

ABOUT ME

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* 25.09.1979, Hattingen/Germany



OBJECTIVE **Participation in the EUFAR training course RS4forestEBV, Bavarian Forest National Park & DLR, 3-14 July 2017**

EDUCATION / EMPLOYMENT HISTORY

2013-2016	Research Assistant at the Institute of Landscape Ecology (ILÖK), University of Münster (WWU) in the DFG funded project „ QUEEN “: Detection and impact assessment of an invasive <i>Acacia</i> in Euro-Mediterranean dune ecosystems linking remote sensing and ecophysiology
2012 – 2016	Research Assistant at the ILÖK, WWU in the EU FP7 funded project „ Inspected.net “: assessment of invasive <i>Acacia</i> sp. in oligotrophic ecosystems in Portugal and Brazil
2012 – 2013	Research Assistant at the ILÖK, WWU in the R&D „ Mediating Natural Heritage using GI technologies “
2011 – 2012	Graduate Assistant at the ILÖK, WWU
2011	DAAD Scholar at the Centre of Environmental Biology, University of Lisbon, Portugal
SINCE 2011	Doctoral Studies at the ILÖK, WWU
2009	Diploma Thesis in Landscape Ecology at the ILÖK, WWU, in cooperation with the universities of Bielefeld/Germany and Lisbon/Portugal; Grade 1.1 (Very Good)
2007	EU-ERASMUS Internship at the Instituto de Ciência Aplicada e Tecnologia, Lisbon, Portugal
2001 – 2009	Studies in “Landscape Ecology” at the ILÖK, WWU; Grade 1.9 (Good)
2004 – 2005	EU-ERASMUS Studies in Environmental Biology at the University of Lisbon, Portugal
2000 – 2001	Peace Service at EcoSeeds/Northern Ireland with EIRENE e.V.: Habitat restoration, native seed preservation, reconciliation
1990 – 1999	A-levels at the Ruhr-Gymnasium Witten, Germany

RESEARCH PROJECTS

- SINCE 2015 [RapidEye on Acacia](#) (PI): Detection and monitoring of the invasive tree *Acacia dealbata*. RapidEye Science Archive.
- SINCE 2013 [QUEEN](#): QUantifying the spatial impact of an invasivE Ecosystem eNginer; Applying airborne remote sensing (hyperspectral, LiDAR) and field spectroscopy to assess the invasion by *Acacia longifolia*, DFG.
- 2012 [„Mediating Natural Heritage using GI technologies“](#), Land NRW.
- 2012 – 2016 [Inspected.net](#): INvasive Species Evaluation, ConTrol & EDucation.NETwork, FP 7 EU Marie Curie IRSES. Includes set up of the [Fieldspec Lab](#) at the Laboratory of Ecology and Evolution of Plants, Federal University of Viçosa, Brazil.
- 2011 [DeInVader](#) (PI, under “completed projects”): Flight campaign (hyperspectral, LiDAR) in SW Portugal to detect the invasive *Acacia longifolia*, preparatory work for the projects „Queen“ and „Inspected.net“, funded by EUFAR.

WORKSHOPS

- 2014 5th ESA Advanced Training Course on Land Remote Sensing. European Space Agency. Valencia, Spain.
- 2011 EUFAR FP7 Expert Working Group “Hyperspectral Applications for Soil”: A Demonstration and Practical Exercise for Modeling Soil Spectral Information (DePeMossi). GFZ Potsdam, Germany.
- 2010 1st EUFAR FP7 Training Course “ADvanced Digital Remote sensing in Ecology and earth Sciences Summer School” (ADDRESS). European Facility for Airborne Research. Tihany, Hungary.

FIELD SAMPLING SKILLS

- Field spectroscopy at leaf and canopy level (ASD Fieldspec 4)
- Differential GPS (Trimble GeoXH)
- Hemispherical photography
- Sampling of plant physiological parameters (leaf water potential, sap flow, leaf biochemistry including stable isotopes)

SOFTWARE SKILLS

- ENVI 5.3 including atmospheric correction
- LasTools (Point Cloud Data)
- QGIS, SAGA GIS
- R: packages include hsdar, raster, and caret (classification, PLS regression), RStudio
- Gap Light Analyzer (LAI, canopy openness)

LANGUAGES

German (mother tongue), English (fluent), Portuguese (fluent), French (basic), Spanish (basic)

PUBLICATIONS

PEER REVIEWED

1. **Große-Stoltenberg A**, Hellmann C, Werner C, Oldeland J, Thiele J (2016): Evaluation of Continuous VNIR-SWIR Spectra versus Narrowband Hyperspectral Indices to Discriminate the Invasive *Acacia longifolia* within a Mediterranean Dune Ecosystem. *Remote Sensing*. 2016, 8: 334.
2. Heim RHJ, Jürgens N, **Große-Stoltenberg A**, Oldeland J (2015): The Effect of Epidermal Structures on Leaf Spectral Signatures of Ice Plants (Aizoaceae). *Remote Sensing*. 2015, 7: 16901-16914, doi:10.3390/rs71215862
3. Hellmann C, **Große-Stoltenberg A**, Lauströer V, Oldeland J, Werner C (2015): Retrieving nitrogen isotopic signatures from fresh leaf reflectance spectra: disentangling $\delta^{15}\text{N}$ from biochemical and structural leaf properties. *Frontiers in Plant Science*. 2015, 6:307.
4. Lehmann JRK, **Große-Stoltenberg A**, Römer M, Oldeland J (2015): Field Spectroscopy in the VNIR-SWIR Region to Discriminate between Mediterranean Native Plants and Exotic-Invasive Shrubs Based on Leaf Tannin Content. *Remote Sensing*. 2015, 7, 1225-1241.
5. Buck O, Pereira C, **Grosche-Stoltenberg A**, Räkers J, Buttschardt TK, Wolf PJ, Mütterthies A (2014): Erlebnis Naturerbe. Vermittlung von Naturschutz-Themen mit Geoinformationstechnologien. *Naturschutz und Landschaftsplanung*. 2014, 46, 23–29.
6. Rascher KG*, **Große-Stoltenberg A***, Máguas C, Meira-Neto JAA, Werner C (2011): *Acacia longifolia* invasion impacts vegetation structure and regeneration dynamics in open dunes and pine forests. *Biological Invasions*. 2011, 13, 1099-1113. *(geteilte Autorenschaft)
7. Rascher KG, **Große-Stoltenberg A**, Máguas C, Werner C (2011): Understory invasion by *Acacia longifolia* alters the water balance and carbon gain of a Mediterranean pine forest. *Ecosystems*. 2011, 14, 904-919.

IN PREPARATION

8. **Große-Stoltenberg A***, Hellmann C*, Oldeland J, Werner C, Thiele J (to be submitted): A multivariate whole-community assessment of leaf trait dissimilarity between invasive *Acacia* spp. and native Mediterranean dune species using field spectroscopy.
9. Hellmann C, **Große-Stoltenberg A**, Thiele J, Oldeland J, Werner C (under review): Heterogeneous environments shape invader impacts: integrating environmental, structural and functional effects using isoscapes and remote sensing.
10. **Große-Stoltenberg A**, Werner C, Thiele J, Hellmann C, Oldeland J (in prep). Detection and impact assessment of an invasive transformer species using hyperspectral vegetation indices.
11. Oldeland J, **Große-Stoltenberg A**, Naftal L, Strohbach BJ (under review). NIR is not enough – comparing UAV derived image features for savannah tree species discrimination. In Diaz-Delgado R, Lucas R, Hurford C (Eds.) *The Roles of Remote Sensing in Nature Conservation*. Springer.

MEDIA OUTREACH

Radio interview “[Pflanzen im Visier](#)” together with Prof. Gilberto Câmara (INPE, Brazil) about remote sensing of ecosystems, in the science programm „Forschung Aktuell“, and its special issue on remote sensing “Mission Erde – Wie Satelliten unseren Planeten erkunden”, 27.2.2014, Deutschlandfunk.

Radio interview “"Neue Pflanzen aus fernen Ländern"” together with Dr. Jan Thiele, ILÖK, WWU, in the science programm „Logo-Das Wissenschaftsmagazin“, 31.3.2014, NDR Info.

REVIEWER

EUFAR

Biodiversity & Ecology

Remote Sensing

Science of the Total Environment

European Journal of Remote Sensing

Nature Conservation

MAIN COLLABORATIONS

Prof. Dr. Christiane Werner, Chair of Ecosystem Physiology, Albert-Ludwigs-Universität Freiburg, Germany.

Dr. Jens Oldeland, Biodiversity, Evolution and Ecology of Plants (BEE), Biocenter Klein Flottbek and Botanical Garden, University of Hamburg, Germany.

Dr. Cristina Máguas, Environmental Stress & Functional Ecology – ESFE, Centre for Ecology, Evolution and Environmental Changes (cE3c), University of Lisbon, Portugal.

Prof. Joao Meira Neto, Laboratory of Ecology and Evolution of Plants, Federal University of Viçosa, Brazil.

Dr. Helder Viana, Polytechnic Institute of Viseu, Portugal.

Münster, 21.03.2017