

# Philipp Cédric Scherer

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**I am a computational biologist in movement and disease ecology with more than 7 years of hypothesis-driven research experience and strong skills in data wrangling, statistical analysis and data visualization in R.**

For my research I use both theoretical and empirical approaches such as process-based models and statistical analyses to investigate the consequence of movement and global change on pathogens, populations and communities.

Born on September 27<sup>th</sup> 1986 in Berlin, Germany | Married with 1 dependent daughter (5 months parental leave in 2017/18)

## Experience & Education

### Scientific Researcher

Investigating coexistence and evolution of dispersal strategies using spatially explicit mechanistic models

**Project:** DFG Research Training Group "BioMove"

📅 since 04/2019

📍 Leibniz Institute for Zoo & Wildlife Research, Berlin, Germany

### Ph.D. in Ecology

Investigating pathogen-host dynamics using mechanistic movement models and spatiotemporal analyses of long-term outbreak data

**Thesis:** "Infection on the move: individual host movement shapes disease dynamics in structured landscapes."

**Project:** DFG Research Training Group "BioMove"

📅 10/2015 - 03/2019

📍 Leibniz Institute for Zoo & Wildlife Research, Berlin, Germany

### Visiting Research Scholar

Genetic algorithm approaches in eco-epidemiological models

📅 09/2017 - 11/2017

📍 Getz Lab, University of California, Berkeley, USA

### Research Assistant

Investigating effects of root herbivory on plant communities using dynamic population models

**Project:** DFG Priority Program "Infrastructure-Biodiversity-Exploratories"

📅 09/2014 - 10/2015

📍 University of Potsdam, Potsdam, Germany

### M.Sc. in Ecology, Evolution & Nature Conservation

**Main subjects:** Theoretical Ecology, Animal Behaviour

**Grade:** 1.1 (excellent, corresponds to A)

**Thesis:** "Responses of bird functional types to climatic and land use changes in African savannas - an individual-based modelling approach."

📅 10/2011 - 09/2014

📍 University of Potsdam, Potsdam, Germany

### Internship

Catching, sampling and collaring mammals and performing large-scale vegetation surveys

**Project:** "AgroScapeLabs"

📅 03/2011 - 08/2011

📍 Leibniz Centre for Agricultural Landscape Research, Muencheberg, Germany

### B.Sc. in Life Sciences

**Main subjects:** Organismal Biology, Ecology, Evolution

**Grade:** 1.7 (good, corresponds to A-)

**Thesis:** "Analysis of three-dimensional acceleration data for behavioural studies on wild boars (*Sus scrofa* L.) and woolly pigs (*Sus scrofa domestica* L.)."

📅 10/2008 - 09/2011

📍 University of Potsdam, Potsdam, Germany

## Further Education

**Movement ecology:** Several international workshops, summer schools and conferences

**Disease ecology:** Some international workshops and conferences

**Model building:** Workshops and trainings on different modelling approaches (e.g. patch occupancy, matrix, agent-based and metapopulation models, ODEs)

**Scientific skills:** Workshops on scientific communication, scientific writing and data visualization

## Skills

**Languages:** German (*native*), English (*fluent*), Latin (*Latinum*), Ancient Greek (*Graecum*)

**Programming:** R, NetLogo, SQL/SQLite, Python, CSS, html5

**Statistics:** R, SPSS, MS Excel

**Visualisation:** R, ggplot2, Shiny, plotly, CartoDB, Leaflet, RAWgraphs

**GIS:** R, QGIS, GRASS, ArcGIS

**Writing:** Markdown, MS Office, LaTeX

## Teaching

R, tidyverse and ggplot2 | Agent-based Modelling | Data Visualization | Scientific Research and Presentation | Embryology and Histology | Systematic Zoology

## Achievements

👤 Speaker of the international Special Interest Group "Young Modellers in Ecology (YoMos)" (2015-2019)

🏆 Best Poster Award at the Gordon Research Conference on Animal Movement (2017)

📄 Recipient of a 9 month Postdoctoral research stipend funded by the University of Potsdam, Germany

## Conference Organisation

→ 1<sup>st</sup> international BioMove symposium with ~120 participants (September 2018)

→ Four workshops of the GfOe Special Interest Group "Young Modellers in Ecology" with international keynote speakers and 25-30 participants (2015-2019)

→ Thematic topic session on "Ecological Simulation Models" at the Joint Annual Meeting of BES, NecoV and GfOe in Ghent, Belgium (December 2017)