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Research interests

Bayesian hierarchical modelling to understand complex ecological processes across scales, while leveraging diverse data sources. Communication and application of research findings for sustainable adaptive ecosystem management, restoration and conservation.

Education and professional experience

- 2022-current **Scientist**, *Swiss Federal Institute of Aquatic Science & Technology Eawag*, Department Systems Analysis, Integrated Assessment and Modelling, Dübendorf, Switzerland.
- Guest researcher, *Swiss Federal Institutes for Forest, Snow and Landscape Research WSL*, Research Unit Biodiversity and Conservation Biology.
- 2020-2022 **Postdoc**, *Swiss Federal Institutes for Forest, Snow and Landscape Research WSL and Aquatic Science & Technology Eawag*, Birmensdorf and Dübendorf, Switzerland. 'Blue-green infrastructure for blue-green lives: modelling use and colonization credit of an ecological infrastructure to inform evidence-based amphibian conservation.' Research Unit Biodiversity and Conservation Biology; Group leader: Dr. Ariel Bergamini
- 2017 –2020 **Postdoc**, *Swedish University of Agricultural Sciences SLU*, Uppsala, Sweden. 'Biodiversa project GreenFutureForest - Impact of Future Forestry Scenarios on Metapopulation Dynamics of Wood-Decaying Fungi.' Development of hierarchical Bayesian metapopulation models to assess effects of future forest management scenarios on fungi. Program Research and Citizen Science Data; Group leader: Prof. Tord Snäll
- 2017 **Scientific consultant**, *Swedish University of Agricultural Sciences SLU*, Uppsala, Sweden. 'Predicted forest beetle species distributions in Dalarna.' Contract research for green infrastructure planning, funded by the county administration of Dalarna. Programme Conservation science; Group leader: Prof. Tord Snäll
- 2011–2016 **PhD in Natural Resource Management**, *Stockholm Resilience Centre SRC, Stockholm University*, Stockholm, Sweden. 'Function follows Form: Trait-based approaches to climate change effects on wetland vegetation and functioning.' Supervisor: Prof. Jon Norberg, Co-supervisors: Prof. Kristoffer Hylander, Prof. Regina Lindborg

- 2014 Visiting researcher with Prof. Simon Levin, EEB, Princeton University, USA.
Project work and attendance of 3 month course in Theoretical Ecology (Prof. Levin).
- 2010–2011 **Research assistant**, *IfM-GEOMAR, Christian-Albrechts Universität*, Kiel, Germany.
Development of a new method for staining bacterial extracellular polysaccharides.
- 2008–2010 **MSc Biological Oceanography**, *IfM-GEOMAR, Christian-Albrechts Universität*, Kiel, Germany.
'Heat wave triggers shift to an alternative stable state in experimental periphyton metacommunities.'
Supervisors: Dr. Birte Matthiessen & Prof. Ulrich Sommer
- 2005–2008 **BSc Organismal Biology**, *University of Basel*, Basel, Switzerland.
- 2002–2004 **Studies in German, Philosophy, History**, *University of Basel*, Basel, Switzerland.
2001–2002 **Latinum**, *University of Basel*, Basel, Switzerland.

Publications in peer-reviewed journals

- 2022 **Moor H**, Bergamini A, Vorburger C, Holderegger R, Bühler C, Egger S & Schmidt BR. Bending the curve: Simple but massive conservation action leads to landscape-scale recovery of amphibians. *Proceedings of the National Academy of Sciences of the United States of America PNAS*. 119(42): e2123070119. 10.1073/pnas.2123070119
- 2022 **Moor H**, Eggers J, Bradter U, Henckel L, Mazziotta A, Nordén J, Siitonen J & Snäll T. Rebuilding green infrastructure in a boreal production forest. *Journal of Applied Ecology*. 59: 1659-1669. 10.1111/1365-2664.14175
- 2022 Mazziotta A, Lundström J, Forsell N, **Moor H**, Eggers J, Subramanian N, Aquilué N, Ordóñez AM, Brotons L & Snäll T. More future synergies and less trade-offs between forest ecosystem services with natural climate solutions instead of bioeconomy solutions. *Global Change Biology*. 10.1111/gcb.16364
- 2021 Dawson SK, Carmona CP, Gonzalez-Suarez M, Jönsson M, Melero Y, **Moor H**, Simaika J & Duthie B. The traits of 'trait ecologists': an analysis of the use of trait and functional trait terminology. *Ecology and Evolution*, 11(23): 16434-16445. 10.1002/ece3.8321
- 2020 **Moor H**, Nordén J, Siitonen J & Snäll T. Long-term effects of colonisation-extinction dynamics of specialist vs. generalist wood-decaying fungi. *Journal of Ecology*. 109(1): 491-503. 10.1111/1365-2745.13526
- 2017 **Moor H**, Rydin H, Hylander K, Nilsson MB, Lindborg R & Norberg J. Towards a trait-based ecology of wetland vegetation. *Journal of Ecology* 105, 1623-1635. 10.1111/1365-2745.12734
- 2017 **Moor H**. Life history trade-off moderates model predictions of diversity loss from climate change. *PLoS ONE* 12(5): e0177778. 10.1371/journal.pone.0177778

- 2015 **Moor H**, Hylander K & Norberg J. Predicting climate change effects on wetland ecosystem services using species distribution modeling and plant functional traits. *AMBIO* 44(1), 113-126. 10.1007/s13280-014-0593-9
- 2015 Elmhagen B, Destouni G, Angerbjörn A,...**Moor H**,... & Lindborg R. Interacting effects of change in climate, human population, land use, and water use on biodiversity and ecosystem services. *Ecology and Society* 20(1), 23. 10.5751/ES-07145-200123
- 2014 de Boer MK, **Moor H**, Mathiessen B, Hillebrand H & Eriksson BK. Dispersal restricts local biomass but promotes the recovery of metacommunities after temperature stress. *Oikos* 123(6), 762-768. 10.1111/j.1600-0706.2013.00927.x

Publications, other

- 2022 **Moor H**, Gossner MM, Graham C, Hobi ML, Logar I, Narwani A, Reber U, Seehausen O, Holderegger R & Altermatt F. Besserer Biodiversitätsschutz in Blau-Grünen Ökosystemen. Des écosystèmes bleus-verts pour mieux protéger la biodiversité. *Nature + Paysage. Natur + Landschaft: Inside* (1), 25-29.
- 2022 Moretti M, **Moor H** & Obrist MK. Lebensraumvernetzung im Anthropozän: von der Theorie in die Praxis. *Pro Natura Lokal*, 2, 3-6.
- 2022 **Moor H**, Gossner MM, Graham C, Hobi ML, Logar I, Matthews B, Narwani A, Seehausen O, Holderegger R & Altermatt F (2022). Blau-grüne Biodiversität ist ein wichtiger Teil des Waldes. *Wald und Holz*, 103(4), 30-33.
- 2021 **Moor H**, Gossner MM, Graham C, Hobi ML, Holderegger R, Reber U, Altermatt F, Logar I, Matthews B, Narwani A, Seehausen O & Shipley R. Biodiversitätsschutz dank Ökosystem-übergreifendem Denken. Forschungsinitiative Blau-Grüne Biodiversität (BGB). *Aqua & Gas*, 101(12), 44-49.
- 2019 Norberg J & **Moor H**. Amplitude and timescale of metacommunity trait-lag response to climate change. *bioRxiv*. 10.1101/850289
- 2018 **Moor H**, Siitonen J & Snäll T. Predicted forest beetle distributions in Dalarna. *ArtDatabanken Rapporterar* 20, ArtDatabanken SLU, Uppsala.
- 2018 **Moor H**, Nordén J, Siitonen J & Snäll T. Do traits explain colonization-extinction rates of wood-decaying fungi? *Oral presentation & conference paper*.
- 2016 **Moor H**. Function follows Form: Trait-based approaches to climate change effects on wetland vegetation and functioning. Doctoral thesis, Stockholm University, Faculty of Science, Stockholm Resilience Centre.

Scientific peer review

Referee work 2014-2022 for the journals *Functional Ecology*, *Ecosystems*, *Ecological Indicators*, *PLoS ONE*, *Basic and Applied Ecology*, *Wetlands*, *Journal of Vegetation Science*, *Nature Communications*, *Trends in Plant Science*.

Awards

- 2013 Stipend for 3 month stay as visiting researcher with the group of Prof. Simon Levin, at the Department of Ecology and Evolutionary Biology, Princeton University, USA
- 2008 Scholarship for Gifted Students, Dr. Max Hushman Stiftung, Zürich, CH
- 2007 Scholarship, Jubiläumsstiftung KBBL, CH
- 2007 Scholarship for Highly Talented Citizens of Baselland, Handschin Stiftung (CH)

Memberships

The Ecological Society of Germany, Austria and Switzerland **GfÖ**, Nordic Society **Oikos**, Society for Conservation Biology **SCB**, International Society for Bayesian Analysis **ISBA** (section EnviBayes)