

# Dr. Miguel Alvarez

## Curriculum Vitae

Max-Hirsch-Str. 10

53844 Troisdorf

Germany

☎ +49 (178) 6062647

✉ malvarez@uni-bonn.de

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### Personal Details

Birth **October, 27<sup>th</sup> 1978**, *Las Cabras, Chile*.  
Nationality **Chilean**.  
Marital status **Partnership, one daughter**.  
Business address **INRES/Pflanzenernährung, University of Bonn, Nussallee 1, 53115 Bonn, Germany**.

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### Education and Academic Degrees

2005–2007 **PhD studies (Dr. rer. nat., summa cum laude)**, *Department of Geobotany, University of Freiburg, Germany*, Thesis: “Diasporenbank und Ökologie der Vegetation temporärer Gewässer im Cholchol-Gebiet (9. Region, Chile)”.  
1997–2002 **Agronomy (Agronomy Engineer)**, *Universidad Austral de Chile, Valdivia, Chile*, Thesis: “Vegetation cover and soil seed bank in two neighbouring grassland communities in the Province Osorno (10<sup>th</sup> Region, Chile)”, original in Spanish.

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### Grants and Awards

2008 **Hans-Spemmann-Preis**, *award to the PhD thesis, Dr.-Gerhard-Fritz-Stiftung*.  
2004–2006 **German Academic Exchange Service (DAAD)**, *fellowship for PhD studies at the University of Freiburg, Germany*.  
2005–2013 Diverse travel grants supported by the **A.F.W. Schimper Stiftung**, the **Otti Wilmanns Stiftung**, and the **Wissenschaftliche Gesellschaft in Freiburg im Breisgau**.

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### Working Experience

since 2013 **Research Associate**, *Institute of Crop Science and Resource Conservation, University of Bonn, Germany*, scientific coordination in the context of the projects GlobE-wetlands and RCR (Resilience, Collapse and Reorganization in social-ecological systems of African savannas).  
2009–2013 **Research Associate**, *Institute of Crop Science and Resource Conservation, University of Bonn, Germany*, scientific coordination in the context of the SWEA project (Small-Wetlands in East Africa).  
2009 **Research Associate**, *Centre for Remote Sensing of Land Surfaces*, data analysis and modelling of land-use changes in Benin (activities in the context of the IMPETUS project).  
2008 **Research Assistant**, *Geobotany, University of Bonn, Germany*, statistical data analysis.

2006–2008 **Research Assistant**, *Geobotany, University of Freiburg, Germany*, maintenance of a database focusing on ephemeral wetland vegetation in South America.

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## Teaching and Training

- 2017 **Introduction to the Package `vegtable`**. Half-day training workshop organized in the context of the 16<sup>th</sup> Meeting on Vegetation Databases, Freiburg im Breisgau, Germany.
- 2016 **Storage and Analysis of Vegetation Data: a crash course**. 2-days training workshop organized at the Addis Ababa University, Ethiopia.
- 2015 **R and its Applications in GIS**. 1-week training workshop organized once at the Addis Ababa University, Ethiopia and once at the University of Bonn, Germany.
- 2011–2015 **R and its Applications in Statistics**. 1-week training workshop organized three times at the University of Bonn and twice at the University of Freiburg, Germany.

## Co-supervised Theses

2011–2016 Co-supervision of **1** diploma thesis, **6** Master-theses and **5** further dissertations at the University of Bonn.

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## Further Skills

- Languages **Spanish** (native speaker), **English** (fluent), **German** (fluent), **Swahili** (basics).
- Databases Custodian of **CL-Dataveg** and **SWEA-Dataveg**. **Turboveg** and development of R packages **taxlist** and **vegtables**. Relational databases with **Microsoft-Access**, **PostgreSQL** and **PostGIS**.
- Computer **Windows** operative system, **Microsoft-Office**, **eclipse** workbench, **L<sup>A</sup>T<sub>E</sub>X**, and **Markdown**. **Juice** and **QGIS**.
- Programming **R** (packages **taxlist**, **vegtable**, and **conosur**).

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## Working Groups and Memberships

- since 2014 **Editorial Board of *Phytocoenologia***.
- since 2014 **East Africa Natural History Society**.
- since 2014 **Naturhistorischer Verein der Rheinlande und Westfalens**.
- since 2011 **International Association of Vegetation Science (IAVS)**.
- since 2009 **National Geographic Society**.
- since 2008 **Reinhold-Tüxen-Gesellschaft**.

## Further working groups

Currently active member of the **Working Group Ecoinformatics** and the **Working Group Phytosociological Nomenclature** from IAVS, the **Fresh-water Plant Specialist Group** from IUCN, and the **Arbeitsgruppe Vegetationsdatenbanken**.

## Further memberships

**Freundeskreis Botanischer Gärten der Universität Bonn** and **Friends of Nairobi Arboretum**.

## Reviews

Appointed as external examiner for MSc. theses at the **Makerere University** in Kampala, Uganda. Referee in the journals **Phytocoenologia**, **Applied Vegetation Science**, **Ecological Indicators**, **Hydrobiologia**, **Arid Land Research and Management**, **Plant Biosystems**, **Gayana Botánica**, and **Bosque**.

## Publications

**54** scientific contributions in English, Spanish and German.

**2** books and **2** book chapters.

**50** articles in journals.

Manuscripts  
in review

**Alvarez M**, 2017. Syntaxonomic classification of aquatic and semi-aquatic vegetation in two East African sites: preliminary results based on Cocktail algorithms. *Phytocoenologia*.

Behn K, Becker M, Burghof S, Möselers BM, Willy DK, **Alvarez M**, 2017. Predicting biological integrity in East African wetlands using vegetation attributes. *Ecological Indicators*.

Amigo J, San Martín C, Ramírez, **Alvarez M**, 2017. Nomenclatural revision and syntaxonomical proposal for wetland peat vegetation in the Valdivian-Magellanian region. *Lazaroo*.

Selected  
published  
works

Scherer L, Curran M, **Alvarez M**, 2017. Expanding Kenya's protected areas under the Convention of Biological Diversity to maximize coverage of plant diversity. *Conservation Biology* 31:302–310.

**Alvarez M**, Leparmarai P, Heller G, Becker M, 2016. Recovery and germination of *Prosopis juliflora* (Sw.) DC. seeds after ingestion by goats and cattle. *Arid Land Research and Management* 31: 71–80.

Beuel S, **Alvarez M**, Amler E, Behn K, Kotze DC, Kreye C, Leemhuis C, Wagner K, Willy DK, Ziegler S, Becker M, 2016. A rapid assessment of anthropogenic disturbances in East African wetlands. *Ecological Indicators* 67: 684–692.

Deil U, **Alvarez M**, Hemp A, 2016. Amphibious vegetation in the Afro-Alpine belt and the role of cryoturbation in creating regeneration niches. In: Box EO (ed.), *Vegetation structure and function at multiple spatial, temporal and conceptual scales*, pp 315–330. Springer.

**Alvarez M**, Deil U, 2015. Vascular plant assemblages of ephemeral wetlands along the Mediterranean-temperate gradient in Chile. *Gayana Botánica* 72: 177–191.

Weigend M, **Alvarez M**, 2014. Distribution of *Buglossoides arvensis* (L.) I.M.Johnst. (Boraginaceae) in South America: new records for the floras of Chile, Bolivia, Peru and Colombia. *Gayana Botánica* 71: 167–170.

**Alvarez M**, Möselers BM, San Martín C, 2013. Tendency and distribution indices for ordinal variables applied to Ellenberg indicator values. *Gayana Botánica* 70: 225–233.

**Alvarez M**, San Martín J, Deil U, 2012. Nanism and ephemerism as reasons for a hidden abundance in vernal pool plants: the example of *Lepuropetalon spathulatum* in Chile. *Feddes Repertorium* 123: 55–66.

**Alvarez M**, Seis K, Möselers BM, 2012. Floristic composition and spatial distribution of germinable seeds in a spruce plantation. *Annals of Forest Science* 69: 557–567.

### Congress Contributions (since 2013)

- 2017 **Alvarez M**, Choge S, Heller G, Malombe I, Matheka K, Becker M. *Invasion by Prosopis juliflora in the Lake Baringo basin (Kenya): competition ability or opportunity?* 21<sup>st</sup> AETFAT Congress, National Museums of Kenya, Nairobi, Kenya.
- 2017 **Alvarez M**, Behn K, Malombe I, Curran M, Scherer L. *SWEA-Dataveg: A database of vegetation-plots from Eastern Africa and beyond.* 21<sup>st</sup> AETFAT Congress, National Museums of Kenya, Nairobi, Kenya.
- 2017 **Alvarez M**, Leemhuis C, Gabiri G, Behn K, Beuel S. *Hydrological gradients and land uses in a sub-Saharan floodplain: the potential use of indicator plants for bio-monitoring.* European Conference of Tropical Ecology, Brussels, Belgium.
- 2017 Behn K, **Alvarez M**, Becker M, Gabiri G, Kwesiga J, Möselers BM. *Regeneration dynamics in floodplains: plant species guilds in the Kilombero Floodplain, Tanzania.* European Conference of Tropical Ecology, Brussels, Belgium.
- 2016 **Alvarez M**, Choge S, Heller G, Malombe I, Matheka K, Becker M. *Forest clearings as cause of invasion by woody species: the case of Prosopis in Eastern Africa.* Forstwissenschaftliche Tagung 2016, Albert-Ludwigs-Universität Freiburg, Germany.
- 2016 **Alvarez M**, Behn K, Malombe I, Curran M, Scherer L. *Vegetation of East African wetlands: human impact and resulting changes in species composition.* 15<sup>th</sup> Meeting on Vegetation Databases, University of Potsdam, Germany.
- 2016 **Alvarez M**, Deil U, Chytrý M. *Vegetation units of ephemeral wetlands in extra- and orotropical South America: distribution according to predictive models.* 25<sup>th</sup> International Conference of Phytosociology, University of Santiago de Compostela, Spain.
- 2016 Ramírez C, San Martín C, Sandoval V, Amigo J, **Alvarez M**, Vidal O, Pérez Y. *Estudios fitosociológicos en turberas de la región biogeográfica Valdiviano-Magellánica: florística y sintaxonomía.* 25<sup>th</sup> International Conference of Phytosociology, University of Santiago de Compostela, Spain.
- 2015 **Alvarez M**, Heller G, Matheka K, Malombe I, Choge S, Becker M. *Prosopis juliflora invasion in Kenya (East Africa): empty niche or opportunistic establishment?* 58<sup>th</sup> Annual Symposium of the International Association for Vegetation Science, Masaryk University, Brno, Czech Republic.
- 2015 **Alvarez M**, Deil U. *Occurrence and distribution of ephemeral wetland communities in South America: completing vegetation data with herbarium records.* International Symposium of Mediterranean Temporary Ponds, Università degli Studi di Sassari, Sardinia, Italy.
- 2013 **Alvarez M**, Becker M, Langensiepen M, Möselers BM, Handa C, Oyieke HA, Kamiri HW, Misana S, Mogha NG. *Ecological indicators in agriculturally used wetlands of East Africa: why there are upland plants in the wetland?* 12<sup>th</sup> Meeting on Vegetation Databases, German Centre for Integrative Biodiversity Research, Leipzig, Germany.

- 2013 **Alvarez M**, Amigo J, San Martín C. *The class Molinio-Arrhenatheretea in Chile: an evidence of the ecological imperialism*. 5<sup>th</sup> Latin America Symposium, Museum Koenig, Bonn, Germany.

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## References

**Prof. Dr. Mathias Becker**

INRES/Pflanzenernährung  
Rheinische Friedrich-Wilhelms-Universität Bonn  
Karlrobert-Kreiten-Str. 13  
53115 Bonn, GERMANY  
✉ mathias.becker@uni-bonn.de  
☎ +49 (228) 73 4001

**Prof. Dr. Ulrich Deil (emerit.)**

Institut für Biologie/Geobotanik  
Albert-Ludwigs-Universität Freiburg  
Schänzlestr. 1  
79104 Freiburg, GERMANY  
✉ ulrich.deil@biologie.uni-freiburg.de  
☎ +49 (761) 203 2695

**Prof. Dr. Carlos Ramírez (emerit.)**

Instituto de Ciencias Evolutivas y Ambientales  
Universidad Austral de Chile  
CHILE  
✉ cramirez@uach.cl

**Prof. Dr. Francisco Javier Amigo Vázquez**

Departamento de Botánica  
Universidade de Santiago de Compostela  
SPAIN  
✉ javier.amigo.vazquez@usc.es  
☎ +34 981563100

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