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Tätigkeiten als Gutachter/Peer-review contributions

(see also at Publons)

Gutachter für internationale Fachzeitschriften, u.a. Trends in Plant Science; New Phytologist; Journal of Experimental Botany; Plant, Cell & Environment; Tree Physiology; Physiologia Plantarum; Plant Biology

VERÖFFENTLICHUNGEN

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Veröffentlichungen/Peer-reviewed publications

(Journals listed in Web of Science or the Directory of Open Access Journals)

2025

Tost M, Grigoriadou-Zormpa O, Wilhelmi S, Müller M, Wildhagen H, Curtu AL, Gailing O. 2025. Assessing the adaptive potential of European beech populations to temperature and precipitation along a steep environmental gradient in the south-eastern Carpathians. [Plant Biology](#), first published October 24, 2025. DOI 10.1111/plb.70129

Zormpa OG, Wilhelmi S, Vucetic B, Ciocirlan M-I-C, Müller M, Ciocirlan E, Curtu AL, Ben Targem M, Wildhagen H, Gailing O, Budde KB. 2025. Genetic diversity and fine-scale spatial genetic structure of European beech along an elevational gradient. [Heredity](#). DOI 10.1038/s41437-025-00776-8.

2022

Eckert C*, Wildhagen H*#, Paulo MJ, Scalabrin S, Ballauf J, Schnabel SK, Vendramin V, Keurentjes JJB, Bogeat-Triboulot M-B, Taylor G, Polle A. 2022. Genotypic and tissue-specific variation of *Populus nigra* transcriptome profiles in

response to drought. [Scientific Data](#). DOI 10.1038/s41597-022-01417-z. *These authors contributed equally. #corresponding author.

2019

Yu D, Wildhagen H, Tylewicz S, Miskolczi PC, Bhalerao RP, Polle A. 2019. Abscisic acid signalling mediates biomass trade-off and allocation in poplar. [New Phytologist 223 \(3\): 1192-1203](#). DOI 10.1111/nph.15878

Bogeat-Triboulot M-B, Buré C, Gerardin T, Chuste PA, Le Thiec D, Hummel I, Durand M, Wildhagen H, Douthe C, Molins A, Galmés J, Smith HK, Flexas J, Polle A, Taylor G, Brendel O. 2019. Additive effects of high growth rate and low transpiration rate drive differences in whole plant transpiration efficiency among black poplar genotypes. [Environmental and Experimental Botany 166: 103784](#); DOI: 10.1016/j.envexpbot.2019.05.021; **Link to preprint fulltext:** <https://hal.archives-ouvertes.fr/hal-02264373/document>

2018

Du B, Kreuzwieser J, Dannenmann M, Junker LV, Kleiber A, Hess M, Jansen K, Eiblmeier M, Gessler A, Kohnle U, Ensminger I, Rennenberg H, Wildhagen H. 2018. Foliar nitrogen metabolism of adult Douglas-fir trees is affected by soil water availability and varies little among provenances. [PLoS One 13\(3\):e0194684](#). DOI: 10.1371/journal.pone.0194684

Wildhagen H, Paul S, Allwright M, Smith HK, Malinowska M, Schnabel SK, Paulo MJ, Cattonaro F, Vendramin V, Scalabrin S, Janz D, Douthe C, Brendel O, Buré C, Cohen D, Hummel I, Le Thiec D, van Eeuwijk F, Keurentjes JJB, Flexas J, Morgante M, Robson P, Bogeat-Triboulot M-B, Taylor G, Polle, A. 2018. Genes and gene clusters related to genotype and drought-induced variation in saccharification potential, lignin content and wood anatomical traits in *Populus nigra*. [Tree Physiology 38: 320-339](#). Article first published online on May 24, 2017. DOI: [10.1093/treephys/tpx054](#)

2017

Paul S, Wildhagen H, Janz D, Polle A. 2017. Drought effects on the tissue- and cell-specific cytokinin activity in poplar. [Annals of Botany PLANTS 10\(1\), plx067](#). DOI: 10.1093/aobpla/plx067

Junker LV, Kleiber A, Jansen K, Wildhagen H, Hess M, Kayler Z, Kammerer B, Schnitzler J-P, Kreuzwieser J, Gessler A, Ensminger I. 2017. Variation in short-term and long-term responses of photosynthesis and isoprenoid-mediated photoprotection to soil water availability in four Douglas-fir provenances. [Scientific Reports 7:40145](#). DOI: 10.1038/srep40145

2016

Allwright MR, Payne A, Emiliani G, Milner S, Viger M, Rouse F, Keurentjes JJB, Bérard A, Wildhagen H, Faivre-Rampant P, Polle A, Morgante M, Taylor G. 2016. Biomass traits and candidate genes for bioenergy revealed through association genetics in coppiced European *Populus nigra* (L.). [Biotechnology for Biofuels 9: 195](#). DOI: 10.1186/s13068-016-0603-1

Hess M, Wildhagen H, Junker LV, Ensminger I. 2016. Transcriptome responses to temperature, water availability and photoperiod are conserved among mature trees of two divergent Douglas-fir provenances from a coastal and an interior habitat. [BMC Genomics 17:682](#). DOI: 10.1186/s12864-016-3022-6

Paul S, Wildhagen H, Janz D, Teichmann T, Hänsch R, Polle A. 2016. Tissue- and cell-specific cytokinin activity in *Populus × canescens* monitored by ARR5::GUS reporter lines in summer and winter. [Frontiers in Plant Science 7:653](#). DOI: 10.3389/fpls.2016.00652

Neophytou C, Weisser A-M, Landwehr D, Šeho M, Kohnle U, Ensminger I, Wildhagen H. 2016. Assessing the relationship between height growth and molecular genetic variation in Douglas-fir (*Pseudotsuga menziesii*) provenances. [European Journal of Forest Research 135: 465](#). DOI: 10.1007/s10342-016-0946-y

2015

Müller T, Freund F, Wildhagen H, Schmid KJ. 2015. Targeted re-sequencing of five Douglas-fir provenances reveals population structure and putative target genes of positive selection. [Tree Genetics & Genomes 11:816](#). DOI: 10.1007/s11295-014-0816-z

2013

Wildhagen H, Bilela S, Rennenberg H. 2013. Low temperatures counteract short-day induced nitrogen storage, but not accumulation of bark storage protein transcripts in bark of grey poplar (*Populus × canescens*) trees. [Plant Biology 15: 44-56](#). DOI: 10.1111/j.1438-8677.2012.00687.x

Malcheska F, Honsel A, Wildhagen H, Dürr J, Larisch C, Rennenberg H, Herschbach C. 2013. Differential expression of specific sulphate transporters underlies seasonal and spatial patterns of sulphate allocation in trees. [Plant, Cell & Environment 7:1285-1295](#). DOI: 10.1111/pce.12058

Hess M, Wildhagen H, Ensminger I. 2013. Suitability of Illumina deep mRNA sequencing for reliable gene expression profiling in a non-model conifer species (*Pseudotsuga menziesii*). [Tree Genetics & Genomes 9: 1513 – 1527](#). DOI: 10.1007/s11295-013-0656-2

2012

Janz D, Lautner S, Wildhagen H, Behnke K, Schnitzler J-P, Rennenberg H, Fromm J, Polle A. 2012. Salt stress induces the formation of a novel type of 'pressure wood' in two *Populus* species. [New Phytologist 194: 129-141](#). DOI: 10.1111/j.1469-8137.2011.03975.x

Larisch C, Dittrich M, Wildhagen H, Lautner S, Fromm J, Polle A, Hedrich R, Rennenberg H, Müller T, Ache P. 2012. Poplar wood rays are involved in seasonal remodelling of tree physiology. [Plant Physiology 160: 1515-1529](#). DOI: 10.1104/pp.112.202291

2011

Luo Z-B, Li K, Gai Y, Göbel C, Wildhagen H, Jiang X, Feußner I, Rennenberg H, Polle A. 2011. The ectomycorrhizal fungus (*Paxillus involutus*) modulates leaf physiology of poplar towards improved salt tolerance. [Environmental and Experimental Botany 72: 304-311](#). DOI: 10.1016/j.envexpbot.2011.04.008

2010

Wildhagen H, Dürr J, Ehlting B, Rennenberg H. 2010. Seasonal nitrogen cycling in the bark of field-grown Grey poplar is correlated with meteorological factors and gene expression of bark storage proteins. [Tree Physiology 30: 1096-1110](#). DOI: 10.1093/treephys/tpq018

Rennenberg H, Wildhagen H, Ehlting B. 2010. Nitrogen nutrition of poplar trees. [Plant Biology 12: 275-291](#). DOI: 10.1111/j.1438-8677.2009.00309.x

Dürr J, Bücking H, Mult S, Wildhagen H, Palme K, Rennenberg H, Ditengou F, Herschbach C. 2010. Seasonal and cell type specific expression of sulfate transporters in the phloem of *Populus* reveals tree specific characteristics for SO₄²⁻ storage and mobilization. [Plant Molecular Biology 72: 499-517](#). DOI: 10.1007/s11103-009-9587-6

2009

Luo Z-B, Janz D, Jiang X, Göbel C, Wildhagen H, Tan Y, Rennenberg H, Feussner I, Polle A. 2009. Upgrading root physiology for stress tolerance by ectomycorrhizas: insights from metabolite and transcriptional profiling into reprogramming for stress anticipation. [Plant Physiology 151: 1902-1917](#). DOI: 10.1104/pp.109.143735

Veröffentlichungen/Peer-reviewed publications

(Journals **NOT** listed in Web of Science or the Directory of Open Access Journals)

2019
<p>Indreica A, Teodosiu M, Petrișan A-M, Öder V, Kasper J, Bergmeier E, Leuschner C, Gailing O, Hohnwald S, Wildhagen H, Walentowski H. 2019. Nemoral deciduous forests under climatic extremes – phytosociological studies along climatic gradients in SW Romania. Proceedings of the Biennial International Symposium “Forest and Sustainable Development”, p. 139-148. 8th Edition. Transilvania University Press. ISSN 1843-505X. Link to fulltext: https://silvic.unitbv.ro/images/conferinte/fsd/proceedings/14.-Indreica-et-al.---ID-178.pdf</p>
Veröffentlichungen ohne peer-review/Publications without peer-review
2026
<p>Aiyesa LV, He M, Wildhagen H, Steiner W, Hardtke A, Hofmann M, Müller M, Gailing O. 2026. Genomic prediction enables provenance-aware selection in sessile oak (<i>Quercus petraea</i>) using foliar physiological traits. bioRxiv, DOI 10.64898/2026.03.31.715316</p>
2025
<p>Wildhagen H, Wilhelmi S, Ben Targem M, Grigoriadou-Zormpa O, Tost M, Gube M, Müller M, Budde KB, He M, Schneider T, Hardtke A, Hofmann M, Gailing O. 2025. DroughtMarkers – Entwicklung genetischer Marker zur Analyse von Anpassungen an Trockenstress bei Trauben-Eiche und Buche. Schlussbericht Projekt DroughtMarkers, Waldklimafonds, FNR. DOI https://doi.org/10.34657/27198</p>
<p>Tost M, Zormpa OG, Wilhelmi S, Beissinger T, Ben Targem M, Müller M, Wildhagen H, Curtu AL, Gailing O. 2025. Genome-wide association study in European beech (<i>Fagus sylvatica</i> L.) for drought stress traits. bioRxiv, DOI 10.1101/2025.04.08.647712</p>
<p>Tost M, Zormpa OG, Wilhelmi S, Müller M, Wildhagen H, Curtu AL, Gailing O. 2025. Assessing the adaptive potential to temperature and precipitation along a steep environmental gradient in populations of European beech. bioRxiv, DOI 10.1101/2025.06.03.657567</p>
2024
<p>Zormpa OG, Wilhelmi S, Vucetic B, Ciocirlan M-I-C, Müller M, Ciocirlan E, Curtu AL, Ben Targem M, Wildhagen H, Gailing O, Budde KB. 2024. Differences in fine-scale spatial genetic structure of European beech along an elevational gradient. ResearchSquare. DOI 10.21203/rs.3.rs-4559673/v1.</p>

2020
Breidenbach N, Wildhagen H , Bandurski C, Engelhardt L, Büttner M, Gailing O, Krutovsky KV. 2020. Phänotypische und genetische Reaktionen von <i>Sequoia sempervirens</i> Herkünften auf Frosttemperaturen. In: Liesebach M (ed) Forstpflanzenzüchtung für die Praxis: 6. Tagung der Sektion Forstgenetik/Forstpflanzenzüchtung vom 16. Bis 18. September 2019 in Dresden: Tagungsband. Braunschweig: Johann Heinrich von Thünen-Institut, 296p, Thünen Report 76 , DOI:10.3220/REP1584625360000
Datensätze / Data sets
2025
Tost M, Grigoriadou-Zormpa O, Wilhelmi S, Müller M, Gailing O, Wildhagen H, Curtu AL. 2025. VCF file with SPET sequencing data of „DroughtMarkers“ project. DOI: https://doi.org/10.6084/m9.figshare.28748924.v1
Buchkapitel / Book chapters
2016
Taylor G, Allwright MR, Smith HK, Polle A, Wildhagen H, Hertzberg M, Bhalerao RP, Keurentjes JJB, Scalabrin S, Scaglione D, Morgante M. Bioenergy Trees: Genetic and genomic strategies to improve yield. Perennial Biomass Crops for a Resource-Constrained World. pp 167-190 . Editors: Barth S, Murphy-Bokern D, Kalinina O, Taylor G, Jones M. Springer, Cham. DOI: 10.1007/978-3-319-44530-4_15