CURRICULUM VITAE

Dr. Peter Hans Wilhelm Biedermann

Head of the Emmy Noether Research Group Insect-Fungus Symbioses
Julius-Maximilians University Würzburg
Zoology 3, Biocenter, Am Hubland, 97074 Würzburg, Germany

Date of birth June 21st, 1981 (in Leoben, Austria)
Married to Tabea Turrini-Biedermann

-- AT A GLANCE --

RESEARCH INTERESTS

- Plant-insect-microbe interactions, mainly of bark beetles in forest ecosystems
- Fungal plant pathogens and their transmission by insects
- Biotic interactions of native and invasive insects
- Darwinian agriculture: Learning from farming insects to improve human agriculture
- Evolutionary ecology of mutualisms and social behaviour in animals, mainly social insects

MAJOR ACHIEVEMENTS

2018 Discovery of screening by alcohol in bark beetle-fungus symbioses (published in PNAS)
2017 Awarded with a DFG Emmy Noether independent research group (grant volume 1.4 Mill. €)
2016 Discovery of bacteria that help farming beetles to protect their fungus cultivars against pathogens
2016 Establishment of a laboratory rearing substrate for the coffee berry borer, the major pest of coffee
2015 Awarded with an EU Marie Curie postdoc grant (i.a.) at the MPI for Chemical Ecology
2015 First successful selection experiment for higher social behaviour in an animal
2013 Klaus Tschira Award for excellent science communication
2012 Dr. L. Zwillenberg Award for the best Ph.D. thesis in the Life Sciences at the University of Bern (CH)
2011 Discovery of division of labour in beetles (published in PNAS)
2009 Establishment of a laboratory rearing substrate for fungus-farming bark beetles

PERSONAL SPECIFICITIES

- Passionate field researcher with a broad interest in ecology and evolution of species interactions
- Expert on plant-insect-fungus interactions and in particular insect-fungus mutualisms
- >10-year basic and applied research in lab and field with various herbivorous (pest) insects
- Expert in experimental design and statistical analyses
- Transdisciplinary training in forest ecology, entomology, mycology and molecular biology
- Trained at several research institutions in Europe and the US
- Application of state-of-the-art methods from chemical ecology and molecular biology (i.e., -omics)
- Extensive experience in raising of third-party funds (>2 Mill €; career almost completely self-funded)
- Several years of leadership experience (current research group with 5 members)
- Extensive experience in publishing (>25 articles) and communicating (>80 presentations) research
- Passionate teacher and popular science communicator

RESEARCH POSTS (WITH PROJECTS)

EMMY NOETHER RESEARCH GROUP (FROM 7/2017) – funded by the German Research Foundation (DFG)
Julius-Maximilians-Universität Würzburg, Institut für Tierökologie und Tropenbiologie, Würzburg, DE

Projects (selected)
- Ecology and evolution of cooperative fungiculture in ambrosia beetles.
  Major focus of research in my group
- Darwinian agriculture: Comparing agriculture of insects and humans
- Chemical ecology of bark beetles and their fungal symbionts.
  Collaboration with Prof. T. Schmitt, Univ. Würzburg, DE
- Role of biotic factors in population dynamics of the spruce bark beetle *Ips typographus*.
  Collaboration with Prof. J. Müller, National Park Bavarian Forest, DE
- Visual orientation of native and invasive forest insects – development of improved traps.
  Collaboration with Dr. J. Spähte, Univ. Würzburg, DE
  Dr. A. Hammerbacher & Prof. B. Slippers, Univ. of Pretoria, SA

VISITING SCIENTIST (7-8/2017) – funded by the US-Department of Agriculture (USDA)
USDA-Agricultural Research Service, Sustainable Agricultural Systems Lab, Beltsville/MD, USA

Project
- Development of pest management technologies and strategies to control the coffee berry borer
  Collaboration with Dr. F. Vega, USDA-ARS, Beltsville, USA

Acquired skills
- Laboratory rearing and behaviour of the coffee berry borer, the major pest of coffee worlwide
- Establishment of a long-term collaboration with the USDA-ARS

MARIE CURIE RESEARCH FELLOW (3/2015 – 6/2017) - funded by the European Union
Max-Planck Institute for Chemical Ecology, Research Group Insect Symbiosis, Jena, DE

Projects (selected)
- *Understanding pathogen defence and fertilization of fungal cultivars in fungus-farming beetles.*
  Collaboration with Prof. M. Kaltenpoth, Univ. Mainz, DE
- *Black poplar, its fungal endophytes and their effects on aphids and other herbivorous insects.*
  Collaboration with Dr. S. Unsicker, MPI-CE Jena, DE
- *Behavioural responses of insects to fungal volatiles.*
  Collaboration with Dr. G. Holighaus, Univ. Göttingen, DE

Acquired skills (selected)
- Behavioural and olfactory assays with insects
- Extraction of microbial secondary compounds and bioactivity assays
- Genomics of bacteria and fungi, plus data handling

ADVANCED SNF POST-DOC FELLOW (1/2014-2/15) - funded by the Swiss National Science Fund (SNF)
Max-Planck Institute for Chemical Ecology, Research Group Insect Symbiosis, Jena, DE

Projects (selected)
- *Characterizing fungal crop rotation in nests of ambrosia beetles.*
- *Review on defensive bacterial and fungal symbionts in animals.*
  Collaborations with Prof. M. Kaltenpoth, MPI-CE Jena, DE
- *Fungal endophytes of thistles and their interaction with tortoise beetle herbivores.*
  Collaboration with Prof. D. Aanen and M. Wisselink, Wageningen Univ., NL

Acquired skills (selected)
- Culturing of fungal pathogens and endosymbionts from plants
- Quantification of fungal and bacterial communities by real-time PCR (qPCR)
- Defensive symbionts in animals and their chemistry

VISITING SCIENTIST (10-12/2013) - funded by the Swiss National Science Fund (SNF)
Department of Plant Sciences, Laboratory of Genetics, Wageningen University, NL

Project
- *Population genetics of fungal cultivars of farming beetles.*
  Collaboration with Prof. D. Aanen, Wageningen Univ., NL

Acquired skills
- Methods in population genetics
- International experience in a mycology lab

PROSPECTIVE SNF POST-DOC FELLOW (9/2012-9/13) - funded by the Swiss National Science Fund (SNF)
Max-Planck Institute for Chemical Ecology, Research Group Insect Symbiosis, Jena, DE

Projects (selected)
- *Characterization of bacteria and fungi associated with ambrosia beetles.* Collaboration with Prof. M. Kaltenpoth, MPI-CE Jena, DE
- *Fungal and bacterial symbionts of parasitic bark beetles.* Collaboration with Prof. J.C. Gregoire and L. Dohet, Free Univ. Brussels, BE

Acquired skills (selected)
- Molecular techniques (PCR, primer design, FISH)
- Characterization of fungal and bacterial communities using next-generation sequencing
- Supervision of Ph.D., M.Sc. and B.Sc. students

POST-DOCTORAL RESEARCHER (4-8/2012)
Institute for Ecology and Evolution, University of Bern, CH

Project
- *Experimental evolution of ambrosia beetles.* Collaboration with Prof. M. Taborsky, Univ. Bern, CH

Acq. skill
- Artificial selection of traits in insects and their symbionts

VISITING SCIENTIST (4-8/2009) - funded by the US Great Lakes Bioenergy Research Centre
Department of Bacteriology, University of Wisconsin, Madison, USA

Project
- *Comparing the microbiomes of fungus-farming ants, termites and beetles.* Collaboration with Prof. C. Currie, Univ. Wisconsin, Madison, USA

Acq. skill
- International experience in a bacteriology lab

PRE-DOCTORAL ROCHE RESEARCH FELLOW (1-12/2008) - funded by Roche Research Foundation
Institute for Ecology and Evolution, University of Bern, CH

Project
- *Social behaviour of fungus-farming beetles.* Supervised by Prof. M. Taborsky, Univ. Bern, CH

Acquired skills
- Rearing of different beetle species in the laboratory
- Behavioural experiments with beetles and statistical analyses

VISITING SCIENTIST (8-12/2007) - funded by the US-Department of Agriculture (USDA)
USDA Forest Service, Southern Research Station, Pineville/LA, USA

Project
- *Characterizing fungal communities of bark and ambrosia beetles* Collaboration with Dr. K. Klepzig, USDA Forest Service, Pineville, USA

Acquired skills
- Different culturing techniques of fungi and bacteria from beetles and their host trees
- Interaction assays between microbes

PRINCIPAL INVESTIGATOR (3-7/2003) - funded by the German Exchange Service (DAAD)
Khan Khentey Reserve, National University of Ulan Bator, Mongolia

Project
- *Breeding-ecology of Sibirian warblers.* Collaboration with Prof. M. Mühlenberg, Univ. Göttingen, DE

Acq. skill
- Extensive field work under extreme conditions

ACADEMIC EDUCATION

PH.D. IN ECOLOGY AND EVOLUTION (1/2009-3/12) - funded by the Austrian Academy of Sciences (ÖAW)

Institute for Ecology and Evolution, University of Bern, CH

Project - *Evolution of cooperative behaviour and fungus farming in ambrosia beetles.*
Supervised by Prof. M. Taborsky, Univ. Bern, CH

Awards - Ph.D. awarded with distinction ("summa cum laude")
- Prize for the best Ph.D.-thesis in the Life-Sciences at the University of Bern

Acquired skills (selected)
- Behavioural observations and experiments with insects in the lab and field
- Monitoring (trapping) of insect populations in the field
- Characterizing and quantifying enzymatic profiles of insects and fungi
- Supervision of M.Sc. and B.Sc. projects and student internships in Behavioural Ecology

M.SC. IN ECOLOGY AND EVOLUTION (4/2005-7/07)

Institute for Ecology and Evolution, University of Bern, CH

Project - *Social behaviour in sib-mating, fungus-farming beetles.*
Supervised by Prof. M. Taborsky, Univ. Bern, CH

Awards - M.Sc. awarded with distinction ("summa cum laude")
- Award for best presentation at the meeting of the "Intern. Union for the Study of Social Insects"

Acquired skills
- Development of a laboratory rearing and observation technique for farming beetles
- Intense training in experimental design and statistics

B.SC. IN ETHOLOGY AND NEUROBIOLOGY (9/2001-1/05)

Institute for Zoology, Karl-Franzens University Graz, A

Projects (selected)
- *Predator-prey interactions between honeybees and predatory birds.*
Supervised by Prof. K. Crailsheim, Univ. Graz, A
- *Breeding-ecology of Sibirian warblers in Mongolia.*
Supervised by Prof. M. Mühlenberg, Univ. Ulaanbaatar, Mongolia
- *Neurophysiology and behaviour of bush crickets in relation to predation by bats.*
Supervised by Prof. H. Römer, Smithsonian Tropical Research Institute, BCI, Panama

Acquired skills (selected)
- Behavioural studies on honeybees, crickets, bats and birds
- Mapping of honeybee drone congregation areas
- Field work in tropical and boreal forests
- International experiences in different countries and labs

SCIENTIFIC AWARDS

STEP AWARD (2016) USD 2'100.-
by the Entomological Society of America, USA
Award for Early Professionals to be part of the ICE 2016.

KLAUS TSCHIRA PREIS (2013) EUR 5'000.-
by the Klaus Tschira Foundation, DE
Award for excellent science communication.

FÖRDERPREIS DER INGRID WEISS / HORST WIEHE STIFTUNG (2013) EUR 3'000.-
by the German Society of General and Applied Entomology, DE
Award for outstanding scientific achievements.

FÖRDERPREIS DER ÖSTERREICHISCHEN ENTOMOLOGISCHEN GESELLSCHAFT (2012) EUR 500.-
by the Austrian Entomological Society, A
Award for scientific achievements in entomology.

DR. LUTZ ZWILLENBERG PRIZE (2012) EUR 10'000.-
by the University of Bern, CH
Award for the best PhD-thesis in the Life-Sciences (Biology and Medicine) at the University in Bern.

AWARD FOR ACHIEVEMENTS IN BIOSCIENCES (2010) EUR 100.-
by Oxford University Press, UK
Award for scientific achievements.

HEINRICH KUTTER PRIZE (2009) EUR 200.-
by the International Union for the Study of Social Insects
Award for the best presentation at the IUSSI meeting.

THIRD-PARTY FUNDS & FELLOWSHIPS

DBU PROJECT (2018) EUR 10'000.-
Deutsche Bundesstiftung Umwelt (DBU), Osnabrück, DE
Project *An experiment to promote beta-diversity and ecosystem services in managed forests.*
(Project head: Prof. J. Müller, NP Bavarian Forest)

USDA COOPERATIVE RESEARCH GRANT (2018) USD 5'000.-
US-Department of Agriculture, Washington, USA
Project *Behaviour and pathogen defence of the coffee berry borer.*

DFG MAJOR INSTRUMENTATION PROGRAMME FOR AN ILLUMINA MISEQ (2017) EUR 150'000.-
Deutsche Forschungsgemeinschaft (DFG), Bonn, DE
Project *High-throughput sequencing of plant, insect and microbial samples*
(Collaborative grant with Prof. I. Steffan-Dewenter & Dr. A. Keller, Univ. Würzburg)

DFG EMMY NOETHER RESEARCH GROUP (2017-2022) EUR 1'463'000.-
Deutsche Forschungsgemeinschaft (DFG), Bonn, DE
Project *Ecology and evolution of fungus farming by ambrosia beetles*.

MARIE CURIE INTERNATIONAL EXCHANGE FELLOWSHIP (2015-17) EUR 165'000.-
European Commission, Brussels, BE
Project *Mechanisms of fungus farming in beetles*.

SNF POSTDOC FELLOWSHIP FOR ADVANCED RESEARCHERS (2014-15) EUR 80'000.-
Swiss National Science Foundation (SNF), Bern, CH
Project *Mutualistic microbes, their abundances and functions within nests of farming beetles*.

SNF POSTDOC FELLOWSHIP FOR PROSPECTIVE RESEARCHERS (2012-14) EUR 65'000.-
Swiss National Science Foundation (SNF), Bern, CH
Project *Microbial symbionts and their functions in fungus-culturing beetles*.

DOC PH.D. FELLOWSHIP (2010-11) EUR 60'000.-
Austrian Academy of Science (ÖAW), Vienna, A
Project *Evolution of cooperation in ambrosia beetles*.

ROCHE RESEARCH FELLOWSHIP (2009) EUR 30'000.-
F. Hoffmann-La Roche Research Foundation, Basel, CH
Project *Evolution of social behaviour and fungus farming in beetles.*

USDA COOPERATIVE RESEARCH GRANT (2007) USD 10'000.-
US-Department of Agriculture, Washington, USA
Project *Fungal symbionts of fungus-farming beetles.*

>10 OTHER RESEARCH OR TRAVEL GRANTS (2007-PRESENT) EUR >8'000.-
IUSSI, Univ. Bern, Swiss Zool. Soc., CUSO, Etholog. Ges., DGaaE, GLBRC, ESA.

EDUCATIONAL COMPETENCES

TEACHING ACTIVITIES

Bachelor level	Jahr
2 × *Physiology of rats*, practical course (with Prof. J.-P. Airoldi), Univ. of Bern, CH	2009-10
2 × *Identification of beetles*, practical course (with Dr. F. Menzel), Univ. of Bern, CH	2010-11
1 × *Native fauna*, Excursion (with Dr. S. Leonhardt), Univ. of Würzburg, DE	2018
1 × *Evolutionary Ecology*, 2-week course (with Dr. T. Hovestadt), Univ. of Würzburg, DE	2018
Master level	
1 × *Behavioural Ecology*, advanced practical course (6-week block course; teaching and supervising student projects with Prof. M. Taborsky et al.), Univ. of Bern, CH	2010
3 × *Behavioural Ecology*, practical course (4-week block course; teaching and supervising student projects with Prof. M. Taborsky et al.), Univ. of Bern, CH	2007-11
5 × *Behavioural Ecology*, seminar and journal club (with Prof. M. Taborsky et al.)	2008-12
2 × *Interactions between Insects & Mikroorganisms*, lecture (4h), Univ. of Jena, DE (see evaluati	2015-16
1 × *Evolutionary Biology*, lecture (2h), Univ. of Jena, DE	2016
1 × *Animal Ecology*, lecture (2h), Univ. of Würzburg, DE	2017-18

SUPERVISION OF STUDENTS

Independent Student Research Projects

2015 *Induction of fungal fruiting by ambrosia beetles* (P. Baumann)
Fungal symbionts of galling aphids (D. Berthold)
Gallery structures of ambrosia beetles (P. Schmidt)

2010 *Analysis of the spatial attack pattern by Xyleborinus saxesenii* (T. Emmenegger & S. Stucki)

2009 *Cooperative behaviour in the ambrosia beetle Xyleborinus saxesenii* (M. Würgler & M. Zeller)

2008 *The flight dynamics and seasonal abundance of two fungus-growing ambrosia beetles* (A. Golizadeh)

2007 *The influence of the observation techniques on ambrosia beetle behaviour* (C. Arnold & S. Knecht)

Bachelor Theses

2016 *Interactions between Pseudomonas spp. and ambrosia fungi* (P. Baumann)

2013 *Importance of blocking behaviour in the ambrosia beetle X. saxesenii* (J. A. Nuotcla)

2011 *Dispersal of different age groups in the ambrosia beetle X. saxesenii* (A. Moser)

2010 *Dispersal behaviour in the ambrosia beetle species X. saxesenii* (M. Würgler)

Master Theses

pending *From forest management to bark beetle-fungus symbioses* (M. Benkert)

2018 *Bat response to forest structure and prey activity in beech forests* (V. Zieschak) – 2nd assessor

2015 *Genetic variation in fungal symbionts from different geographical locations of two Xyleborine ambrosia beetles* (L. J. J. van de Peppel) – co-supervised by Prof. D. Aanen

2015 *Diversity and role of fungal symbionts in tortoise beetles* (M. Wisselink)

2014 *Effects of fungi and behaviour of X. saxesenii* (J. A. Nuotcla)

2012 *Social effects of larval manipulations in X. saxesenii* (M. Würgler)

2011 *The microbial community associated with the ambrosia beetle X. saxesenii* (W. Fabig) – co-supervised by Prof. M. Kaltenpoth

2008 *Effects of colony composition on cooperative behaviour in X. saxesenii* (A. Meister)

Ph.D. Theses

pending *Ecology and evolution of symbiont management in ambrosia beetles* (J. Diehl)

Ecology and evolution of symbiotic microbial communities in ambrosia beetles (M. Lehenberger)

Social evolution in wood-boring weevils (M. Khadraoui)

2016 *Bacterial symbionts of Dendroctonus bark beetles* (L. Dohet) – co-supervised by Prof. J.-C. Gregoire

PH.D.-COMMITTEE MEMBERSHIPS

2018 *Epichloe grass endophytes and their influence on herbivores* (V. Vikuk, Univ. of Würzburg) - Ph.D. committee member

EDITORIAL, REVIEWING & JURY ACTIVITIES

Overview at PUBLONS: publons.com/a/1174275/

EDITORIAL ACTIVITY

2018-19 - Guest editor for ***Frontiers in Ecology & Evolution*** - Special Issue: Social management of microbes.

2017-18 - Guest editor for ***Fungal Ecology*** (IF: 3.2) - Special Issue: From antagonism to mutualism: the chemical basics of animal-fungus interactions.

Since 2018 - Editor for ***Frontiers in Forestry***

Since 2015 - Editor for ***Fungal Ecology*** (IF: 3.2) - Section: Insect-Arthropod Interactions
- Editor for ***Frontiers in Ecology & Evolution***

JOURNAL REFEREE ACTIVITY

General Journals - The American Naturalist, - Current Biology, - Frontiers in Zoology, - PlosONE, - Proceedings of the National Academy of Science USA (PNAS)

Ecology & Evolution - Ardea, - Behavioral Ecology and Sociobiology, - Chemoecology, - Ecology and Evolution, - Ethology, - Forest Ecology and Management, - Journal of Applied Ecology, - Journal of Chemical Ecology, - Journal of Ethology, - Journal of Evolutionary Biology, - Molecular Ecology

Entomology - Agricultural and Forest Entomology, - Arthropod Structure & Development, - Biological Control, - Current Opinion in Insect Science, - Environmental Entomology, - Florida Entomologist, - Insect Conservation and Diversity, - Insects, - Journal of Insect Science

Microbiology - Environmental Microbiology Reports, - Frontiers in Microbiology, - Fungal Ecology, - Journal of Basic Microbiology, - Journal of Invertebrate Pathology, - Microbes & Environments, - Microbial Ecology, - Symbiosis, - The ISME Journal

APPLICATION REFEREE ACTIVITY

Since 2017 - Reviewer of Ph.D. applications, Graduate School of Life Sciences, Univ. of Würzburg, DE

JURY FOR PUBLIC SCIENCE EVENTS

Since 2017 - Member of Jury for „Klartext“, Award for Written Science Communication, Heidelberg, DE

2015 - Member of Jury for “Jugend Präsentiert”, Award for Oral Science Communication, Heidelberg

CONFERENCE & SYMPOSIA ORGANISATION

WORKSHOP "POPULATION DYNAMICS OF THE SPRUCE BARK BEETLE *IPS TYPOGRAPHUS*" (3/2017)
National Park Bavarian Forest, Grafenau, DE.
Co-organizer with C. Bässler and J. Müller.

SYMPOSIUM ON "*BARK AND AMBROSIA BEETLES: BIOLOGY, ECOLOGY, AND MANAGEMENT*" (9/2016)
International Congress of Entomology, Orlando, USA.
Co-organizer with F. Vega and R. Hofstetter.

14TH EUROPEAN MEETING OF PHD STUDENTS IN EVOLUTIONARY BIOLOGY - EMPSEB14 (9/2008)
Monastry, Einsiedeln, CH.
Member of the Organizing Committee.

SCIENTIFIC PRESENTATIONS

INVITED TALKS & SEMINARS (selected, in total >30)

2018
- Presentation to the exhibition „Duftspuren", Phyletisches Museum, Jena, DE
- Keynote, 10th Saproxylic Beetle Meeting, NP Bayerischer Wald, St. Oswald, DE
- Evolutionary Biology seminar series, FU Berlin, Berlin, DE

2017
- Keynote, International Union of Social Insects, Kloster Schöntal, DE
- Ecology and Evolution seminar series, University of Edinburgh, Edinburgh, SCO
- Zoological seminar, Universität Bielefeld, Bielefeld, DE
- Forest Sciences symposium, TU München, München, DE
- Presentation, Nationalpark Bayerischer Wald, St. Oswald, DE

2016
- Seminar, Instituto Nacional de Investigacao Agraria e Veterinaria, Oeiras, P
- Evolutionary Ecology Lab seminar series, Universität Bremen, DE
- Seminar, Nationalpark Bayerischer Wald, Grafenau, DE

2015
- Department of Bacteriology seminar series, University of Wisconsin, Madison, USA
- Plant pathology seminar series, University of Iowa, Ames, USA
- Social evolution seminar series, Toth lab, University of Iowa, Ames, USA
- Keynote, ESA Symposium on Forest Entomology: Synergy from Symbiosis, Minneapolis, USA
- Behaviour, Ecology and Evolution seminar series, University of Cambridge, UK

2013
- Department of Plant Sciences seminar series, Wageningen University, NL
- Biological Control and Spatial Ecology Lab Seminar, Université Libre de Bruxelles, BE
- Institute of Microbiology seminar series, Czech Academy of Sciences, Prague, CZ
- Laboratory of Genetics seminar series, Wageningen University, NL
- Population & Evolutionary Ecology Lab seminar series, Universität Bremen, DE
- Award presentation DGaaE, Universität Göttingen, DE
- Award presentation Österr. Entomolog. Gesellschaft, Universität Innsbruck, AT

2012
- Zoological seminar, Universität Würzburg, DE
- Zoological seminar, Universität Mainz, DE

2011
- Seminar series, Max-Planck Institute for Chemical Ecology, Jena, DE

2010
- Department of Environmental Sciences seminar series, ETH Zurich, CH
- Zoological seminar, Universität Regensburg, DE
- Ecology & Evolution seminar series, University of Neuchatel, CH
- Zoological colloquium, Universität Graz, AT

2007
- Section of Integrative Biology, University of Texas, Austin, USA
- Department of Bacteriology, University of Wisconsin, Madison, USA

CONFERENCE PRESENTATIONS (selected, in total >50)

2016
- International Congress of Entomology, Orlando, USA

2015	- Entomological Society of America, Minneapolis, USA - Deutsche Zoologische Gesellschaft (DZG), Graz, A
2014	- Life and Art Studies, USDA Forest Service, Asheville, North Carolina, USA - Bark & Ambrosia Beetle Academy, University of Florida, Gainsville, Florida, USA
2013	- Deutsche Gesellschaft für allgemeine und angewandte Entomologie, Göttingen, DE
2012	- International Union for the Study of Social Insects (IUSSI), Montecatini, IT
2011	- Genetics of Bark Beetles and Associated Microorganisms (IUFRO), Sopron, HU
2010	- International Union for the Study of Social Insects (IUSSI), Kopenhagen, DK - COST meeting, Diversity of symbioses in arthropods, Bad Bevensen, DE
2009	- European Society of Evolutionary Biology (ESEB), Torino, IT - 57th Annual Meeting Entomological Society of America, Indianapolis, USA
2008	- Behavioural Biology, Dijon, F
2007	- East Texas Forest Entomology Seminar (ETFES07), Nacogdotches/TX, US

MISCELLANEOUS

PUBLIC OUTREACH

2018	Exhibition about “Bark beetles”, open house day of Ecological Station, Univ. Würzburg Exhibition about “Ambrosia beetles and Alcohol”, Campus day, Univ. Würzburg
2017-18	Scientific consulting of exhibition „Duftspur“ (chemical scents), Phyletic museum Jena
Since 2017	Participation in “*Wintervortragsreihe”* for communicating research to the public, Univ. Würzburg
2016	Participation in “*Forsche Schüler*” for introducing pupils into science, MPI Chem. Ecol., Jena

CONSERVATION PROJECTS

2018	Initiator of conservation project “*Living Campus – Würzburg*” Project to monitor, conserve and increase biodiversity at the University Campus and raise public awareness for it

BIRD-MONITORING ACTIVITIES

2017-18	Monitoring for breeding bird atlas of Austria
2001-05	Monitoring for breeding bird atlas of Graz, AT
Since 1998	Yearly Austrian bird monitoring

RECOMMENDATIONS

NOMINATIONS FOR PROFESSORSHIPS

2017-18 **PROFESSORSHIP FOR FOREST ENTOMOLOGY, FOREST PATHOLOGY AND FOREST PROTECTION (W3)**
Universität für Bodenkultur (BOKU), Vienna, A.
In shortlist of three candidates, position unknown

2013 **Junior Professorship for Entomology (W1)**
Bundesanstalt für Materialforschung und Freie Universität Berlin, DE
2nd position on shortlist