

Judy Simon

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Education

2014	“Umhabilitation”, Department of Biology, University of Konstanz, Germany; <i>venia legendi</i> “Ecology and Botany”
2013	“Habilitation”, Chair of Tree Physiology, University of Freiburg, Germany; <i>venia legendi</i> “Ecosystem Physiology”
2003 – 2007	PhD (Botany), University of Melbourne, Australia, School of Botany
2002	Diploma (Geography, Biogeography), Saarland University, Saarbrücken, Germany
1998-2002	studies of Biogeography, Saarland University, Saarbrücken, Germany
1995-1998	studies of Biology / Geography, RWTH Aachen, Aachen, Germany
1993-1995	vocational training at the Rheinische Akademie e.V. Köln, Cologne, Germany (biological technical assistant)

Academic and Professional Career

2017 –	Heisenberg Fellow / Group leader “Plant Interactions Ecophysiology”, Department of Biology, University of Konstanz, Germany
2014 – 2016	Interim Leader, Plant Physiology & Biochemistry, Department of Biology, University of Konstanz, Germany
2014	Junior Group Leader, Plant Physiology & Biochemistry, Department of Biology, University of Konstanz, Germany (Apr-Sep)
2014	Lecturer at the Faculty of Environment and Natural Resources, University of Freiburg, Germany (Feb-Mar)
2013 – 2014	Guest Scientist at the Ecology Lab (Mark van Kleunen), University of Konstanz, Germany
2011 – 2014	Margarete von Wrangell Fellow, Chair of Tree Physiology, University of Freiburg, Germany
2006 – 2010	Postdoctoral Research Fellow, Institute of Forest Botany and Tree Physiology, Chair of Tree Physiology, University of Freiburg, Germany

Project coordination

- 2009 – 2010 coordinator of the set-up of the pre-proposal for the research training group (Graduiertenkolleg) “Adaptation of managed forests to regional climate change – model region Upper Rhine Valley”, Chair of Tree Physiology, University of Freiburg, Germany
- 2006 – 2009 coordinator (part-time) of the DFG research unit FOR 788, Chair of Tree Physiology, University of Freiburg, Germany

Functions in committees, representative

- 2018 equal opportunities officer for the Faculty of Sciences, University of Konstanz, Germany (Apr-Sep)
- 2018 – equal opportunities officer for the appointment committee “Systems Toxicology” at the University of Konstanz, Germany
- 2017 – subject editor for the journal *European Journal of Forest Research*
- 2017 – guest editor for Frontiers in Plant Science – Functional Plant Ecology, Research Topic “Plant secondary compounds in forest ecosystems under global change: from defense to carbon sequestration”
- 2016 – 2017 equal opportunities officer for the appointment committee “Limnology (Aquatic Ecology)” at the University of Konstanz, Germany
- 2014 – associate editor for Frontiers in Plant Science – Functional Plant Ecology
- 2013 – member of the *Tree Physiology* Editorial Review Board
- 2013 – 2015 guest editor for Frontiers in Plant Science – Functional Plant Ecology, Research Topic “Plant competition in a changing world” (invited topic)
- 2012 – member of the BES (British Ecological Society) Review College
- 2011 – 2012 contact person of the faculty mentoring programme at the Faculty of Forest and Environmental Sciences, University of Freiburg
- 2010 – 2011 contact person for “FUTURA Mentoring” of the Faculty of Forest and Environmental Sciences, University of Freiburg
- 2010 representative of the University of Freiburg at the Worldwide Universities Network Global Challenge Workshop “Adapting to Climate Change”, Pennsylvania State University, State College, USA
- 2008 – 2010 mentor within “FUTURA Mentoring”, University of Freiburg
- 2004 – 2005 committee member (Treasurer), School of Botany postgraduate student group, University of Melbourne, Melbourne, Australia
- 2004 – 2005 student representative on School of Botany Curriculum Committee and Postgraduate Studies Committee, University of Melbourne, Melbourne, Australia

Research grants

Total of c. 980,000€ as PI

2018 – 2019	New transparent soil microcosms for live assessment of competition for nitrogen in the rhizosphere (PI, 108,700€), VolkswagenStiftung, in collaboration with Lionel Dupuy (James Hutton Institute, Dundee, Scotland, UK)
2018	Soil organic matter decomposition in forest ecosystems under global change (PI, 4,041€) – University of Konstanz, start-up funding, in collaboration with Bartosz Adamczyk (Natural Resources Institute Finland, Helsinki, Finland)
2018	Woody Plants Interactions (PI, 10,000€) – University of Konstanz, Germany, Committee on Research
2018	Development of a “transparent soil” microcosm system (PI, 3,390€), University of Konstanz, International Office start-up funding, in collaboration with Lionel Dupuy (James Hutton Institute, Dundee, Scotland, UK)
2017 – 2020	Woody plants – Interactions and resource allocation strategies (PI, 181,255€), DFG Heisenberg Fellowship
2017 – 2020	Consequences of competition and abiotic stress on the acquisition and internal allocation of nitrogen in temperate woody species” (PI, 318,000€), DFG research grant application (“Sachbeihilfe”)
2017 – 2020	Belowground functional traits of plants as drivers of biodiversity and ecosystem functions”, associated investigator in collaboration with Mark van Kleunen (University of Konstanz, PI), Matthias Rillig (FU Berlin, co-PI), DFG Priority Programme 1374 – Biodiversity Exploratories
2017	Influence of mycorrhizae on the competition for different nitrogen sources in deciduous tree species (PI, 8,722€) – University of Konstanz, Germany, Young Scholar Fund
2016	Competition for nitrogen between woody species and invasive grasses (PI, 23,000€) – University of Konstanz, Germany, Young Scholar Fund
2016	Plant interactions (PI, 12,000€) – University of Konstanz, Germany, Committee on Research
2015	Intra- and interspecific competition for different nitrogen sources in a temperate forest community (PI, 9,955€) – University of Konstanz, Germany, Young Scholar Fund
2015	Plant interactions in temperate forest ecosystems (PI, 10,000€) – University of Konstanz, Germany, Committee on Research
2015	Plant interactions in the rhizosphere of forest ecosystems (PI, 17,420€) – University of Konstanz, EU start-up funding

Research grants (cont.)

2014 – 2015	Competition for nitrogen in (sub-) tropical forest ecosystems (PI, 57,120€) – University of Konstanz, Young Scholar Fund
2013 - 2014	Plant invasions – Competitive advantage due to higher N use efficiency or optimised N acquisition strategies (PI) (15,500€) – University of Freiburg, Research Innovation Fund grant
2011 – 2014	Effects of climate change on the competition for nitrogen in temperate forest ecosystems (PI) (200,000€) – Ministry of Science, Research and the Arts Baden-Württemberg / European Social Fund
2009 – 2012	Competition between plants and soil microorganisms for nitrogen in beech-dominated deciduous forests (associated Postdoctoral Research Fellow, co-supervision of 2 PhD students) (160,000€) – German Research Foundation (DFG) joint research consortium
2006 – 2009	Competitive mechanisms of water and nitrogen partitioning in beech-dominated deciduous forests (associated Postdoctoral Research Fellow, co-supervision of 2 PhD students) (170,000€) – German Research Foundation (DFG) research unit FOR 788

Advanced training

2018	EMBL course “Fundamentals of Widefield and Confocal Microscopy and Imaging”, EMBL Heidelberg, Germany (Jun)
2017	visiting researcher at the group of Bartosz Adamczyk, Department of Food and Environmental Sciences, University of Helsinki, Helsinki, Finland (Jun)
2015	Workshop “International Summer Sessions in Metabolomics”, West Coast Metabolomics Center, UC Davis, USA (Aug/Sep)
2012 – 2013	e-learning certificate, University of Freiburg, Freiburg, Germany (76 UE module basics, 28 UE module implementation)
2012 – 2013	participation in the programme “English Support for Lecturers”
2007 – 2010	„Hochschuldidaktik-Zertifikat“, Baden-Württemberg (20 ECTS), university teaching certificate
2007	visiting researcher at the Forest Molecular Biology and Genetics Research Group, Department of Forest and Ecosystem Science, University of Melbourne, Creswick, Australia (Nov)

Academic Awards, Achievements, Scholarships

2017 –	Heisenberg Fellowship (DFG, German Research Foundation)
2011 – 2014	Margarete von Wrangell Fellowship (within the Margarete von Wrangell habilitation programme for women)
2003 – 2006	Melbourne International Research Scholarship, The University of Melbourne, Australia
	Melbourne International Fee Remission Scholarship, The University of Melbourne, Australia
2003	John S. Turner Postgraduate Scholarship, School of Botany, The University of Melbourne, Australia

Professional contributions

<i>Reviewer</i>	National Sciences and Engineering Research Council of Canada LabEX ARBRE, INRA, Nancy, France
	Acta Oecologica; Acta Physiologiae Plantarum; African Journal of Agricultural Research; Agriculture, Ecosystems & Environment; Catena; Allgemeine Forst- und Jagdzeitung; Ecological Entomology; Environmental and Experimental Botany; European Journal of Forest Research; Forests; Frontiers in Functional Plant Ecology; Frontiers in Plant Nutrition; Functional Ecology; Geoderma; International Journal of Biometeorology; New Phytologist; Oecologia; Perspectives in Plant Ecology, Evolution and Systematics; Physiologia Plantarum; Plant Biology; Plant Cell Reports; Plant & Soil; PLoS ONE; Soil Biology & Biochemistry; Soils; Tree Physiology; Trees – Structure & Function; Trees Genetics and Genomes

Conference / session organiser

2012	Organisation of the session “Soil ecology in a changing world” at the Annual Meeting of the Ecological Society of Germany, Austria and Switzerland. September 2012, Lüneburg, Germany
2007	Organisation of the satellite meeting of the Beech Research Group “Competitive mechanisms of water and nitrogen partitioning in beech-dominated deciduous forests” at the 4 th International Symposium on Dynamics of Physiological Processes in Roots of Woody Plants. September 2007, Bangor, Wales, UK

Scientific memberships

2017 –	American Society of Plant Biologists (ASPB)
2014 –	International Society of Root Research (ISRR)
	German Association for Stable Isotope Research (GASIR)
2012 –	British Ecological Society (BES)

Professional contributions (cont.)

Scientific memberships (cont.)

2011 – 2012	German Soil Science Society (DBG)
2009 –	Ecological Society of Germany, Austria and Switzerland (GfÖ)
	German Society for Mass Spectrometry (DGMS)
	Federation of the European Societies of Plant Biology (FESPB)
	German Botanical Society (DBG)
2007 –	International Association for Ecology (Intecol)
2003 – 2006	Australian Society of Plant Scientists (ASPS)

Teaching

2014 –	Lecturer, University of Konstanz, Germany
2007 – 2014	Lecturer, University of Freiburg, Germany
2004 – 2005	Practical demonstrator (1 st year Biology and Chemistry), University of Melbourne, Australia

Various basic and advanced lectures, seminars, practical courses in laboratory and field on plant ecology / ecophysiology / scientific soft skills at under- and postgraduate level in German and English

Mentoring and coaching

2011 – 2012	contact person of the faculty mentoring programme at the Faculty of Forest and Environmental Sciences, University of Freiburg
2010 – 2011	contact person for “FUTURA Mentoring” of the Faculty of Forest and Environmental Sciences, University of Freiburg
2008 – 2010	Mentor within “FUTURA Mentoring”, University of Freiburg

Oral Presentations

2018	Simon J. Influence of mycorrhiza on the competition for different N sources in deciduous tree species. Annual Meeting of the British Ecological Society, Birmingham, UK
2018	Simon J. Rhizosphere interactions – Significance of climate change and plant invasions. Goethe University Frankfurt, Frankfurt/Main, Germany (invited talk, interview for W2-professorship “Plant Ecology”)
2018	Simon J. Responses of woody seedlings to climate change and invasive species. James Hutton Institute, Dundee, Scotland, UK (invited talk)
2018	Simon J. Nitrogen acquisition in native tree communities is influenced by climate change and invasive tree species. Forstwissenschaftliche Tagung, Göttingen, Germany

Oral Presentations (cont.)

- 2018 **Simon J.** Plant interactions and the potential influence by invasive species on the competition for nitrogen. Annual Meeting of the American Society of Plant Biologists, Environmental and Ecological Plant Physiology (EEPP) Section, Montréal, Canada (invited talk)
- 2017 **Simon J.** Competition, avoidance, or facilitation? Regulation of nitrogen acquisition in woody species. University of Helsinki, Department of Food and Environmental Sciences, Helsinki, Finland (invited talk)
- 2017 **Simon J.** Competition for nitrogen in a native forest community and the potential influence by invasive species. PopBio 2017, Halle, Germany
- 2017 **Simon J.** Plant interactions in the rhizosphere. Experimental Ecology Interaction Group, German Centre for Integrative Biodiversity Research (iDiv), Halle-Jena-Leipzig, Germany (invited talk)
- 2017 **Simon J.** Woody plants: interactions and resource allocation strategies. University of Konstanz, Department of Biology, Ecology group seminar, Konstanz, Germany
- 2017 **Simon J.** Woody PIRATS. University of Konstanz, Department of Biology, Plant Physiology & Biochemistry group seminar, Konstanz, Germany
- 2017 **Simon J.** Plant interactions in the rhizosphere – Regulation of nitrogen acquisition. The Swedish OIKOS Meeting 2017, Lund, Sweden
- 2016 **Simon J.** The battle for nitrogen in the rhizosphere. 46th Annual Meeting of the Ecological Society of Germany, Austria and Switzerland, Marburg, Germany
- 2016 **Simon J.** Rhizosphere interactions – the battle for nitrogen? SLU, Umea, Sweden (invited talk)
- 2014 **Simon J.** The dark and evil side of plants. “Antrittsvorlesung”, University of Konstanz, Germany
- 2014 **Simon J.** Plant interactions – Regulation of nitrogen acquisition in temperate forest ecosystems. University of Queensland, Brisbane, Australia
- 2014 **Simon J.** Competition and environment regulate plant nitrogen acquisition. University of Wageningen, Wageningen, The Netherlands (invited talk)
- 2014 **Simon J.** Plant nitrogen acquisition is regulated by competition and environmental factors. Forschungszentrum Jülich, Jülich, Germany
- 2014 **Simon J.** Regulation of plant nitrogen acquisition in woody species: competition, avoidance, or facilitation? University of Freiburg, Freiburg, Germany (invited talk, interview for W3-professorship “Ecosystem Physiology”)
- 2014 **Simon J.** Cyanogenic glycosides as defence strategy of plants against herbivory. University of Konstanz, Konstanz, Germany
- 2013 **Simon J.** Plant interactions – Competition, avoidance or facilitation for growth-limiting nitrogen? University of Cologne, Cologne, Germany (invited talk, interview for W2-professorship “Botany”)

Oral Presentations (cont.)

- 2013 **Simon J.** Competition for nitrogen – Consequences of environmental factors on the strategies of plants. TU Darmstadt, Darmstadt, Germany (invited talk, interview for W2-professorship “Chemical Plant Ecology”)
- 2013 **Simon J.**, van Kleunen M. Plant invasions – Competitive advantage due to higher N use efficiencies or optimised N acquisition strategies? Intecol, London, UK
- 2013 **Simon J.** P acquisition of plants in semi-arid environments. Symposium “Agricultural and forestry strategies for regeneration of degraded soils on the loess plateau” (AgriFORGE), Yangling, China (invited talk)
- 2012 **Simon J.**, Dong F., Rienks M., Rennenberg H. Plant-microbial interactions controlling nitrogen partitioning in beech forests. 42nd Annual Meeting of the Ecological Society of Germany, Austria and Switzerland, Lüneburg, Germany
- 2011 **Simon J.**, Rennenberg H. Competition for nitrogen between adult European beech and its offspring is reduced by avoidance strategy, British Ecological Society (BES) Annual Symposium 2011: Forests and Global Change, Cambridge, UK
- 2009 **Simon J.**, Dannenmann M., Kögel-Knabner I., Mayer H., Polle A., Schloter M., Rennenberg H. Significance of N uptake in European beech (*Fagus sylvatica* L.) for the competition for N in the rhizosphere, 10th International Congress of Ecology, Brisbane, Australia
- 2007 **Simon J.** Girdling of beech trees – Effects on N uptake and N metabolism in roots, 4th International Symposium on Physiological Processes in Roots of Woody Plants, Bangor, Wales, UK

Supervision

Postgraduates

- (8) Consequences of competition and abiotic stress on the acquisition and internal allocation of nitrogen in temperate woody species (PhD student from Germany, start 07/2017, University of Konstanz)
- (7) Belowground functional traits of plants as drivers of biodiversity and ecosystem functions (PhD student from France, start 04/2017, co-supervision, University of Konstanz)
- (6) Competition for nitrogen in (sub-) tropical and temperate forest ecosystems. (PhD student from Venezuela, start 10/2014, University of Konstanz)
- (5) Influence of water availability and temperature on the competition for nitrogen between European beech and soil microorganisms. (PhD student from Bosnia-Herzegovina, start 07/2010, co-supervision, University of Freiburg)
- (4) Influence of water and nitrogen availability on the competition between European beech and sycamore maple for soil nitrogen sources (PhD student from China, 03/2010-07/2015, co-supervision, University of Freiburg)
- (3) The significance of NO and CO₂ as signal substances in the competition for nitrogen between beech and soil microorganisms (PhD student from China, 09/2009-07/2015, co-supervision, University of Freiburg)

Supervision (cont.)

Postgraduates (cont.)

- (2) Influences of air warming and / or drought on different oak species and provenances (PhD student from China, 08/2009-02/2013, co-supervision, University of Freiburg)
- (1) Effects of drought stress on nitrogen uptake and metabolisms in European beech. (PhD student from China, 01/2008-02/2013, co-supervision, University of Freiburg)

Undergraduates

- (19) Consequences of competition and nitrogen availability on nitrogen fluxes in the rhizosphere (BSc, 05/2018-08/2018, University of Konstanz)
- (18) Acquisition of inorganic and organic nitrogen in temperate tree species with varying soil nitrogen availability in response to competition (BSc, 05/2018-08/2018, University of Konstanz)
- (17) Consequences of competition on the acquisition of inorganic and organic nitrogen in temperate tree species with varying soil nitrogen availability (BSc, 05/2018-08/2018, University of Konstanz)
- (16) N pools in leaves of temperate woody species (BSc, 05/2017-07/2017, University of Konstanz)
- (15) Primary and secondary metabolites in leaf litter of different species (BSc, 05/2016-08/2016, University of Konstanz)
- (14) Drought influences on the competition between *Fagus sylvatica* and *Quercus petraea*. (BSc, 05/2014-09/2014, University of Konstanz)
- (13) Comparison of organic and inorganic nitrogen acquisition of potentially invasive and non-invasive plant species. (BSc, 04/2014-06/2014, University of Freiburg)
- (12) Consequences of herbivory on the nutritional status and chemical defence in willow and birch. (BSc, 06/2013-09/2013, University of Freiburg)
- (11) Consequences of herbivory on the nutritional status and chemical defence in poplar. (BSc, 04/2013-07/2013, University of Freiburg)
- (10) Consequences of abiotic stress on N uptake in plants. (BSc, 03/2013-06/2013, University of Freiburg)
- (9) Influence of drought on four beech (*Fagus sylvatica* L.) provenances. (Erasmus, 07/2012-03/2013, co-supervision, University of Freiburg)
- (8) Influence of drought on different geographical beech (*Fagus sylvatica* L.) provenances. (BSc, 06/2012-09/2012, University of Freiburg)
- (7) N uptake in degraded forest ecosystems in the Qinling Mountains, China. (BSc, 05/2012-07/2012, University of Freiburg)
- (6) Do high levels of phenolic compounds protect trees against herbivory by the beaver? (BSc, 11/2011-02/2012, University of Freiburg)
- (5) The significance of NO as signal substance in the competition for nitrogen between pine (*Pinus sylvestris*) and soil microorganisms. (BSc, 05/2011-08/2011, University of Freiburg)
- (4) Effects of light availability on the competition between European beech (*Fagus sylvatica* L.) and sycamore maple (*Acer pseudoplatanus* L.) for growth patterns and inorganic and organic N uptake. (Diploma, 10/2010-03/2011, co-supervision, University of Freiburg)

Supervision (cont.)

Undergraduates (cont.)

- (3) Effects of reduced water supply and competition on nitrogen uptake and partitioning in European beech (*Fagus sylvatica* L.) seedlings. (Diploma, 11/2009-07/2010, University of Freiburg)
- (2) Experimental analysis of N uptake by *Cenococcum geophilum* Fr. using stable isotopes. (Diploma, 10/2008-07/2009, co-supervision, University of Freiburg)
- (1) Competition between European beech (*Fagus sylvatica* L.) and sycamore maple (*Acer pseudoplatanus* L.) for inorganic and organic N sources. (BSc, 08/2008- 12/2008, co-supervision, University of Freiburg)