldwork in tropical rainforest ecosystems.
Over the past years, my work has been strongly interdisciplinary and transdisciplinary, allowing me to gain substantial intersectoral experience. In particular, I developed a solid understanding of research approaches in the social sciences and humanities. Additionally, collaboration and knowledge exchange with and between non-academic stakeholders has been a central focus of my work. My doctoral project was embedded in this broad inter- and transdisciplinary setting and provided me further with extensive experience in project coordination and management. During the final two years of the project, I assumed the role of project coordinator after the designated coordinator became unavailable. The project was characterised by a strong emphasis on science communication and outreach. Outputs included practical guidelines, podcasts, a policy brief, press interviews, social media communication, and the production of a short artistic film that was screened at several film festivals. Further, we organised workshops and conferences and I was responsible for maintaining and regularly updating the project website. A particularly notable outcome was the development of the *Insect Calculator* website, an applied tool designed for practitioners to assess insect abundance in gardens, urban green spaces, or agricultural grasslands based on management inputs. My doctoral project therefore received the *xchange* prize in 2025 in recognition of its innovative approach to knowledge transfer.
Since November, I have been working at the science–policy interface, contributing to the national implementation of IPBES assessments in collaboration with the Austrian Biodiversity Council, a high-level advisory body comprising experts from diverse scientific disciplines. In this role, I act as scientific coordinator, supporting the Austrian National Focal Point in the preparation and participation in IPBES negotiations. I am also involved in translating global IPBES reports to the national context through publications and public information events organised in cooperation with the Austrian Academy of Sciences. In addition, I coordinate the Biodiversity Barometer of the politics in Austria, which is published annually and entails

substantial engagement with the media. This work has significantly deepened my understanding of how scientific evidence informs policy and decision-making processes.
Furthermore, I have been actively involved for several years in the *Hochschulinitiative für Biodiversität (HIB)*, where I contribute to initiatives that promote biodiversity awareness, networking, and capacity building within the academic community at the university's campuses.
In parallel, I have gained teaching experience at TU Darmstadt and the University of Vienna and have co-supervised Bachelor's, Master's, and teacher-training theses.
Together, these experiences demonstrate my capacity to design, coordinate, and disseminate interdisciplinary, high-quality research, and they provide a strong foundation for the successful implementation of the proposed project.

Publications and Other Research Outputs

Below is a list of my main 8 peer-reviewed articles, my doctoral thesis and a policy brief; all are available open access.

1. **Hartlieb M**, Berger JL, Daum SNK, Freudenberg J, Zenglein F, Janich N, Blüthgen N (2025) The living meadow: How mowing affects insects and spiders. *Frontiers for Young Minds 13:1565644.* https://doi.org/10.3389/frym.2025.1565644
   - **See above number 4 of key research output**
2. **Hartlieb M** (2025) Balancing Biodiversity: Understanding the Influence of Management on Grassland Ecosystems. *Technische Universität Darmstadt.* 10.26083/tuprints-00031414
   - **Doctorate thesis**
3. **Hartlieb M**, Staab M, Berger JL, Achury R, Gossner MM, Seibold S, Weisser WW, Blüthgen N (2025) Losers and winners: Responses of grassland arthropods to land-use components. *Oikos e11404.* https://doi.org/10.1002/oik.11404 Data
   - **Chapter of doctorate thesis**
4. Zenglein F, Berger JL, **Hartlieb M** (2025) Urban biodiversity and green space maintenance: limitations and chances in German cities. *Urban Research & Practice*, 1–23. https://doi.org/10.1080/17535069.2025.2561703
   - **Interdisciplinary paper with political science**; last author: co-development of the study design, formulation of interview questions, conducting of interviews, data analysis, and writing and reviewing of the manuscript, with a particular focus on the biological perspective.
5. **Hartlieb M** (2025) Preserving the art of multivariate thinking: PCA and the wisdom of experience. *Agronomy Journal 117 (5), e70151.* https://doi.org/10.1002/agj2.70151
   - **Written commentary of an editorial**
6. **Hartlieb M** (2025) The importance of collaboration, interdisciplinarity, and transdisciplinarity in grassland research. *Grassland Research*, 4(3), 296–304. https://doi.org/10.1002/glr2.70015
   - **See above number 3 of key research output & chapter of doctorate thesis**
7. Berger JL*, Daum SNK*, **Hartlieb M*** (2024) Simply The Green: Urban Refuges. *Basic and Applied Ecology*, 80, 108-119. https://doi.org/10.1016/j.baae.2024.09.002 *shared first author
   - **Interdisciplinary paper with philosophy on urban green refuges**. This is a key publication for the application, as Study 1 is based on its design.

8. Berger JL, Daum SNK, Freudenberg J, **Hartlieb M**, Martin N, Walther G, & Zenglein F (2024) Grünflächenmanagement – so wird es nachhaltiger. FEdA-Policy Brief. https://doi.org/10.13140/RG.2.2.12629.03049
   - **Policy Brief;** Authors listed in alphabetical order - all have contributed significantly to the creation of this work
9. **Hartlieb M**, Raubitzek S, Berger JL, Staab M, Vogt J, Ayasse M, Ostrowski A, Weisser W, Blüthgen N (2024) Assessing mowing intensity: A new index incorporating frequency, machinery, and technique. *Grassland Research*, *3*(3), 264-274. https://doi.org/10.1002/glr2.12089 ***GitLab***
   - **See above number 2 of key research output & chapter of doctorate thesis**
10. Massen JJM*, **Hartlieb M***, Martin JS*, Leitgeb EB, Hockl J, Kocourek M, Olkowicz S, Zhang Y, Osadnik C, Verkleij JW, Bugnyar T, Němec P, Gallup AC (2021) Brain size and neuron numbers drive differences in yawn duration across mammals and birds. *Communications Biology*, *4*(1), 503. https://doi.org/10.1038/s42003-021-02019-y *shared first author
   - **See above number 1 of key research output & Master thesis**

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