

Curriculum vitae

Dr. rer. nat. E.C.D. (Ernst) van der Maaten

Contact information

Work address

TU Dresden

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Personal Details

Date of birth: 9th of May, 1985

Place of birth: Epe, the Netherlands

Nationality: Dutch

Working experience

- since 03/2018 **Senior scientist** and **head of DendroLab**, Chair of Forest Growth and Woody Biomass Production, TU Dresden, Germany.
- 05/2013–02/2018 **Post-doctoral researcher** in forest ecology, Landscape Ecology and Ecosystem Dynamics Group, University of Greifswald, Germany.
- 05/2013–12/2015 **Post-doctoral researcher** within the Helmholtz Virtual Institute ICLEA ('Integrated Climate and Landscape Evolution Analyses').
- 05/2009–04/2013 **Research employee** within the 7th Framework Programme 'MODELS for adaptive forest management' (MOTIVE), Chair of Forest Growth, University of Freiburg, Germany.
- 09/2008–04/2009 **Research employee** tri-national research collaboration Nancy- Freiburg-Zürich, Chair of Forest Growth, University of Freiburg, Germany.

Education

- 09/2008–01/2013 **Ph.D.**, Chair of Forest Growth, University of Freiburg, Germany.
Promotor: Prof. H. Spiecker & co-promotor: Prof. H. Rennenberg.
- 09/2006–08/2008 **M.Sc. double-degree: Forest & Nature Conservation**, Wageningen University, the Netherlands / *European Forestry*, University of Joensuu, Finland.
- 09/2003–08/2006 **B.Sc. Forest & Nature Conservation**, Wageningen University, the Netherlands.

Rankings and awards

- 12/2021 **Teaching Prize** (1k Euro) for extraordinary commitment in teaching; awarded by the the board of the Society of Friends and Supporters of TU Dresden (GFF) and the Vice-Rector for Education.
- 06/2017 **Ranked 1st** (dual hire with Dr. Marieke van der Maaten-Theunissen) and **2^b** (individually) for the **W2 Professorship Forest Growth and Woody Biomass Production**, TU Dresden, Germany.

Publications

ISI-listed journal publications

- ◇ Jevšenak, J., Klisz, M., Mašek, J., Čada, V., Janda, P., Svoboda, M., Vostarek, O., Tremel, V., **van der Maaten, E.**, Popa, A., Popa, I., van der Maaten-Theunissen, M., Zlatanov, T., Scharnweber, T., Ahlgrimm, S., Stolz, J., ..., Kuithan, C., et al. (2024). Incorporating high-resolution climate, remote sensing and topographic data to map annual forest growth in central and eastern Europe. *Science of the Total Environment* **913**: 169692. doi: 10.1016/j.scitotenv.2023.169692
- ◇ Kaiser, K., Theuerkauf, M., **van der Maaten, E.**, van der Maaten-Theunissen, M. & Beil, A. (2024). Forest history from a single tree species perspective: natural occurrence, near extinction and reintroduction of European yew (*Taxus baccata* L.) on the Darss-Zingst peninsula, southern Baltic Sea coast. *European Journal of Forest Research* **xx**: xxx. doi: 10.1007/s10342-024-01665-1
- ◇ Liepe, K.J., **van der Maaten, E.**, van der Maaten-Theunissen, M., Kormann, J.M., Wolf, H. & Liesebach, M. (2024). Ecotypic variation in multiple traits of European beech: selection of suitable provenances based on performance and stability. *European Journal of Forest Research* **xx**: xxx. doi: 10.1007/s10342-024-01656-2
- ◇ Popa, A., **van der Maaten, E.**, Popa, I. & van der Maaten-Theunissen, M. (2024). Early warning signals indicate climate change-induced stress in Norway spruce in the Eastern Carpathians. *Science of the Total Environment* **912**: 169167. doi: 10.1016/j.scitotenv.2023.169167
- ◇ **van der Maaten, E.**, Thurm, E.A., Stolz, J., Henkel, A., Leinemann, L., Profft, I., Schröder, J., Voth, W. & van der Maaten-Theunissen, M. (2024). Long-term growth decline is not reflected in crown vitality status of European beech after a recent extreme drought. *Forest Ecology and Management* **551**: 121516. doi: 10.1016/j.foreco.2023.121516
- ◇ Hirsch, F., Schneider, A., van der Maaten-Theunissen, M., **van der Maaten, E.**, Rübiger, C., Raab, A. & Raab, T. (2023). Soil properties and tree growth at medieval ridge and furrow sites in Brandenburg, northeastern Germany. *Journal of Plant Nutrition and Soil Science* **186**: 417-427. doi: 10.1002/jpln.202200345
- ◇ Jetschke, G., **van der Maaten, E.** & van der Maaten-Theunissen, M. (2023). Pointer years revisited: Does one method fit all? A clarifying discussion. *Dendrochronologia* **78**: 126064. doi: 10.1016/j.dendro.2023.126064
- ◇ Nasibullina, A., van der Maaten-Theunissen, M., **van der Maaten, E.**, Fischer, H. & Wagner, S. (2023). Thinning effects on growth and occurrence of rotting in aspen stands. *Journal of Forest Science* **69**: 525-538. doi: 10.17221/103/2023-JFS
- ◇ Stolz, J., Forkel, M., **van der Maaten, E.**, Martin, J. & van der Maaten-Theunissen, M. (2023). Through eagle eyes—the potential of satellite-derived LAI time series to estimate masting

events and tree-ring width of European beech. *Regional Environmental Change* **23**: 74. doi: 10.1007/s10113-023-02068-5

- ◇ Visser, H., van der Maaten-Theunissen, M. & **van der Maaten, E.** (2023). BAI BAI bias – An evaluation of uncertainties in calculating basal area increments from cores. *Dendrochronologia* **78**: 126066. doi: 10.1016/j.dendro.2023.126066
- ◇ Dorado-Liñán, I., Ayarzagüena, B., Babst, F., Xu, G., Gil, L., Battipaglia, G., Buras, A., Čada, V., Camarero, J. J., Cavin, L., Claessens, H., Drobyshev, I., Garamszegi, B., Grabner, M., Hacket-Pain, A., Hartl, C., Hevia, A., Janda, P., Jump, A. S., Kazimirovic, M., Keren, S., Kreyling, J., Land, A., Latte, N., Levanič, T., **van der Maaten, E.**, van der Maaten-Theunissen, M., Martínez-Sancho, E., Menzel, A., Mikoláš, M., Motta, R., Muffler, L., Nola, P., Panayotov, M., Petritan, A. M., Petritan, I. C., Popa, I., Prislan, P., Roibu, C.-C., Rydval, M., Sánchez-Salguero, R., Scharnweber, T., Stajić, B., Svoboda, M., Tegel, W., Teodosiu, M., Toromani, E., Trotsiuk, V., Turcu, D.-O., Weigel, R., Wilmking, M., Zang, C., Zlatanov, T. & Trouet, V. (2022). Jet stream position explains regional anomalies in European beech forest productivity and tree growth. *Nature Communications* **13**: 2015. doi: 10.1038/s41467-022-29615-8
- ◇ Liepe, K.J., **van der Maaten, E.**, van der Maaten-Theunissen, M. & Liesebach, M. (2022). High phenotypic plasticity, but low signals of local adaptation to climate in a large-scale transplant experiment of *Picea abies* (L.) Karst. in Europe. *Frontiers in Forests and Global Change* **5**: 804857. doi: 10.3389/ffgc.2022.804857
- ◇ Mahnken, M., Cailleret, M., Collalti, A., Trotta, C., Biondo, C., D'Andrea, E., Dalmonech, D., Marano, G., Mäkelä, A., Minunno, F., Peltoniemi, M., Trotsiuk, V., Nadal-Sala, D., Sabaté, S., Vallet, P., Aussenac, R., Cameron, D.R., Bohn, F.J., Grote, R., Augustynczyk, A.L.D., Yousefpour, R., Huber, N., Bugmann, H., Merganicova, K., Merganic, J., Valent, P., Lasch-Born, P., Hartig, F., Vega del Valle, I.D., Volkholz, J., Gutsch, M., Matteucci, G., Krejza, J., Ibrom, A., Meesenburg, H., Rötzer, T., van der Maaten-Theunissen, M., **van der Maaten, E.** & Reyer, C.P.O. (2022). Accuracy, realism and general applicability of European forest models. *Global Change Biology* **28**: 6921-6943. doi: 10.1111/gcb.16384
- ◇ Malyshev, A.V., **van der Maaten, E.**, Garthen, A., Maß, D., Schwabe, M. & Kreyling, J. (2022). Inter-individual budburst variation in *Fagus sylvatica* is driven by warming rate. *Frontiers in Plant Science* **13**: 853521. doi: 10.3389/fpls.2022.853521
- ◇ Martínez del Castillo, E., Zang, C., Buras, A., Hacket Pain, A., Esper, J., Serrano-Notivoli, R., Hartl, C., Weigel, R., Klesse, S., Resco de Dios, V., Scharnweber, T., Dorado-Liñán, I., van der Maaten-Theunissen, M., **van der Maaten, E.**, Jump, A., Mikac, S., Banzragch, B., Beck, W., Cavin, L., Claessens, H., Čada, V., Čufar, K., Dulamsuren, C., Gricar, J., Gil-Pelegrín, E., Janda, P., Kazimirovic, M., Kreyling, J., Latte, N., Leuschner, C., Alberto Longares, L., Menzel, A., Merela, M., Motta, R., Muffler, L., Nola, P., Petritan, A., Petritan, I., Prislan, P., Rubio-Cuadrado, Á., Rydval, M., Stajić, B., Svoboda, M., Toromani, E., Trotsiuk, V., Wilmking, M., Zlatanov, T. & de Luis, M. (2022). Climate-change-driven growth decline of European beech forests. *Communications Biology* **5**: 163. doi: 10.1038/s42003-022-03107-3
- ◇ Salomón, R.L., Peters, R.L., Zweifel, R., Sass-Klaassen, U.G.W., Stegehuis, A.I., Smiljanic, M., Poyatos, R., Babst, F., Cienciala, E., Fonti, P., Lerink, B.J.W., Lindner, M., Martínez-Vilalta, J., Mencuccini, M., Nabuurs, G.-J., **van der Maaten, E.**, von Arx, G., ..., & Steppe, K. (2022). The 2018 European heatwave led to stem dehydration but not to consistent growth reductions. *Nature Communications* **13**: 28. doi: 10.1038/s41467-021-27579-9
- ◇ Raab, T., Raab, A., Bonhage, A., Schneider, A., Hirsch, F., Birkhofer, K., Drohan, P., Wilmking, M., Kreyling, J., Malik, I., Wistuba, M., **van der Maaten, E.**, van der Maaten-Theunissen, M. & Urlich, T. (2022). Do small landforms have large effects? A review on

the legacies of pre-industrial charcoal burning. *Geomorphology* **413**: 108332. doi: 10.1016/j.geomorph.2022.108332

- ◇ Schröder, J., van der Maaten-Theunissen, M., **van der Maaten, E.** & Thurm, E.A. (2022). Wuchsreaktionen der Rot-Buche auf die Witterung: ausgewählte Ergebnisse von Jahrringanalysen in Nordostdeutschland. *Eberswalder Forstlichen Schriftenreihe* **71**: 46-55.
- ◇ van der Maaten-Theunissen, M., Trouillier, M., Schwarz, J., Skiadaresis, G., Thurm, E.A., & **van der Maaten, E.** (2021). pointRes 2.0: New functions to describe tree resilience. *Dendrochronologia* **70**: 125899. doi: 10.1016/j.dendro.2021.125899
- ◇ Stolz, J., **van der Maaten, E.**, Kalanke, H., Martin, J., Wilmking, M. & van der Maaten-Theunissen, M. (2021). Increasing climate sensitivity of beech and pine is not mediated by adaptation and soil characteristics along a precipitation gradient in northeastern Germany. *Dendrochronologia* **67**: 125834. doi: 10.1016/j.dendro.2021.125834
- ◇ Suliman, T., Berger, U., van der Maaten-Theunissen, M., **van der Maaten, E.** & Ali, W. (2021). Modeling dominant height growth using permanent plot data for *Pinus brutia* stands in the Eastern Mediterranean region. *Forest Systems* **30**: eSC03. doi: 10.5424/fs/2021301-17687
- ◇ Weigel, R., Henry, H.A.L., Beil, I., Gebauer, G., Jurasinski, G., Klisz, M., **van der Maaten, E.**, Muffler, L. & Kreyling, J. (2021). Ecosystem processes show uniform sensitivity to winter soil temperature change across a gradient from central to cold marginal stands of a major temperate forest tree. *Ecosystems* **24**: 1545-1560. doi: 10.1007/s10021-021-00600-4
- ◇ Muffler, L., Weigel, R., Hackett-Pain, A., Klisz, M., **van der Maaten, E.**, Wilmking, M., Kreyling, J. & van der Maaten-Theunissen, M. (2020). Lowest drought sensitivity and decreasing growth synchrony towards the dry distribution margin of European beech. *Journal of Biogeography* **47**: 1910-1921. doi: 10.1111/jbi.13884
- ◇ Wilmking, M.*, van der Maaten-Theunissen, M.*, **van der Maaten, E.***, Scharnweber, T., Buras, A., Biermann, C., Gurskaya, M., Hallinger, M., Lange, J., Shetti, R., Smiljanić, M. & Trouillier, M. (2020). Global assessment of relationships between climate and tree growth. *Global Change Biology* **26**: 3212-3220. *contributed equally. doi: 10.1111/gcb.15057
- ◇ Buras, A., Hirsch, F., Schneider, A., Scharnweber, T., **van der Maaten, E.**, Cruz-García, R., Raab, T. & Wilmking, M. (2020). Reduced above-ground growth and wood density but increased wood chemical concentrations of Scots pine on relict charcoal hearths. *Science of the Total Environment*: 137189. doi: 10.1016/j.scitotenv.2020.137189
- ◇ Harvey, J. E., Smiljanić, M., Scharnweber, T., Buras, A., Cedro, A., Cruz-García, R., Drobyshch, I., Janecka, K., Jansons, A., Kaczka, R., Klisz, M., Läänelaid, A., Matisons, R., Muffler, L., Sohar, K., Spyt, B., Stolz, J., **van der Maaten, E.**, van der Maaten-Theunissen, M., Vitas, A., Weigel, R., Kreyling, J. & Wilmking, M. (2020). Tree growth influenced by warming winter climate and summer moisture availability in northern temperate forests. *Global Change Biology* **26**: 2505-2518. doi: 10.1111/gcb.14966
- ◇ Jetschke, G., **van der Maaten, E.** & van der Maaten-Theunissen, M. (2019). Towards the extremes: a critical analysis of pointer year detection methods. *Dendrochronologia* **53**: 55-62. doi: 10.1016/j.dendro.2018.11.004
- ◇ Scharnweber, T., Heußner, K-U., Smiljanić, M., Heinrich, I., van der Maaten-Theunissen, M., **van der Maaten, E.**, Struwe, T., Buras, A. & Wilmking, M. (2019). Removing the no-analogue bias in modern accelerated tree growth leads to stronger medieval drought. *Scientific Reports* **9**: 2509. doi: 10.1038/s41598-019-39040-5
- ◇ Balanzategui, D., Knorr, A., Heußner, K-U., Wazny, T., Beck, W., Słowiński, M., Helle, G., Buras, A., Wilmking, M., **van der Maaten, E.**, Scharnweber, T., Dorado Liñán, I. & Heinrich,

- I. (2018). An 810-year history of cold season temperature variability for northern Poland. *Boreas* **47**: 443-453. doi: 10.1111/bor.12274
- ◇ Hacket-Pain, A., Ascoli, D., Vacchiano, G., Biondi, F., Cavin, L., Conedera, M., Drobyshev, I., Dorado Liñán, I., Friend, A., Grabner, M., Hartl, C., Kreyling, J., Lebourgeois, F., Levanič, T., Menzel, A., **van der Maaten, E.**, van der Maaten-Theunissen, M., Muffler, L., Motta, R., Roibu, C., Popa, I., Scharnweber, T., Weigel, R., Wilmking, M. & Zang, C. (2018). Climatically controlled reproduction drives inter-annual growth variability in a temperate tree species. *Ecology Letters* **21**: 1833-1844. doi: 10.1111/ele.13158
 - ◇ **van der Maaten, E.**, Pape, J., van der Maaten-Theunissen, M., Scharnweber, T., Smiljanić, M., Cruz-García, R. & Wilmking, M. (2018). Distinct growth phenology but similar daily stem dynamics in three co-occurring broadleaved tree species. *Tree Physiology* **38**: 1820-1828. doi: 10.1093/treephys/tpy042
 - ◇ Weigel, R., Klisz, M., Kreyling, J., van der Maaten-Theunissen, M., Muffler, L., Wilmking, M. & **van der Maaten, E.** (2018). Winter matters: sensitivity to winter climate and cold events increases towards the cold distribution margin of European beech (*Fagus sylvatica* L.). *Journal of Biogeography* **45**: 2779-2790. doi: 10.1111/jbi.13444
 - ◇ Wilmking, M., Buras, A., Lehejček, J., Lange, J., Shetti, R. & **van der Maaten, E.** (2018). Influence of larval outbreaks on the climate reconstruction potential of an Arctic shrub. *Dendrochronologia* **49**: 36-43. doi: 10.1016/j.dendro.2018.02.010
 - ◇ Príncipe, A., **van der Maaten, E.**, van der Maaten-Theunissen, M., Struwe, T., Wilmking, M. & Kreyling, J. (2017). Low resistance but high resilience in growth of a major deciduous forest tree (*Fagus sylvatica* L.) in response to late spring frost in southern Germany. *Trees - Structure and Function* **31**: 743-751. doi: 10.1007/s00468-016-1505-3
 - ◇ **van der Maaten, E.**, Hamann, A., van der Maaten-Theunissen, M., Bergsma, A., Hengeveld, G., van Lammeren, R., Mohren, F., Nabuurs, G-J., Terhürne, R. & Sterck, F. (2017). Species distribution models predict temporal but not spatial variation in forest growth. *Ecology and Evolution* **7**: 2585-2594. doi: 10.1002/ece3.2696
 - ◇ **van der Maaten, E.**, Mehl, A., Wilmking, M. & van der Maaten-Theunissen, M. (2017). Tapping the tree-ring archive for studying effects of resin extraction on the growth and climate sensitivity of Scots pine. *Forest Ecosystems* **4**: 7. doi: 10.1186/s40663-017-0096-9
 - ◇ Reyer, C., Bathgate, S., Blennow, K., Borges, J.G., Bugmann, H., Delzon, S., Faias, S.P., Garcia-Gonzalo, J., Gardiner, B., Gonzalez-Olabarria, J.R., Gracia, C., Guerra, J., Kellomäki, S., Kramer, K., Lexer, M.J., Lindner, M., **van der Maaten, E.**, Maroschek, M., Muys, B., Nicoll, B., Palahi, M., Palma, J.H.N., Paulo, J.A., Peltola, H., Pukkala, T., Rammer, W., Ray, D., Sabaté, S., Schelhaas, M., Seidl, R., Temperli, C., Tomé, M., Yousefpour, R., Zimmermann, N.E. & Hanewinkel, M. (2017). Are forest disturbances amplifying or canceling out climate change-induced productivity changes in European forests? *Environmental Research Letters* **12**: 034027. doi: 10.1088/1748-9326/aa5ef1
 - ◇ Wilmking, M., Scharnweber, T., van der Maaten-Theunissen, M. & **van der Maaten, E.** (2017). Reconciling the community with a concept – The Uniformitarian principle in the dendro-sciences. *Dendrochronologia* **44**: 211-214. doi: 10.1016/j.dendro.2017.06.005
 - ◇ Buras, A., van der Maaten-Theunissen, M., **van der Maaten, E.**, Ahlgrimm, S., Hermann, P., Simard, S., Heinrich, I., Helle, G., Unterseher, M., Schmittler, M., Eusemann, P. & Wilmking, M. (2016). Tuning the voices of a choir: detecting ecological gradients in time-series populations. *PLOS ONE* **11**: e0158346. doi: 10.1371/journal.pone.0158346
 - ◇ **van der Maaten, E.**, van der Maaten-Theunissen, M., Smiljanić, M., Rossi, S., Simard, S., Wilmking, M., Deslauriers, A., Fonti, P., von Arx, G. & Bouriaud, O. (2016). dendrometeR: analyzing the pulse of trees in R. *Dendrochronologia* **40**: 12-16. doi: 10.1016/j.dendro.2016.06.001

- ◇ van der Maaten-Theunissen, M., Bümmerstede, H., Iwanowski, J., Scharnweber, T., Wilmking, M. & **van der Maaten, E.** (2016). Drought sensitivity of beech on a shallow chalk soil in northeastern Germany - a comparative study. *Forest Ecosystems* **3**: 24. doi: 10.1186/s40663-016-0083-6
- ◇ Scharnweber, T., Hevia, A., Buras, A., **van der Maaten, E.** & Wilmking, M. (2016). Common trends in elements? Within- and between-tree variations of wood-chemistry measured by X-ray fluorescence - A dendrochemical study. *Science of the Total Environment* **566-567**: 1245-1253. doi: 10.1016/j.scitotenv.2016.05.182
- ◇ Siegmund, J.F., Sanders, T.G., Heinrich, I., **van der Maaten, E.**, Simard, S., Helle, G. & Donner, R.V. (2016). Meteorological drivers of extremes in daily stem radius variations of beech, oak and pine in northeastern Germany: an event coincidence analysis. *Frontiers in Plant Science* **7**: 733. doi: 10.3389/fpls.2016.00733
- ◇ **van der Maaten, E.**, van der Maaten-Theunissen, M., Buras, A., Scharnweber, T., Simard, S., Kaiser, K., Lorenz, S. & Wilmking, M. (2015). Can we use tree rings of black alder to reconstruct lake levels? A case study for the Mecklenburg Lake District, northeastern Germany. *PLOS ONE* **10**: e0137054. doi: 10.1371/journal.pone.0137054
- ◇ van der Maaten-Theunissen, M.*, **van der Maaten, E.*** & Bouriaud, O. (2015). pointRes: An R package to analyze pointer years and components of resilience. *Dendrochronologia* **35**: 34-38. *contributed equally. doi: 10.1016/j.dendro.2015.05.006
- ◇ Spathelf, P., Bolte, A. & **van der Maaten, E.** (2015). Is Close-to-Nature Silviculture (CNS) an adequate concept to adapt forests to climate change? *Landbauforschung - Applied Agricultural and Forestry Research* **65**: 161-170. doi: 10.3220/LBF1452526188000
- ◇ Lindner, M., Fitzgerald, J.B., Zimmermann, N.E., Reyer, C., Delzon, S., **van der Maaten, E.**, Schelhaas, M., Lasch, P., Eggers, J., van der Maaten-Theunissen, M., Suckow, F., Psomas, A., Poulter, B. & Hanewinkel, M. (2014). Climate change and European forests: what do we know, what are the uncertainties, and what are the implications for forest management? *Journal of Environmental Management* **146**: 69-83. doi: 10.1016/j.jenvman.2014.07.030
- ◇ Spathelf, P., **van der Maaten, E.**, van der Maaten-Theunissen, M., Campioli, M. & Dobrowolska, D. (2014). Climate change impacts in European forests: the expert-views of local observers. *Annals of Forest Science* **71**: 131-137. doi: 10.1007/s13595-013-0280-1
- ◇ **van der Maaten, E.** (2013). Thinning prolongs growth duration of European beech (*Fagus sylvatica* L.) across a valley in southwestern Germany. *Forest Ecology and Management* **306**: 135-141. doi: 10.1016/j.foreco.2013.06.030
- ◇ **van der Maaten, E.**, Bouriaud, O., van der Maaten-Theunissen, M., Mayer, H. & Spiecker, H. (2013). Meteorological forcing of day-to-day stem radius variations of beech is highly synchronic on opposing aspect of a valley. *Agricultural and Forest Meteorology* **181**: 85-93. doi: 10.1016/j.agrformet.2013.07.009
- ◇ van der Maaten-Theunissen, M., Boden, S. & **van der Maaten, E.** (2013). Wood density variations of Norway spruce (*Picea abies* (L.) Karst.) under contrasting climate conditions in southwestern Germany. *Annals of Forest Research* **56**: 91-103.
- ◇ van der Maaten-Theunissen, M., Kahle, H.P. & **van der Maaten, E.** (2013). Drought sensitivity of Norway spruce is higher than that of silver fir along an altitudinal gradient in southwestern Germany. *Annals of Forest Science* **70**: 185-193. doi: 10.1007/s13595-012-0241-0
- ◇ **van der Maaten, E.** (2012). Climate sensitivity of radial growth in European beech (*Fagus sylvatica* L.) at different aspects in southwestern Germany. *Trees - Structure and Function* **26**: 777-788. doi: 10.1007/s00468-011-0645-8

- ◇ **van der Maaten, E.**, van der Maaten-Theunissen, M. & Spiecker, H. (2012). Temporally resolved intra-annual wood density variations in European beech (*Fagus sylvatica* L.) as affected by climate and aspect. *Annals of Forest Research* **55**: 113-124.

Other publications (excl. conference contributions)

- ◇ Stolz, J., **van der Maaten, E.**, van der Maaten-Theunissen, M. & Martin, J. (2019). Forschungsprojekt der TU Dresden und des Forstlichen Versuchswesens der Landesforst MV. *immerGRÜN* Dezember: 16-17.
- ◇ Buras, A., Scharnweber, T., Simard, S., **van der Maaten, E.**, Tober, A., Heinrich, I., Kaiser, K. & Wilmking, M. (2015). Aktuelle dendroökologische Fragestellungen im Teilgebiet Serrahn des Müritz Nationalparks. *Pages 53-60 of: Kaiser, K., Kobel, J., Küster, M. & Schwabe, M. (eds), Neue Beiträge zum Naturraum und zur Landschaftsgeschichte im Teilgebiet Serrahn des Müritz-Nationalparks*, Forschung und Monitoring 4, Geozon Science Media, Berlin.
- ◇ Scharnweber, T., van der Maaten-Theunissen, M., **van der Maaten, E.** & Wilmking, M. (2015). Dendroökologische Forschung auf der Insel Vilm. *Pages 147-151 of: Gehlhar, U., & Knapp, H.D. (eds), Erste Ergebnisse der Naturwaldforschung im Naturwaldreservat Insel Vilm*, BfN-Skripten 390, Bonn.
- ◇ **van der Maaten, E.** (2013). Intra- and interannual growth responses of European beech (*Fagus sylvatica* L.) to climate, aspect and thinning in the Swabian Alb - southwestern Germany. Ph.D. thesis, University of Freiburg, Germany, 134 p.
- ◇ **van der Maaten, E.**, Spathelf, P., Köthke, M., Schall, P., Taeger, S., Menzel, A., Bolte, A., Ammer, C. & Spiecker, H. (2010). Country report “Germany”: climate change impacts, adaptation and mitigation. *Report written in the frame of COST action FP0703 ECHOES*, 47 p.
- ◇ **van der Maaten, E.** (2008). Double-degree programme: Master of Science in “European Forestry”: an International MSc-programme from a student perspective. *In: Design and functioning of international forestry curricula: considerations and experiences* (Ed. P. Schmidt and S. Lewark), *Silva Publications* **5**: 60–65, Joensuu, Finland.
- ◇ **van der Maaten, E.** (2008). Responses of European tree species to climate change: impact assessment for 5 tree species in the boreal, atlantic and continental region. M.Sc. thesis, Wageningen University, the Netherlands, 52 p.
- ◇ **van der Maaten, E.** (2006). Climate change and Dutch forests: consequences and possibilities for forest management (original title in Dutch: *Klimaatverandering en het Nederlandse bos: gevolgen en mogelijkheden voor bosbeheer*). B.Sc. thesis, Wageningen University, the Netherlands, 24 p.

Grants / Raised funding

- | | |
|------|---|
| 2021 | <i>Research grant</i> of the FNR Waldklimafonds to the collaborative research project ‘Research focus genetics and dendroecology of European beech – drought stress, in-vitro culture and genomics (BucheTIG)’ (02/2022–03/2025; total funding: 2.2m Euro); PI. |
| 2019 | <i>Financial support</i> of the Eva Mayr-Stihl Stiftung to organize an excursion with B.Sc. forestry students of TU Dresden and Wageningen University on ‘Rotbuche und Klimawandel – eine Exkursion mit internationalem Erfahrungsaustausch’ (4.6k Euro). |

2016	Scholarship of the German Scientific Exchange Service ‘DAAD’ to attend AmeriDendro 2016 in Mendoza, Argentina (2.2k Euro).
2015	Research grant of the Eva Mayr-Stihl Stiftung to the project ‘Zur Vergangenheit und Zukunft der Rotbuche (<i>Fagus sylvatica</i> L.) im Nationalpark Jasmund, Rügen’ (7.3k Euro); PI.
2014	Invited participant to COST Strategic Event ‘A scientific roadmap for projections of global change impacts on forests’, Sarajevo, Bosnia and Herzegovina; grant of COST Office (1k Euro).
2011	Short-term scientific mission (STSM) to Wageningen University; grant of COST Action ECHOES (2.2k Euro).
2010	Meeting support to organize an international Ph.D. training school ‘Impacts of climate change on growth and mortality of forests in Europe’. Proposal submitted as local organizer to, and granted by COST Action ECHOES (12k Euro).

Academic self-administration and services

Current activities:

President	<i>Association for Tree-Ring Research</i> , since 05/2022.
Editor	<i>Trees - Structure and Function</i> , since 11/2016. <i>Frontiers in Forests and Global Change - Temperate and Boreal Forests</i> , since 11/2018.
Commissioner	Member of the Study Commission for B.Sc./M.Sc. studies ‘Forest Sciences’, TU Dresden, since 09/2020.
Reviewer	For the following ISI-listed journals: <i>Agricultural and Forest Meteorology – Agronomy Research – Annals of Forest Science – Canadian Journal of Forest Research – Climatic Change – Climatic Research – Dendrochronologia – European Journal of Forest Research – Flora – Forest Ecology and Management – Forest Ecology, Landscape Research and Nature Conservation – Forestry – Forests – iForest – International Journal of Biometeorology – Journal of Biogeography – New Forests – Scientific Reports – Trees – Tree-Ring Research – Quaternary International.</i>

Former activities:

Treasurer	<i>Association for Tree-Ring Research</i> , 04/2018 – 05/2022.
Commissioner	Member of the Search Committee for the ‘Chair of / Junior Professorship for Geosensor Systems’ (W2 / W1), TU Dresden, 05/2020 – 01/2021.
Board member	Early-Career Scientist Commissioner of the <i>Association for Tree-Ring Research</i> , 05/2016 – 04/2018.
Council member	Representative ‘Scientific staff’, Council of the Institute of Botany and Landscape Ecology, University of Greifswald, 2013 – 2018.

Teaching

At TU Dresden, I am/was involved in the following B.Sc./M.Sc. courses:

- ◇ *Analyse und ökonomische Bewertung der Holzproduktion von Waldbeständen* (B.Sc.), 2018 – 2019
- ◇ *Komplexe Exkursion Westdeutschland und die Niederlande* (B.Sc.), since 2019*
- ◇ *Waldwachstum und Umwelt* (B.Sc.), since 2020
- ◇ *Wissenschaftliches Arbeiten* (B.Sc.), since 2024
- ◇ *Assessment and Evaluation of Forest Resources* (M.Sc.), since 2018
- ◇ *Dendroecology* (M.Sc.), since 2018*
- ◇ *Forest Dynamics and Global Change* (M.Sc.), since 2018*

I have been a lecturer of the following B.Sc./M.Sc. courses at the University of Greifswald:

- ◇ *Botanisches Geländepraktikum* (B.Sc.), 2013 – 2016*
- ◇ *Kulturlandschaftsgeschichte** (B.Sc.), 2013 – 2018
- ◇ *Landschaftsökologische Exkursion* (B.Sc.), 2013 – 2017
- ◇ *Naturräume Nordostdeutschlands* (B.Sc.), 2014 – 2017
- ◇ *Statistik für Landschaftsökologen* (B.Sc.), 2016 – 2018*
- ◇ *Vegetationskunde* (B.Sc.), 2013 – 2017
- ◇ *Waldbau* (B.Sc.), 2016 – 2017
- ◇ *Climate Change and Ecosystem Dynamics* (M.Sc.), 2013 – 2015
- ◇ *Dendrochronology and -ecology* (M.Sc.), 2013 – 2017*

*Coordinator

Supervision

Ph.D. students *6 ongoing, 2 finished theses:*

Stolz, J. (2024). Growth, vitality and stability: Spatio-temporal responses of European beech and Scots pine to climate change. TU Dresden, Germany.

co-supervision Weigel, R. (2019). The ecological and biogeochemical importance of snow cover for temperate forest ecosystems. University of Greifswald, Germany.

M.Sc. students *3 ongoing, 11 finished theses:*

Weise, K. (2024). Climate sensitivity of sweet chestnut (*Castanea sativa* Mill.) along a gradient of soil water availability in Rhineland-Palatinate, Germany. M.Sc. thesis, TU Dresden.

Wehnert, T. (2023). Analyse der Entwicklung und Dynamik von Buchenwäldern (*Fagus sylvatica* L.) auf Naturwaldreferenzflächen in Serrahn (Müritznationalpark, Deutschland) - Untersuchung der Waldstruktur. M.Sc. thesis, TU Dresden.

Husna, Asmaul (2023). Multispecies tree-ring based streamflow reconstruction in Parvati valley, Western Himalaya. M.Sc. thesis, TU Dresden, Germany.

Dreier, M. (2022). Wachstumskundlicher Vergleich der Baumarten *Pinus sylvestris* und *Betula pendula* im Rein- und Mischbestand auf einem Endmoränenstandort. M.Sc. thesis, TU Dresden.

Bloß, K. & Porsch, C. (2021). Abnahme der Dürre-Sensitivität von Waldkiefer (*Pinus sylvestris*) auf historischen Meilerrelikten in der Oberlausitz (Sachsen) - Dendrochronologische Untersuchungen zu Klima-Wachstums-beziehungen und Weiserjahren. M.Sc. thesis, TU Dresden, Germany.

Essl, L. (2020). Unterscheidet sich die Wuchsdynamik und Klimasensitivität von früh- und spätaustreibenden Rotbuchen? – eine dendroökologische Analyse im Müritznationalpark. M.Sc. thesis, TU Dresden, Germany.

Kalanke, H. (2019). Drought sensitivity of Scots pine (*Pinus sylvestris* L.) along a precipitation gradient in Mecklenburg-West Pomerania. M.Sc. thesis, TU Dresden, Germany.

Schmeddes, J. (2018). Dendrochronological analysis of different tree species from a tropical dry forest in Guanacaste, NW Costa Rica. M.Sc. thesis, University of Greifswald, Germany.

Pape, J. (2016). Impact of weather and climate variability on growth of three coexisting broadleaved tree species in Eldena forest. M.Sc. thesis, University of Greifswald, Germany.

Cole, J. (2015). Using wood density to investigate growth divergence in white spruce from the Brooks Range, Alaska. M.Sc. thesis, University of Greifswald, Germany.

Bergsma, A. (2011). Impact of climate change on European forest growing stock volumes. M.Sc. thesis, Wageningen University and Research Centre, the Netherlands.

B.Sc. students

1 ongoing, 17 finished theses:

Heidler, J. & Ullrich, L. (2024). Intraspezifische Variation der Klimasensitivität der Rotbuche (*Fagus sylvatica* (L.)) entlang eines Klimagradienten in Deutschland. B.Sc. thesis, TU Dresden, Germany.

Reißmann, A. (2023). Untersuchung der Klimasensitivität der Gemeinen Fichte (*Picea abies* (L.) Karst.) entlang eines Höhengradienten am Auersberg, Forstbezirk Eibenstock. B.Sc. thesis, TU Dresden.

Bohn, A. (2022). Vergleich von vitalen und nicht vitalen Individuen von *Fagus sylvatica* hinsichtlich der Klimasensitivität im Nationalpark Hainich. B.Sc. thesis, TU Dresden.

Staffeld, P.T. (2022). Dendrochronologische Untersuchung von Stieleichen (*Quercus robur* L.) hinsichtlich der Klimasensitivität auf unterschiedlichen Standorten in Mecklenburg-Vorpommern. B.Sc. thesis, TU Dresden.

Bennewitz, D. (2021). Wachstumsreaktionen eines Kiefernbestandes bei Lampertswalde (Sachsen): abgenommene Trockensensitivität trotz Klimawandel. B.Sc. thesis, TU Dresden, Germany.

Saupe, E. (2020). Zuwachsreaktionen von ausgewählten Fichten-Klonen mit unterschiedlicher SO₂-Toleranz auf Trockenstress. B.Sc. thesis, TU Dresden, Germany.

Maß, D. (2018). Variation der Frühjahrsphänologie bei Rotbuchen (*Fagus sylvatica* L.) unter Betrachtung der innerartlichen Konkurrenz. B.Sc. thesis, University of Greifswald, Germany.

Sönnichsen, H. (2018). Dendroklimatische Untersuchungen an *Picea abies* im Waldgrenzökoton in der Lifjell-Bergregion, Norwegen. B.Sc. thesis, University of Greifswald, Germany.

Sielaff, E. (2017). Klima-Wachstumsbeziehungen der Stieleiche (*Quercus robur* L.) in der Rostocker Heide – ein Vergleich zwischen einer bewirtschafteten und nicht bewirtschafteten Waldfläche. B.Sc. thesis, University of Greifswald, Germany.

Lichtenau, S. (2017). Waldverjüngung und Wildverbiss im Karlsburger Oldenburger Holz, Revier Buddenhagen und Revier Jagdkrug im Vergleich. B.Sc. thesis, University of Greifswald, Germany.

Denfeld, G. (2016). Auswirkungen des Klimas und hydrologischer Schwankungen auf das Wachstum der Waldkiefer (*Pinus sylvestris* L.) und der Schwarz-Erle (*Alnus glutinosa* L.) im Kramsbruch, Müritz Nationalpark. B.Sc. thesis, University of Greifswald, Germany.

Iwanowski, J. (2016). Auswirkungen kleinräumiger Bodenvariabilität auf das Wachstum und die Klimasensitivität der Rotbuche (*Fagus sylvatica* L.) im Nationalpark Jasmund. B.Sc. thesis, University of Greifswald, Germany.

Kurzböck, C. (2016). Vergleich von Wachstum und Klimasensitivität zweier Rotbuchen-Altbestände im Müritz-Nationalpark. B.Sc. thesis, University of Greifswald, Germany.

Mehl, A. (2016). Der Einfluss der Harzung auf die Klimasensitivität der Waldkiefer (*Pinus sylvestris*). B.Sc. thesis, University of Greifswald, Germany.

Rossa, H. (2016). Dendroprovenancing des Dachstuhles der Marienkirche, Greifswald. B.Sc. thesis, University of Greifswald, Germany.

Henke, S. (2015). Vergleich der Pflanzendiversität zweier Grünflächen mit unterschiedlicher Nutzung in den Ryckwiesen westlich von Greifswald. B.Sc. thesis, University of Greifswald, Germany.

Räbiger, C. (2014). Dendroökologische Untersuchungen in Jänschwalde Ost. Haben Holzkohlemeilerrückstände im Boden einen Einfluss auf das Wachstum von *Pinus sylvestris*? B.Sc. thesis, University of Greifswald, Germany.

Interns

2 finished research traineeships:

Haupt, S. (2017). Der Einfluss von Salzwasser auf das Wachstum der Kiefern (*Pinus sylvestris*) im Darßwald – eine dendroökologische Untersuchung. Report, University of Greifswald / University of Rostock, Germany.

Pape, J. (2015). Seasonal growth patterns of three broadleaved tree species in relation to monthly climate in Eldena forest. Report, University of Greifswald, Germany.

Skills & Qualifications

Familiar software packages

Microsoft Office, L^AT_EX
R, Matlab, SPSS
CooRecorder/CDendro
WinDendro/WinCell
QGIS

Languages

Dutch (native)
English (fluent)
German (fluent)
French (basic)

Tharandt, March 2, 2024