

# Rainer Matyssek

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## Curriculum Vitae

### **Prof. Dr. Rainer Matyssek**

Location and date of birth: Bayreuth /Germany, Oct. 13,1954  
Nationality: German  
Address: Chair of Ecophysiology of Plants  
Department of Ecology and Ecosystem Management  
Technische Universität München  
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#### Education and Professional Training:

1961-1965 Primary school „Sankt Georgen“, Bayreuth  
1965-1974 Gymnasium „Christian-Ernestinum“ (GCE), Bayreuth  
1975 Study of Educational Sciences (one sem.), University of Erlangen-Nürnberg  
1975-1981 Studium of Biology /Diploma at University of Bayreuth  
1980-1981 Diploma thesis in Experimental Plant Ecology/Ecophysiology, University of Bayreuth  
1981-1985 Ph.D. thesis in Experimental Plant Ecology/Ecophysiology at Chair of Plant Ecology I, University of Bayreuth.  
1993 Habilitation in Botany, University of Basel, Switzerland

#### Degrees:

1974 Baccalaureate („Abitur“ = general qualification for university entrance)  
1977 Pre-Diploma in Biology, University Bayreuth /Germany  
1981 Diploma in Biology, University of Bayreuth  
1985 Dr. rer. nat. (Ph.D.), University of Bayreuth, supervisor: Prof. Dr. E.-D.

#### Schulze

1993 Habilitation in Botany, University of Basel, Switzerland (mentor: Prof. Dr. C. Körner)

#### Academic Positions:

1982-1985 full-time scientific assistant („HWHK“) at Chair of Plant Ecology I, University of Bayreuth  
1985-1987 Research associate („Post-Doc“) at Dept. of Crop & Soil Sciences, Texas A&M University, in College Station /Texas USA, in team of Prof. Dr. J.S. Boyer  
1987-1991 full-time scientific assistant („Adjunkt“) in team of Dr. Theo Keller, at Swiss Federal Institute for Forest, Snow and Landscape Research (WSL), Zurich-Birmensdorf, Switzerland  
1992-1994 Research group leader („Bioindications“) , at Swiss Federal Institute for Forest, Snow and Landscape Research (WSL), Zurich-Birmensdorf, Switzerland  
1992-1994 Lecturer („Privat-Dozent“) at University of Basel, Switzerland

- 1994-1999 Full-time professor („*Ordinarius*“) at „*Ludwig-Maximilians Universität*“ München, head of Chair of Forest Botany
- 1999- Full-time professor („*Ordinarius*“) at „*Technische Universität München*“, head of Chair of Ecophysiology of Plants, located at Life Science Centre Weihenstephan (WZW), Freising

Awards and distinguished academic functions:

- 1975-1980 Scholarship holder of „*Bayerische Begabtenförderung*“
- 1980-1982 Scholarship holder of „*Studienstiftung des Deutschen Volkes*“ (until employment as „*HWHK*“, see above)
- 1985-1987 Fulbright Fellow, for research stay in USA (see above)
- 1999-2000 Guest Professor at University of Salzburg, Austria (Lecturing on Plant Ecophysiology)
- 1998-2010 Speaker/Coordinator of Collaborative Research Centre (SFB 607) „*Growth and Parasite Defense – Competition for Resources in Economic Plants from Agronomy and Forestry*“ (funded through Deutsche Forschungsgemeinschaft, DFG)
- 2000-2003 Vice-dean („*Prodekan*“) of Life Science Centre Weihenstephan (WZW), Freising, at „*Technische Universität München*“
- 2002-2006 Coordinator of the international research project CASIROZ („*The Carbon Sink Strength of Beech in a Changing Environment: Experimental Risk Assessment of Mitigation by Chronic Ozone Impact*“), funded through European Commission - Research Directorate-General, Environment Programme, „Natural Resources Management and Services“ (EVK2-2002-00165, Ecosystem Vulnerability).
- 2007 Heinz-Maier-Leibnitz Medal of „*Technische Universität München*“ for distinguished scientific achievements
- 2010, 2013 Invited guest lectures at Universities of Sapporo and Tokyo, Japan
- 2012 Invited guest lectures at Universities of Sao Paulo (Piracicaba, Campinas), Ouro Preto (Minas Gerais) and Rio de Janeiro, Brazil
- 2013 Invited guest lectures at University of Kaunas, Lithuania
- 2013 Invited guest lecture at University of Tartu, Estonia
- 2013 Elected member of „*The National Academy of Sciences, Leopoldina*“ (Nationale Akademie für Naturforscher, Leopoldina /Germany)
- 2014 Elected corresponding member of the „*Académie d'Agriculture de France*“ (Paris, France)

**Collaborations in commissions, member in scientific societies**

- 1993-1994 National coordinator in Switzerland of the EUREKA-EUROSILVA Program „*European Research Cooperation in Forest Tree Physiology*“;
- 1995-2000 National coordinator in Germany for COST Action E12 Eurosilva „*European Initiative on Tree-Physiological Research*“, Working group leader (WG 3) „*Biotic and Abiotic Interactions*“
- 2002- Member of „*Deutsche Gesellschaft für Ökologie*“ (DfÖ)
- 2007- invited member of US-American working group NE-1030 on „*Characterization and Mechanisms of Plant Responses to Ozone in the U.S.*“
- 2008- Leader of Work Party 7.01.02 „*Mechanisms of action and indicator development*“ within IUFRO Division 7.01 „*Forest Health, Impact of Air Pollution and Climate Change on Forest Ecosystems*“ (IUFRO = International Union of Forest Research Organizations)

- 2009-2013 Leader of Working Group (WG2) “*Scientific gaps and modelling*” within COST Action FP0903 “*Climate Change and Forest Mitigation and Adaptation in a Polluted Environment*” (MAFor), national coordinator of Germany; funded through European Commission
- 2009- Chairman of „*Münchener Arbeitsgemeinschaft für Biosystem-Forschung*“ (MABIF) at „*Helmholtz Zentrum München*“, elected member since 1994.
- 2010- appointed member to Working Group NA 134-03-03-02 UA “*Wirkungen von Luftverunreinigungen auf die Vegetation*” (Effects of air pollution on vegetation) of VDI (Verein Deutscher Ingenieure e.V. Kommission Reinhaltung der Luft im VDI und DIN - Normenausschuss KRdL = Association of German Engineers).

### **Collaboration in Editorial Boards:**

#### **Co-editor of refereed scientific journals and book series:**

- 1997- “*Trees – Structure and Function*”
- 2005- “*European Journal of Forest Research*”
- 2014- Subject Editor “*Ecology*” of Springer book series “*Progress In Botany*”

#### **Editor of special issues of refereed scientific journals and of refereed book projects:**

Huttunen S, Heikelä H, Bucher J-B, Sundberg B, Jarvis PG, **Matyssek R**, eds. (2001), *Trends in European Forest Tree Physiological Research*, Kluwer, The Netherlands, pp. 262

**Matyssek R**, Schnyder H, Munch J-C, Osswald W, Pretzsch H, Treutter D, eds. (2005) Special Issue “*Mechanisms in Resource Allocation*”, *Plant Biology* 7, Thieme Verlag Stuttgart, pp. 557-744

**Matyssek R**, ed. (2007) Special Issue “*Ozone sensitivity of adult forest trees*”. *Plant Biology* 9, Thieme Verlag Stuttgart, pp. 163-356

**Matyssek R**, Bernhofer C, Huwe B, eds. (2009) Special Theme “*High-altitude water budgets: ecological and hydrological forest research in view of landscape modelling*”. *Eur J Forest Res* 128: 575-631

Schlöter M, **Matyssek R**, eds. (2009): Special Issue “*Tuning growth versus defence–belowground interactions and plant resource allocation*”. *Plant and Soil* 323:1-141

Schaub M, **Matyssek R**, Wieser G, eds. (2010) *Advances of air pollution science: from forest decline to multiple-stress effects on forest ecosystem services*. *Environmental Pollution* 158: 1985-2334.

Percy K., King J., **Matyssek R**, Karnosky D, eds. (2010) *Facing the Future: Evidence from Joint Aspen FACE, SoyFACE and SFB 607 Meeting*. *Environmental Pollution* 158:953-1104.

**Matyssek R**, Schaub M, Wieser G, eds. (2010) *Air pollution and climate change effects on forest ecosystems: new evidence*. *Eur J Forest Res* 129: 417-497.

Paoletti E, Tuovinen J-P, Clarke N, Matteucci G, **Matyssek R**, Wieser G, Fischer R, Cudlin P, Potocic N, eds. (2011) *Research, monitoring and modelling in the study of climate change and air pollution impacts on forest ecosystems*. *iForest-Biogeosciences and Forestry* 4:160-161

**Matyssek R**, Schnyder H, Osswald W, Ernst D, Munch J C, Pretzsch H (eds., 2012): *Growth and Defence in Plants – Resource Allocation at Multiple Scales*. *Ecological Studies* 220, Springer, pp. 470.

**Matyssek R**, Lüttge U, Rennenberg H, eds. (2013) *The Alternatives Growth and Defence: Resource Allocation at Multiple Scales in Plants*. Nova Acta Leopoldina, pp. 369

Lüttge U, **Matyssek R**, Priesack E, eds. (2013) *Virtual Issue, Trees: Empirism and Modeling*

**Matyssek R**, Clarke N, Cudlin P, Mikkelsen TN, Tuovinen J-P, Wieser G, Paoletti E, eds. (2013) *Climate change, air pollution and global challenges: understanding and perspectives from forest research*. *Developments in Environmental Science* 13, Elsevier, pp. 622

#### **Author of textbooks:**

Willert von D, **Matyssek R**, Herppich W (1995) „*Experimentelle Pflanzenökologie, Grundlagen und Anwendungen*“ (= *Experimental Plant Ecology, Fundamentals and Applications*). Georg-Thieme-Verlag, Stuttgart, pp. 344.

**Matyssek R**, Fromm J, Rennenberg H, Roloff A (2010) „*Biologie der Bäume – von der Zelle zur globalen Ebene*“ (= *Biology of Trees – from Cell to Global Scale*). Ulmer, Stuttgart, pp. 349.

#### **Publications:**

- In refereed scientific journals and refereed books: 213
- other: 57

**Status: May 2015**