



# Dr. Franz-Sebastian Krah

Data Science, Sustainability and Ecology

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🔗 FranzKrah

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📄 drkrah

## Software

- rGUIDANCE
- rUSDA
- rMyCoPortal
- rSymbiota

## Published in

- Nature Communications
- BMC Evolutionary Biology
- Journal of Ecology
- Biodiversity Data Journal
- Journal of Open Source Software

## Languages

Germany 

English 

French 

Bengali 

## Interests



## Currently

11/2019 DFGE  
Research & Development Manager  
Artificial Intelligence



## Education

2015 - 2019 Dr. rer. nat. in Ecology  
Passed '*summa cum laude*'

2013 - 2015 M.Sc. Biology  
Passed with high distinction

2010 - 2013 B.Sc. Forest Science and  
Resource Management  
Passed good

2008 - 2010 Magister Philosophy  
Mid term exam 1.0



## Experience

08/2019 - 11/2019 Postdoc at the Philipps-University Marburg  
Ecology, AG Prof. Dr. Brandl

2015 - 2019 Research assistant  
Department of Conservation and Research

2008 - 2013 Student assistant  
Diverse job at various chairs  
e.g., library, digital root imaging, tutoring

2010 - 2013 Voluntary work in Fachschaft

02-05/2015 Researcher at Clark University  
Massachusetts (USA)

LMU & TUM

TUM

## Skills

Programming in **R**, **Rcpp**, python

Data acquisition  
(e.g., Web scraping, Text mining)

Data preprocessing  
(e.g., Cleaning, Manipulation)

Data analysis  
(e.g., Machine learning, Statistics)

Data presentation  
(e.g., Visualization, Communication)

Version control / Git

Data Science

Project management

Team work

Persistency in problem solving

Scientific writing

Transferable skills

References Dr. Claus Bässler, Prof. Dr. Hanno Schäfer

# Publications

## Lead scientist

**Franz-S. Krah**, Ulf Büntgen, Hanno Schaefer, Carrie Andrew, Lynne Boddy, Jeffrey Diez, Simon Egli, Robert Freckleton, Alan C. Gange, Rune Halvorsen, Einar Heegaard, Antje Heideroth, Christoph Heibl, Jacob Heilmann-Clausen, Klaus Høiland, Ritwika Kar, Håvard Kauserud, Paul M. Kirk, Thomas W. Kuyper, Irmgard Krisai-Greilhuber, Jörg Müller, Jenni Norden, Phillip Papastefanou, Leonie Schmid, Beatrice Senn-Irlet, Claus Bässler. European mushroom assemblages are darker in cold climates. *Nature Communications* 2019, 10(2890)

**Franz-S. Krah**, Sebastian Seibold, Roland Brandl, Petr Baldrian, Jörg Müller, Claus Bässler (2018). Independent effects of host and environment on the diversity of wood-inhabiting fungi. *Journal of Ecology* 2018, 106:1428-1442

**Franz-S. Krah**, Hanno Schäffer, Christoph Heibl, Claus Bässler, John Soghigian, David Hibbett. Evolutionary dynamics of host specialization in wood-decay fungi. *BMC Evolutionary Biology* 2018, 18:119-132

**Franz-S. Krah**, Andrew N. Miller and Scott T. Bates. rMyCoPortal - an R package to interface with the Mycology Collections Portal. *Biodiversity Data Journal* 2019, 7:e31511

**Franz-S. Krah** and Christoph Heibl. rGUIDANCE – alignment confidence score computation in R. *Journal of Open Source Software* 2019, 4(36):1350

## Senior scientist

Boris A. Olou, Nourou S. Yorou, Manuel Striegel, Claus Bässler, **Franz-S. Krah**. Effects of macroclimate and resource on the diversity of tropical wood-inhabiting fungi. *Forest Ecology and Management* 2019, 436:79-87

Leonie Schmid, Claus Bässler, Hanno Schaefer, **Franz-S. Krah**. A test of camera surveys to study fungus-animal interactions. Online publication 5th April 2019 *Mycoscience*

## Co-scientist

Sebastian Seibold, Jörg Müller, Petr Baldrian, Marc W. Cadotte, M. Štursová, Peter H. Biedermann, **Franz-S. Krah**, C. Bässler. Fungi associated with beetles dispersing from dead wood – Let's take the beetle bus! *Fungal Ecology* 2018, 39:100-108

Maria-Barbara Winter, Claus Bässler, Markus Bernhardt-Römermann, **Franz-S. Krah**, Hanno Schäfer, Sebastian Seibold, Jörg Müller. On the structural and species diversity effects of bark beetle disturbance in forests during initial and advanced early-seral stages at different scales. *European Journal of Forest Research* 2017, 136:357-373