

Dr. Marten Winter

I'm a biodiversity researcher and science manager, with a strong focus on strategic leadership duties. As a scientist I'm interested in biological invasions, macroecology but also applied conservation topics. As a science manager I'm highly interested to bridge the gap between society and science, be it with science communication into the public sphere or with advising industry and economic partners how to transform business into being more sustainable.

Current position: Head of sDiv, Synthesis Centre of iDiv, German Centre for Integrative Biodiversity Research (iDiv) Halle-Jena-Leipzig, Puschstr 4a, 04103 Leipzig. www.idiv.de

Abridged CV:

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https://www.idiv.de/groups_and_people/employees/details/eshow/winter_marten.html

<https://scholar.google.de/citations?user=bMSNuk8AAAAJ>

<https://orcid.org/0000-0002-9593-7300>

https://twitter.com/sMarten_Winter

Professional status: Department head/ Senior scientist (permanent)

Education

2005 Diploma Biology, Martin-Luther University Halle-Wittenberg

2008 PhD in Zoology (phil. nat.), University of Bern, Switzerland/Helmholtz Centre for Environmental Research - UFZ

Academic Positions

Since 12/2012	Head of sDiv - Synthesis Centre of iDiv, German Centre for Integrative Biodiversity Research (iDiv) Halle-Jena-Leipzig
1/2011-02/2013	PostDoc UFZ: IPCC Chapter Scientist with CLA Josef Settele (WG II, CH 04: "Terrestrial and freshwater systems") Project PI "Climate change Monitoring in Saxony" (Saxon State Office for Environment, Agriculture and Geology – LfULG)
10/2010-12/2010	PostDoc UFZ/Coordinator of Wildlife Ecology Section: Effects of habitat fragmentation on Wild Cats, Development of a Learning Tool (funded by BUND - Friends of the Earth Germany/EU)
02/2010-09/2010	PostDoc UFZ: Development of a monitoring concept of climate change effects on biodiversity in the federal state of Saxony (LfULG)
07/2009-01/2010	PostDoc University of Fribourg (CH), Dept. Ecology & Evolution, Sven Bacher; PRATIQUE – Enhancements of Pest Risk Analysis Techniques
02/2009 – 05/2009	PostDoc UFZ: Effects of climate change on the German fauna (BfN)

Research Services

Section Editor: Frontiers in Biogeography

Reviewer: BiodivERSA, Czech & Swiss Science Foundation, Future Earth, Master theses Martin-Luther University Halle-Wittenberg, IPCC, IPBES, Future Earth

for > 30 Journals (selection): Basic and Applied Ecology, Biological Reviews, Conservation Biology, Current Biology, Ecology, Ecology Letters, Global Change Biology, Global Ecology and Biogeography, Journal of Ecology, Journal of Vegetation Science, Natur und Landschaft, Nature Communications, Oikos, Proceedings of the Royal Society B, Science, Science Advances, Trends in Ecology and Evolution

Science Policy relevant authorships: Contributing Author for IPCC Assessment Report 5, Working group II, Chapter 4: "Terrestrial and freshwater systems" 2010-2013

Contributing Author for IPBES: Regional assessment on biodiversity and ecosystem services for Europe and Central Asia, Chapter 3 & 4 [Stepped down from Lead author position in Chapter 5]

Advisory Board member: [FISC](#) (Forest Invasion Synthesis Centre, Czech Univ of Life Sciences; Head of Advisory Board, ongoing), [MISTRA FinBio](#) (Stockholm Resilience Centre, ongoing); [Biota Synthesis](#) (Brasil, ongoing); [AquaSync](#) (Synthesis Centre for Aquatic Studies, Copenhagen, ongoing); [SINBIOSE](#) (Synthesis Centre Brasil, 2024-ongoing); [HEIRS](#) (Synthesis Centre on

Human Evolution, Portugal, 2024-ongoing); [ASCEND](#) (Synthesis Centre, South Africa, 2024-ongoing); [IEB](#) (Instituto de Ecología y Biodiversidad, Chile, 2025-), [BiodivERsA](#) (20020-2022)
Other memberships etc: iDiv PI (until 2024), iDiv full member, Ecological Society of Germany, Austria and Switzerland, GfÖ; GfÖ Special Interest Group "Macroecology" (leadership team); International Biogeography Society (German representative)
Founding & core member: [Joint Synthesis Consortium](#); [GloNAF](#) (Global Naturalized Alien Flora)

Teaching activities & experiences

- Module Leader & teacher in the University Leipzig "International Master of Science in Biodiversity, Ecology and Evolution (BEE)" program since 2020 (Module: Macroecology under Global Change; ~4-6 SWS) – 1 semester with weekly lectures, publication discussion seminar & 3 week project work & project presentation & project report [highly positive evaluated by students]
- Yearly lectures "Biomes of the Earth" University Leipzig, Bachelor degree
- Co-lead & taught 1 week course international iDiv/yDiv PhD summer school 2016 (with sDiv PD) on biodiversity facets
- yDiv 1 day course "How to give good scientific presentations?" [given twice so far]
- Several guest lectures about own & synthesis research (e.g. Bayklif Summer School "Multidisciplinary Research and Synthesis" 2021)
- Open university lecture on Biodiversity & Climate Change relationships at University Leipzig RingVorlesung, at University of Leipzig teacher education courses
- Tutor for animal determination courses at Martin-Luther University while my study time

Supervision & mentoring in the last 5 years

- Co-supervision & mentoring of PhD student [Eduardo Arle](#) (10/2017-11/2022; MLU Halle-Wittenberg, main supervisors Carsten Meyer & Tiffany Knight)
- Mentoring of all sDiv Postdocs (constantly >8 PDs in the lab)
- Close scientific supervision & mentoring of former sDiv PD Matthias Grenie & present sDiv PD Lirong Cai (ongoing), David Tran (ongoing), Paola Barajas (ongoing)
- Supervision of several student helper projects in sDiv
- Mentoring & career advice for numerous postdocs & Phd students beyond sDiv

Grants & Awards in the last 5 years

- **One of the iDiv PIs/co-PI** on iDiv Research Area "Biodiversity Change" (~1,446 Mio€ DFG funding, until 2024)
- One of four PIs, iDiv Strategic Project sMon "Biodiversity trends in Germany" (~600.000, 2020-ongoing)
- Main PI iDiv Flexpool Postdoc "EcoGlassBird - "Economics of avoiding bird collisions with glass structures" (~155.000€ 2025-2027)
- Main Co-PI (main proposal writing) iDiv Flexpool Postdoc PaDRE "Patterns and Drivers of ecological marginality in regional plant Extinctions" (~155.000€; 2024-2025)
- One of two PIs, iDiv Flexpool PhD project "Improving Alien species Distribution knowledge by Integrating Data Across Scales" (137.500 €; 2018-2022)
- 2025 W.S. Cooper Publication Award of the Ecological Society of America (ESA) for Grenie et al. 2025
- **ISI Highly cited Researcher 2018, 2019, 2020, 2021, 2022, 2023, 2024**

Other job related experiences & duties in last 5 years

- **Event orga (selection):** Organisation of International GfÖ Conference 2023 (in person, 1200 participants); Organisation of online iDiv conference 2022 (ca 250 participants), responsibility for >120 international working group meetings @iDiv
- **Committee & Boards:** leading sDiv board since 13yrs; several other governance committees @iDiv (e.g. science-policy; on equal opportunities, strategy, developing senior researchers funding streams etc)
- **HR related: Elected representative of academic staff** (Mittelbau) @Univ Leipzig, 2023-ongoing; **Counsellor** @iDiv (2016-ongoing)
- **Science-Policy:** expert hearings at Saxonian government on alien species; policy advice on Biodiversity for Regional Party representatives in Germany; EU wide stakeholder workshop on alien species indicators (sTwist)
- Organising the sDiv lab (biweekly lab meetings, budget, staff etc)

Outreach activities

- numerous appearances & interviews at Radio, TV, newspapers, websites; [TEDx talk](#); House of Common discussion on Biodiversity & Biodiversity communications (Science Communication Conference 2022 Germany, World Biodiversity Forum Davos 2020); regular talks at Long Night of Sciences; Public talks at schools
 - several presentations & participation science-business events as panel speaker (e.g. Biodiversity in Good Company Dialogforum 2025 Berlin), Audi stakeholder Dialog Biodiversität 2025
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Research interests: Macroecology, Invasion ecology, Conservation biology, Effects of global change on community compositions at taxonomic, functional & phylogenetic levels, Impact of research, Synthesis research, Efficiency in science coordination & management etc.

Ongoing biodiversity-related research projects of the last 5 years (selection):

- Macroecology of Plants lab @iDiv – PD: [Lirong Cai](#), ALUMNI: [Matthias Grenie](#) (e.g. Grenie et al. 2023)
 - “Global disruption of natural plant biogeography” (ongoing with Lirong Cai)
 - “Gaps in global alien plant trait data and how to fill them” (ongoing with Matthias Grenie, in revision in Global Ecology & Biogeography)
 - various subprojects in GloNAF (Global Alien Naturalized Flora www.glonaf.org; I’m one of eight core PIs; e.g. van Kleunen et al. 2019)
 - EcoGlassBird “Economics of avoiding bird collisions with glass structures” (iDiv Flexpool Postdoc project, Main PI, 2025-2027)
 - sMon (www.idiv.de/smon, Co-PI, e.g. Eichenberg et al. 2020)
 - PaDRE “Patterns and DRivers of ecological marginality in regional plant Extinctions” (iDiv Flexpool Postdoc project; main Co-PI; 2024-2025)
 - Leipzig Catalogue of Vascular Plants – New global reference list for all known vascular plants (Co-PI, lead by Martin Freiberg & Christian Wirth, UL, e.g. Freiberg et al. 2020; Schellenberger et al 2023)
 - sTWIST - Theory and Workflows for Alien and Invasive Species Tracking (www.idiv.de/stwist, one of two Co-PIs, e.g. Vicente et al. 2022; McGeoch et al. 2023)
 - yDiv Flexpool PhD Project Eduardo Arlé: Improving Alien species Distribution knowledge by Integrating Data Across Scales (Co-PI, Co-Supervisor of PhD student, e.g. Arle et al. 2021)
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Selected Publication list of the last 5 years (H-index 69 | 28500 citations Google Scholar; see full list @ my [Google Scholar page](#); *senior author, #core author):

Grenié, M., Bruehlheide, H., Dawson, W., Essl, F., van Kleunen, M., Kühn, I., Kreft, H., Pyšek, P., Weigelt, P. & **Winter, M.** * (2025) Gaps in Global Alien Plant Trait Data and How to Fill Them. *Global Ecology and Biogeography*, 34, e70131. **This paper won the 2025 W.S. Cooper Award of the Ecological Society of America (ESA)**

Cai, L., Kreft, H., Denelle, P., Taylor, A., Craven, D., Dawson, W., Essl, F., van Kleunen, M., Pergl, J., Pyšek, P., **Winter, M** [...] & Weigelt, P. (2025) Environmental filtering, not dispersal history, explains global patterns of phylogenetic turnover in seed plants at deep evolutionary timescales. *Nature Ecology & Evolution*, 9, 314-324.

Ortiz, A.M.D., [...] , **Winter, M.** & Yannelli, F.A. (2025) Listening Deeply to Indigenous People: A Collaborative Perspective and Reflection Between a Mapuche Machi and Ecologists. *Ecology and Evolution*, 15, e71914.

- Paudel, R., Fristoe, T.S., Kinlock, N.L., Davis, [...], **Winter, M.** & van Kleunen, M. (2025) Many plants naturalized as aliens abroad have also become more common within their native regions. *Nature Communications*, 16, 8227.
- Cai, L., Kreft, H., Taylor, A., Schrader, J., Dawson, W., Essl, F., van Kleunen, M., Pergl, J., Pyšek, P., **Winter, M.** & Weigelt, P. (2023) Climatic stability and geological history shape global centers of neo- and paleoendemism in seed plants. *Proceedings of the National Academy of Sciences*, 120, e2300981120.
- McGeoch, M.A., Buba, Y., Arlé, E., Belmaker, J., Clarke, D.A., Jetz, W., Li, R., Seebens, H., Essl, F., Groom, Q., García-Berthou, E., Lenzner, B., Meyer, C., Vicente, J.R., Wilson, J.R.U. & **Winter, M.** (2023) Invasion trends: An interpretable measure of change is needed to support policy targets. *Conservation Letters*, 16, e12981.
- Vicente, J.R., Vaz, A.S., Roige, M., **Winter, M.**, Lenzner, B., Clarke, D.A. & McGeoch, M.A. (2022) Existing indicators do not adequately monitor progress toward meeting invasive alien species targets. *Conservation Letters*, 15, e12918.
- Arlé, E., Zizka, A., Keil, P., **Winter, M.**, Essl, F., Knight, T., Weigelt, P., Jiménez-Muñoz, M. & Meyer, C. (2021) bRacatus: A method to estimate the accuracy and biogeographical status of georeferenced biological data. *Methods in Ecology and Evolution*, 12, 1609-1619.
- Craven, D., **Winter, M.**, Hotzel, K., Gaikwad, J., Eisenhauer, N., Hohmuth, M., König-Ries, B. & Wirth, C. (2019) Evolution of interdisciplinarity in biodiversity science. *Ecology and Evolution*, 9, 6744-6755.
- Eichenberg, D., Bowler, D.E., Bonn, A., Bruelheide, H., Grescho, V., Harter, D., Jandt, U., May, R., **Winter, M.** & Jansen, F. (2020) Widespread decline in Central European plant diversity across six decades. *Global Change Biology*, n/a
- Freiberg, M., **Winter, M.**, Gentile, A., Zizka, A., Muellner-Riehl, A.N., Weigelt, A. & Wirth, C. (2020) LCVP, The Leipzig catalogue of vascular plants, a new taxonomic reference list for all known vascular plants. *Scientific Data*, 7, 416.
- Grenié, M., Berti, E., Carvajal-Quintero, J., Dädlow, G.M.L., Sagouis, A. & **Winter, M.** (2022) Harmonizing taxon names in biodiversity data: A review of tools, databases and best practices. *Methods in Ecology and Evolution*, 14, 12-25.
- Keil, P., Pereira, H.M., Cabral, J.S., Chase, J.M., May, F., Martins, I.S. & **Winter, M.** (2018) Spatial scaling of extinction rates: Theory and data reveal nonlinearity and a major upscaling and downscaling challenge. *Global Ecology and Biogeography*, 27, 2-13.
- Schellenberger Costa, D., Boehnisch, G., Freiberg, M., Govaerts, R., Grenié, M., Hassler, M., Kattge, J., Muellner-Riehl, A.N., Rojas Andrés, B.M., **Winter, M.**, Watson, M., Zizka, A. & Wirth, C. (2023) The big four of plant taxonomy – a comparison of global checklists of vascular plant names. *New Phytologist*, 240, 1687-1702.
- Srivastava, D.S., **Winter, M.**, Gross, L.J., Metzger, J.P., Baron, J.S., Mouquet, N., Meagher, T.R., Halpern, B.S. & Pillar, V.D. (2021) Maintaining momentum for collaborative working groups in a post-pandemic world. *Nature Ecology & Evolution*, 5, 1188-1189. (correspondence)
- Tucker, C.M., Aze, T., Cadotte, M.W., Cantalapiedra, J.L., Chisholm, C., Díaz, S., Grenyer, R., Huang, D., Mazel, F., Pearse, W.D., Pennell, M.W., **Winter, M.** & Mooers, A.O. (2019) Assessing the utility of conserving evolutionary history. *Biological Reviews*, 0, 1740-1760.
- van Kleunen, M., Pyšek, P., Dawson, W., Essl, F., Kreft, H., Pergl, J., Weigelt, P., Stein, A., Dullinger, S., König, C., Lenzner, B., Maurel, N., Moser, D., Seebens, H., [...] & **Winter, M.** (2019) The Global Naturalized Alien Flora (GloNAF) database. *Ecology*, 100, e02542.
- Vicente, J.R., Vaz, A.S., Roige, M., **Winter, M.**, Lenzner, B., Clarke, D.A. & McGeoch, M.A. (2022) Existing indicators do not adequately monitor progress toward meeting invasive alien species targets. *Conservation Letters*, 15, e12918.
- McGeoch, M.A., Buba, Y., Arlé, E., Belmaker, J., Clarke, D.A., Jetz, W., Li, R., Seebens, H., Essl, F., Groom, Q., García-Berthou, E., Lenzner, B., Meyer, C., Vicente, J.R., Wilson, J.R.U. & **Winter, M.** (2023) Invasion trends: An interpretable measure of change is needed to support policy targets. *Conservation Letters*, n/a, e12981.