

---

# **Biodiversity & Ecology**

Journal of the Division Biodiversity, Evolution and Ecology of Plants of the  
Biocentre Klein Flottbek, the Herbarium Hamburgense, and the Botanical  
Garden, University of Hamburg

Volume 4:

## **Vegetation databases for the 21st century**

Edited by

Jürgen Dengler, Jens Oldeland, Florian Jansen, Milan Chytrý, Jörg Ewald,  
Manfred Finckh, Falko Glöckler, Gabriela Lopez-Gonzalez, Robert K. Peet &  
Joop H.J. Schaminée

Hamburg 2012



---

# Contents

## EDITORIALS

Norbert Jürgens

**A roadmap towards the global view on vegetation** ..... 7

Jürgen Dengler, Jens Oldeland, Florian Jansen, Milan Chytrý, Jörg Ewald, Manfred Finckh, Falko Glöckler, Gabriela Lopez-Gonzalez, Robert K. Peet & Joop H.J. Schaminée

**Facilitating access to vegetation data – Introduction to the Special Volume** ..... 9

## ORDINARY CONTRIBUTIONS

Jürgen Dengler, Walter G. Berendsohn, Erwin Bergmeier, Milan Chytrý, Jiří Danihelka, Florian Jansen, Wolf-Henning Kusber, Flavia Landucci, Andreas Müller, Edoardo Panfili, Joop H.J. Schaminée, Roberto Venanzoni & Eckhard von Raab-Straube

**The need for and the requirements of EuroSL, an electronic taxonomic reference list of all European plants** ..... 15

Jaime R. García Márquez, Carsten F. Dormann, Jan Henning Sommer, Marco Schmidt, Adjima Thiombiano, Sié Sylvestre Da, Cyrille Chatelain, Stefan Dressler & Wilhelm Barthlott

**A methodological framework to quantify the spatial quality of biological databases** ..... 25

Jörg Ewald

**Vegetation databases provide a close-up on altitudinal tree species distribution in the Bavarian Alps** .... 41

Steffi Heinrichs, Wulfard Winterhoff & Wolfgang Schmidt

**Vegetation dynamics of beech forests on limestone in central Germany over half a century – effects of climate change, forest management, eutrophication or game browsing?** ..... 49

Miguel Alvarez, Mathias Becker, Beate Böhme, Collins Handa, Matthias Josko, Hellen W. Kamiri, Matthias Langensiepen, Gunter Menz, Salome Misana, Neema G. Mogha, Bodo Maria Mösel, Emiliana J. Mwita, Helida A. Oyieke & Nomé Sakané

**Floristic classification of the vegetation in small wetlands of Kenya and Tanzania** ..... 63

## INTRODUCTION TO THE DATABASE REPORTS

Florian Jansen, Falko Glöckler, Milan Chytrý, Miquel De Cáceres, Jörg Ewald, Manfred Finckh, Gabriela Lopez-Gonzalez, Jens Oldeland, Robert K. Peet & Jürgen Dengler

**News from the Global Index of Vegetation-Plot Databases (GIVD): the metadata platform, available data, and their properties** ..... 77

Falko Glöckler, Jürgen Dengler, Florian Jansen, Jens Oldeland & Robert K. Peet

**Guide to GIVD's Fact Sheets** ..... 83

Falko Glöckler

**Overview of the GIVD-registered databases**..... 89

---

LONG DATABASE REPORTS

Gabriela Lopez-Gonzalez, Mark Burkitt, Simon L. Lewis, Oliver L. Phillips <b>ForestPlots.net – managing permanent plot information across the tropics</b> .....	95
Marco Schmidt, Thomas Janßen, Stefan Dressler, Karen Hahn, Mipro Hien, Souleymane Konaté, Anne Mette Lykke, Ali Mahamane, Bienvenu Sambou, Brice Sinsin, Adjima Thiombiano, Rüdiger Wittig & Georg Zizka <b>The West African Vegetation Database</b> .....	105
Gerhard Muche, Ute Schmiedel & Norbert Jürgens <b>BIOTA Southern Africa Biodiversity Observatories Vegetation Database</b> .....	111
G.W. Wieger Wamelink, Marjolein H.C. van Adrichem, Han F. van Dobben, Joep Y. Frissel, Merel den Held, Veronique Joosten, Agnieszka H. Malinowska, Pieter A. Slim & Ruut M.A. Wegman <b>Vegetation relevés and soil measurements in the Netherlands: the Ecological Conditions Database (EC)</b> .....	125
Gisèle Weyembergh, Filiep T’jollyn & Desiré Paelinckx <b>VLAVEDAT – the vegetation database of Flanders (northern Belgium)</b> .....	133
Iva Apostolova, Desislava Sopotlieva, Hristo Pedashenko, Nikolay VeleV & Kiril Vasilev <b>Bulgarian Vegetation Database: historic background, current status and future prospects</b> .....	141
Florian Jansen, Jürgen Dengler & Christian Berg <b>VegMV – the vegetation database of Mecklenburg-Vorpommern</b> .....	149
Jörg Ewald <b>BERGWALD – the vegetation database of mountain forests in the Bavarian Alps</b> .....	161
Birgit Reger, Ralf Schüpferling, Josefine Beck, Elke Dietz, Daniel Morovitz, Roman Schaller, Gerhard Wilhelm & Jörg Ewald <b>WINALPecobase – ecological database of mountain forests in the Bavarian Alps</b> .....	167
Jörg Ewald, Rudolf May & Martin Kleikamp <b>VegetWeb – the national online-repository of vegetation plots from Germany</b> .....	173
Emmanuel Garbolino, Patrice De Ruffray, Henry Brisse & Gilles Grandjouan <b>The phytosociological database SOPHY as the basis of plant socio-ecology and phytoclimatology in France</b> .....	177
Roberto Venanzoni, Edoardo Panfili & Daniela Gigante <b>Toward an Italian national vegetation database: VegItaly</b> .....	185
Irene Prisco, Marta Carboni & Alicia Teresa Rosario Acosta <b>VegDunes – a coastal dune vegetation database for the analysis of Italian EU habitats</b> .....	191
Joop H.J. Schaminée, Stephan M. Hennekens & Wim A. Ozinga <b>The Dutch National Vegetation Database</b> .....	201

Luis Cayuela, Lucía Gálvez-Bravo, Ramón Pérez Pérez, Fábio S. de Albuquerque, Duncan J. Golicher, Rakan A. Zahawi, Neptalí Ramírez-Marcial, Cristina Garibaldi, Richard Field, José M. Rey Benayas, Mario González-Espinosa, Patricia Balvanera, Miguel Ángel Castillo, Blanca L. Figueroa-Rangel, Daniel M. Griffith, Gerald A. Islebe, Daniel L. Kelly, Miguel Olvera-Vargas, Stefan A. Schnitzer, Eduardo Velázquez, Guadalupe Williams-Linera, Steven W. Brewer, Angélica Camacho-Cruz, Indiana Coronado, Ben de Jong, Rafael del Castillo, Íñigo Granzow-de la Cerda, Javier Fernández, William Fonseca, Luis Galindo-Jaimes, Thomas W. Gillespie, Benigno González-Rivas, James E. Gordon, Johanna Hurtado, José Linares, Susan G. Letcher, Scott A. Mangan, Jorge A. Meave, Ernesto V. Méndez, Victor Meza, Susana Ochoa-Gaona, Chris J. Peterson, Viviana Ruiz-Gutierrez, Kymberley A. Snarr, Fernando Tun Dzul, Mirna Valdez-Hernández, Karin M. Viergever, David A. White, John N. Williams, Francisco J. Bonet & Regino Zamora <b>The Tree Biodiversity Network (BIOTREE-NET): prospects for biodiversity research and conservation in the Neotropics</b> .....	211
Andrew N. Gray, Thomas J. Brandeis, John D. Shaw & William H. McWilliams <b>Forest Inventory and Analysis Database of the United States of America (FIA)</b> .....	225
Robert K. Peet, Michael T. Lee, Michael D. Jennings & Don Faber-Langendoen <b>VegBank – a permanent, open-access archive for vegetation-plot data</b> .....	233
Robert K. Peet, Michael T. Lee, M. Forbes Boyle, Thomas R. Wentworth, Michael P. Schafale & Alan S. Weakley <b>Vegetation-plot database of the Carolina Vegetation Survey</b> .....	243
Donald M. Waller, Kathryn L. Amatangelo, Sarah Johnson & David A. Rogers <b>Wisconsin Vegetation Database – plant community survey and resurvey data from the Wisconsin Plant Ecology Laboratory</b> .....	255
Flávia Fonseca Pezzini, Pablo Hendrigo Alves de Melo, Dayane Mayely Silva de Oliveira, Rainer Xavier de Amorim, Fernando Oliveira Gouvêa de Figueiredo, Debora Pignatari Drucker, Flávio Rogério de Oliveira Rodrigues, Gabriela Zuquim, Thaise Emilio, Flávia Regina Capellotto Costa, William Ernest Magnusson, Adeilza Felipe Sampaio, Albertina Pimentel Lima, Ana Raquel de Mesquita Garcia, Angelo Gilberto Manzatto, Anselmo Nogueira, Cândida Pereira da Costa, Carlos Eduardo de Araújo Barbosa, Carolina Bernardes, Carolina Volkmer de Castilho, Catia Nunes da Cunha, Cintia Gomes de Freitas, Claymir de Oliveira Cavalcante, Diego Oliveira Brandão, Domingos de Jesus Rodrigues, Eliana Celestino da Paixão Rodrigues dos Santos, Fabricio Beggiano Baccaro, Françoise Yoko Ishida, Fernanda Antunes Carvalho, Gabriel Massaine Moulatlet, Jean-Louis Bernard Guillaumet, José Luiz Purri Veiga Pinto, Juliana Schietti, Julio Daniel do Vale, Lauren Belger, Luciano Martins Verdade, Marcelo Petratti Pansonato, Marcelo Trindade Nascimento, Márcia Cléia Vilela dos Santos, Mariana Souza da Cunha, Rafael Arruda, Reinaldo Imbrozio Barbosa, Ricardo Laerte Romero, Susamar Pansini, Tania Pena Pimentel <b>The Brazilian Program for Biodiversity Research (PPBio) Information System</b> .....	265
Jesús Orlando Rangel-Churio & Jairo Humberto Pinto-Zárate <b>Colombian Páramo Vegetation Database (CPVD) – the database on high Andean páramo vegetation in Colombia</b> .....	275
<b>SHORT DATABASE REPORTS</b>	
Databases that cover more than one continent .....	287
Databases in Africa .....	292

---

Databases in Asia .....	300
Databases in Australasia .....	316
Databases in Europe .....	319
Databases in North America .....	431
Databases in South America .....	441