

# Dr. Christine I. B. Wallis

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## *Curriculum Vitae*

### PERSONAL INFORMATION

Citizenship                      Germany  
Languages:                      German (native), English (fluent), Spanish (functional), French (functional)

### EDUCATION

- 2018 **PhD in Geography**, Philipps-Universität Marburg, Marburg, Germany  
Title: Modeling tropical montane biodiversity – the potential of multispectral remote sensing
- 2014 **M.Sc. in Physical Geography of Human-Environment Systems**,  
Humboldt-Universität zu Berlin, Berlin, Germany  
Thesis: Mining urban data: Exploring neighborhood characteristics and health-related patterns in Berlin, Germany
- 2011 **B.Sc. in Geography**, Philipps-Universität Marburg, Marburg, Germany  
Thesis: Retrospective land cover classification of northern South America using AVHRR data – a classification tree approach

### POSITIONS

- Since 2020 **Postdoctoral researcher**, laboratory for ecology (Prof. M. Vellend), University of Sherbrooke, Sherbrooke, Canada  
Project: Spectral diversity as an integrator and predictor of community-level taxonomic and functional plant diversity (Canadian Airborne Biodiversity Observatory, CABO)
- 2020 **Freelancer in Geography**, laboratory for climatology and remote sensing (Prof. J. Bendix,) Philipps-Universität Marburg, Marburg, Germany  
Project: Modeling multi-taxa diversity and functions from spatial predictors
- 2018-2019 **Postdoctoral scholarship**, Supervision: laboratory for climatology and remote sensing (Prof. J. Bendix), Philipps-Universität Marburg, Marburg, Germany  
Funding: MArburg University Research Academy (MARA)  
Developing a proposal for a research project and applying for third-party funding: Spatiotemporal patterns of functional leaf traits under climate change in the tropical Andes
- 2014-2018 **Scientific assistant**, laboratory for climatology and remote sensing (Prof. J. Bendix), Philipps-Universität Marburg, Marburg, Germany  
Project: Remote sensing as a surrogate for biodiversity and functional processes along land-use and elevation gradients

## PUBLICATIONS

### Articles

**Wallis, C.I.B.**, Crofts, A. L., Inamdar, D., Arroyo, P., Kalacska, M., Laliberté, E., Vellend, M.: Remotely sensed Carbon content: the role of tree composition and tree diversity (submitted to *Remote Sensing of Environment*).

Koschorreck, M., Keller, P. S., Dadi, T., **Wallis, C.I.B.**: Mobilisation of sedimentary carbon from the persistent drawdown area of Lake Sevan, Armenia (submitted to *Journal of Limnology*).

**Wallis, C.I.B.**, Tiede, Y.C., Beck, E., Böhning-Gaese, K., Brandl, R., Donoso, D.A., Espinosa, C.I., Fries, A., Homeier, J., Inclan, D., Leuschner, C., Maraun, M., Mikolajewski, K., Neuschulz, E.L., Scheu, S., Schleuning, M., Suárez, J.P., Tinoco, B.A., Farwig, N., Bendix, J., 2021. Biodiversity and ecosystem functions depend on environmental conditions and resources rather than the geodiversity of a tropical biodiversity hotspot. *Scientific Reports* 11, 24530. <https://doi.org/10.1038/s41598-021-03488-1>

**Wallis, C.I.B.**, Brehm, G., Donoso, D.A., Fiedler, K., Homeier, J., Paulsch, D., Süssenbach, D., Tiede, Y., Brandl, R., Farwig, N., Bendix, J., 2017. Remote sensing improves prediction of tropical montane species diversity, but performance differs among taxa. *Ecological Indicators* 83, 538–549. <https://doi.org/10.1016/j.ecolind.2017.01.022>

Tiede, Y., Schlautmann, J., Donoso, D.A., **Wallis, C.I.B.**, Bendix, J., Brandl, R., Farwig, N., 2017. Ants as indicators of environmental change and ecosystem processes. *Ecological Indicators* 83, 527–537. <https://doi.org/10.1016/j.ecolind.2017.01.029>

**Wallis, C.I.B.**, Paulsch, D., Zeilinger, J., Silva, B., Curatola Fernández, G.F., Brandl, R., Farwig, N., Bendix, J., 2016. Contrasting performance of Lidar and optical texture models in predicting avian diversity in a tropical mountain forest. *Remote Sensing of Environment* 174, 223–232. <https://doi.org/10.1016/j.rse.2015.12.019>

### Book chapters

Tiede, Y., **Wallis, C.I.B.**, Bendix, J., Brandl, R., Farwig, N. (2017): Ants and Artificial Caterpillars as Indicators of Environmental Change and Ecosystem Process. In: Beck, E., Knoke, T., Farwig, N., Breuer, L., Siddons, D., Bendix, J. (eds.): *Landscape Restoration, Sustainable Use and Cross-scale Monitoring of Biodiversity and Ecosystem Functions*. NCI Loja, pp. 81-92. doi: <http://dx.doi.org/10.5678/lcrs/pak823-825.cit.1696>

**Wallis, C.I.B.**, Fiedler, K., Brandl, R., Farwig, N., Bendix, J. (2017): Chapter 2.2: A spatially explicit indicator for species diversity derived from remote sensing in the mountain rainforest of southern Ecuador. In: Beck, E., Knoke, T., Farwig, N., Breuer, L., Siddons, D., Bendix, J. (eds.): *Landscape Restoration, Sustainable Use and Cross-scale Monitoring of Biodiversity and Ecosystem Functions*. NCI Loja, pp. 67-80. doi: <http://dx.doi.org/10.5678/lcrs/pak823-825.cit.1696>

Tiede, Y., **Wallis, C.I.B.**, Bendix, J., Brandl, R., Farwig, N. (2016): Benefits of remote sensing data for biodiversity monitoring – Birds, ants and their role as predators. In: F. X. Bogner, J. Bendix, E. Beck (eds.): *Biodiversity Hotspot Tropical Mountain Rainforest*. Naturaleza y Cultura Internacional (Loja, Ecuador), pp. 105-108. doi: <http://dx.doi.org/10.5678/lcrs/pak823-825.cit.1513>