

Curriculum vitae

Prof. Dr. E.C.D. (Ernst) van der Maaten



Contact information

Work address

TU Dresden

Institute of Forest Growth and Forest Computer Sciences

Chair of Forest Growth and Woody Biomass Production

Pienner Str. 8, 01737 Tharandt, Germany

Email: ernst.vandermaaten@tu-dresden.de

Tel.: +49 (0)351 463 31846

Personal Details

Date of birth: 9th of May, 1985

Place of birth: Epe, the Netherlands

Working experience

- since 05/2025 ***Professor in Dendrosciences***, Chair of Forest Growth and Woody Biomass Production, TU Dresden, Germany.
- 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.
Supervisor: Prof. H. Spiecker.
- 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

- 09/2025 **German Forest Science Prize 2025** (15,000 EUR personal prize + 35,000 EUR research funding); the most highly endowed forest science award in the German-speaking world; awarded by the Eva Mayr-Stihl Stiftung.
- 12/2021 **Teaching Prize** (1,000 EUR) for extraordinary commitment in teaching; awarded by 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

Google Scholar statistics (17.12.2025): citations = 4,445, *h*-index = 32, *i10*-index = 54.

Find a list of my journal publications at the end of this CV.

Grants / Raised funding

- 2025 **Research grant** of the Eva Mayr-Stihl Stiftung to the research project ‘Kombinierte Isotopenanalysen zur Förderung der Forschung über klimaresiliente Wälder: Studien an der Rotbuche, der Orientbuche und ihren Hybriden (IsoWald)’ (10/2025–09/2028; 35,000 EUR); PI.
- 2024 **Research grant** of the FNR ‘Nachhaltige Erneuerbare Ressourcen’ to the collaborative research project ‘*Fagus orientalis* as alternative tree species under climate change – identification of high-quality seed sources based on genetic and phenotypic characterization (ORIENT-BUCHE)’ (12/2024–11/2027; total funding: 2.2m EUR, own share: 265,354 EUR); PI.
- 2022 **Research grant** 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 EUR, own share: 353,896 EUR); PI.
- 2019 **Financial support** 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’ (4,600 EUR).

2016	<i>Scholarship</i> of the German Scientific Exchange Service ‘DAAD’ to attend AmeriDendro 2016 in Mendoza, Argentina (2,200 EUR).
2014	<i>Invited participant</i> to COST Strategic Event ‘A scientific roadmap for projections of global change impacts on forests’, Sarajevo, Bosnia and Herzegovina; grant of COST Office (1,000 EUR).
2011	<i>Short-term scientific mission</i> (STSM) to Wageningen University; grant of COST Action ECHOES (2,200 EUR).
2010	<i>Meeting support</i> 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 (12,000 EUR).

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.
Commissioner	Study Commission for B.Sc./M.Sc. studies ‘Forest Sciences’, TU Dresden, since 09/2020.
Reviewer	For ISI-listed journals such as: <i>Agricultural and Forest Meteorology – Annals of Forest Science – Climatic Change – Dendrochronologia – European Journal of Forest Research – Forest Ecology and Management – Forestry – Global Change Biology – Journal of Biogeography – Scientific Reports – Trees – Quaternary International.</i>

Former activities:

Examiner/reviewer	<i>Ph.D. theses:</i> Resente, G.A. (2024). CARROT and INBD: Accessible Artificial Intelligence facilitates Quantitative Wood Anatomy. University of Greifswald, Germany. Neycken, A.J.M. (2024). The 2018 drought and European beech dieback: A dendroecological analysis of predisposition factors and recovery patterns. ETH Zürich, Switzerland. Power, C.C. (2023). A Greener Greenland? Assessing Arctic shrub dynamics using dendroecology. Aarhus University, Denmark. Tumajer, J. (2018). Quantitative vessel parameters of broadleaves as a tool for reconstruction of physical geographical processes. Charles University Prague, Czech Republic.
Treasurer	<i>Association for Tree-Ring Research</i> , 04/2018 – 05/2022.
Commissioner	Search Committee for the ‘Chair of / Junior Professorship for Geosensor Systems’ (W2 / W1), TU Dresden, 05/2020 – 01/2021.
Board member	<i>Association for Tree-Ring Research</i> , Early-Career Scientist Commissioner, 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 B.Sc./M.Sc. courses listed below. My teaching load is 8 SWS.

- ◇ *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.), 2018 – 2024
- ◇ *Dendroecology* (M.Sc.), since 2018*
- ◇ *Forest dynamics and global change* (M.Sc.), since 2018*
- ◇ *Monitoring forest growth using ground-based and remote sensing methods* (M.Sc.), since 2025

At the University of Greifswald, I have been a lecturer in the B.Sc./M.Sc. courses listed below. My teaching load was 4 SWS.

- ◇ *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	<i>5 ongoing, 4 finished theses:</i>
<i>co-supervision</i>	Kormann, J. (2024). Growth and climate sensitivity of Northern red oak (<i>Quercus rubra</i> L.) provenances in Central Europe. Ph.D. thesis, TU Dresden, Germany.
<i>co-supervision</i>	Liepe, K. (2024). Re-utilizing forest genetic trials to inform reforestation during a time of rapid climate change. Ph.D. thesis, TU Dresden, Germany.
<i>co-supervision</i>	Stolz, J. (2024). Growth, vitality and stability: Spatio-temporal responses of European beech and Scots pine to climate change. Ph.D. thesis, TU Dresden, Germany.
<i>co-supervision</i>	Weigel, R. (2019). The ecological and biogeochemical importance of snow cover for temperate forest ecosystems. Ph.D. thesis, University of Greifswald, Germany.

M.Sc. students*14 finished theses:*

Wegener, M. (2025). Provenance without effect? Climate–growth relationships and drought tolerance in a Scots pine (*Pinus sylvestris* L.) provenance trial in northeastern Germany. M.Sc. thesis, TU Dresden, Germany.

Wustmann, F. (2025). Einfluss von Baumartenwahl und Bodenbearbeitung im Voranbau auf das Wachstum und die Klimasensitivität überständiger Kiefer (*Pinus sylvestris* L.) in der Oberlausitz (Sachsen). M.Sc. thesis, TU Dresden, Germany.

Dockweiler, N. & Hasenauer, C.V. (2024). Wuchsleistung und Klimasensitivität der Gelb-Kiefer und Dreh-Kiefer im Vergleich zur heimischen Wald-Kiefer und Gemeinen Fichte im Thüringen Forstamt Bad Berka. M.Sc. thesis, TU Dresden, Germany.

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, Germany.

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, Germany.

Husna, A. (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, Germany.

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

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.

Morawetz, L. (2024). Klimasensitivität von sechs Douglasien-Herkünften unter subkontinentalen Bedingungen in Sachsen. 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, Germany.

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

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.

Iwanowksi, 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.

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/RStudio
CooRecorder/CDendro, ROXAS
QGIS

Languages

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

Journal publications

70. International Tree Mortality Network, Senf, C., Esquivel-Muelbert, A., Pugh, T.A., Anderegg, W.R., Anderson-Teixeira, K.J., ..., **van der Maaten, E.** & van der Maaten-Theunissen, M. (2025) Towards a global understanding of tree mortality. *New Phytologist* **245**: 2377-2392. doi: 10.1111/nph.20407
69. Jetschke, G., **van der Maaten, E.** & van der Maaten-Theunissen, M. (2025) Corrigendum to “Pointer years revisited: Does one method fit all? A clarifying discussion” [Dendrochronologia 78 (2023) 126064]. *Dendrochronologia* **91**: 126323. doi: 10.1016/j.dendro.2025.126323
68. Kaiser, K., Kasprzak, M., Adameková, K., Błaś, M., de Boer, A., Derner, K., Duma, P., Kočár, P., Latocha-Wites, A., Opała-Owczarek, M., Owczarek, P., Petr, L., Petřík, J., Tábořík, P., **van der Maaten, E.** & van der Maaten-Theunissen, M. (2025). Deciphering Sudetic landscape history by using alluvial geoarchives: Holocene environmental changes at Hala Izerska, SW Poland. *Catena* **254**: 108943. doi: 10.1016/j.catena.2025.108943

67. Neubauer, G., **van der Maaten, E.**, Hemker, C. & van der Maaten-Theunissen, M. (2025). The underground forest: Tracing forest history in the Erzgebirge through the wood finds from the medieval silver mines of Dippoldiswalde. *Dendrochronologia* **94**: 126429. doi: 10.1016/j.dendro.2025.126429
66. Popa, A., Jevšenak, J., Dyderski, M., Puchałka, R., Buras, A., Popa, I., Wilmking, M., Kalisty, A., Constantin Roibu, C., Jakubowski, M., Thurm, E., Šenfeldr, M., Smiljanić, M., **van der Maaten, E.**, ..., Klisz, M. (2025). Spatiotemporal variability of dendroecological indicators in Pedunculate oak (*Quercus robur* L.) tree-rings across Europe in relation to species distribution models. *Global Change Biology* **31**: e70567. doi: 10.1111/gcb.70567
65. Unterholzner, L., Stolz, J., van der Maaten-Theunissen, M., Liepe, K. & **van der Maaten, E.** (2025). Phenotypic plasticity and inter-individual variability in *Fagus sylvatica* L. xylem traits challenge assisted migration. *Science of The Total Environment* **1002**: 180596. doi: 10.1016/j.scitotenv.2025.180596
64. **van der Maaten, E.**, Jetschke, G. & van der Maaten-Theunissen, M. (2025) Rethinking 'clearcut' methods: Embracing methodological diversity in pointer-year detection. *Dendrochronologia* **91**: 126323. doi: 10.1016/j.dendro.2025.126323
63. Weise, K., van der Maaten-Theunissen, M., Seitz, G., Keller, T. & **van der Maaten, E.** (2025). Future suitability of sweet chestnut (*Castanea sativa* Mill.) is limited by susceptibility to drought. *Dendrochronologia* **90**: 126299. doi: 10.1016/j.dendro.2025.126299
62. 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
61. 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* **143**: 917-942. doi: 10.1007/s10342-024-01665-1
60. Klesse, S., Peters, R., Alfaro-Sanchez, R., ..., **van der Maaten, E.**, van der Maaten-Theunissen, M., Vannoppen, A., Vasickova, I., von Arx, G., Wilmking, M., Weigel, R., Zlatanov, T., Zang, C. & Buras, A. (2024). No future growth enhancement expected at the northern edge for European beech due to continued water limitation. *Global Change Biology* **30**: e17546. doi: 10.1111/gcb.17546
59. Kormann, J.M., **van der Maaten, E.**, Liesebach, M., Liepe, K.J. & van der Maaten-Theunissen, M. (2024). High risk, high gain? Trade-offs between growth and resistance to extreme events differ in northern red oak (*Quercus rubra* L.). *Frontiers in Plant Science - Section Functional Plant Ecology* **15**: 1374498. doi: 10.3389/fpls.2024.1374498
58. Kormann, J.M., van der Maaten-Theunissen, M., Unterholzner, L., Liesebach, M., Liepe, K. & **van der Maaten, E.** (2024). Variation in vessel traits of northern red oak (*Quercus rubra* L.) provenances revealed high phenotypic plasticity to prevailing environmental conditions. *Trees* **38**: 1283-1295. doi: 10.1007/s00468-024-02557-y
57. Leifsson, C., Buras, A., Klesse, S., Baittinger, C., Bat-Enerel, B., Battipaglia, G., Biondi, F., Stajić, B., Budeanu, M., Čada, V., Camarero, J.J., Cavin, L., Claessens, H., Čufar, K., de Luis, M., Dorado-Liñán, I., Dulamsuren, C., Garamszegi, B., Grabner, M. Hackett-Pain, A., Hansen, J.K., Hartl, C., Huang, W., Janda, P., Jump, A.S., Kazimirović, M., Knutzen, F., Kreyling, J., Land, A., Latte, N., Lebourgeois, F., Leuschner, C., Longares, L.A., del Castillo,

- E.M., Menzel, A., Motta, R., Muffler-Weigel, L., Nola, P., Panayatov, M., Petritan, A.M., Petritan, I.C., Popa, I., Roibu, C.C., Rubio-Cuadrado, A., Rydval, M., Scharnweber, T., Svoboda, M., Toromani, E., Trotsiuk, V., van der Maaten-Theunissen, M., **van der Maaten, E.**, Weigel, R., Wilmking, M., Zlatanov, T., Rammig, A. & Zang, C. (2024). Identifying drivers of non-stationary climate-growth relationships of European beech. *Science of the Total Environment* **937**: 173321. doi: 10.1016/j.scitotenv.2024.173321
56. 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* **143**: 831-845. doi: 10.1007/s10342-024-01656-2
55. 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
54. Popa, A., van der Maaten-Theunissen, M., Popa, I., Badea, O. & **van der Maaten, E.** (2024). Spruce suffers most from drought at low elevations in the Carpathians, though shows high resilience. *Forest Ecology and Management* **571**: 122201. doi: 10.1016/j.foreco.2024.122201
53. Thurm, E.A., **van der Maaten, E.**, van der Maaten-Theunissen, M., Schröder, J. & Jütte, K. (2024). Buchenvitalitätsschwäche – Totgesagte leben länger! *AFZ-Der Wald* **6**: 36-39.
52. Tyrgotov, A., **van der Maaten, E.**, Gradel, A. & van der Maaten-Theunissen, M. (2024). Growth responses of Persian walnut (*Juglans regia* L.) to climate variation along its full elevational range in Kyrgyzstan. *Dendrochronologia* **85**: 126203. doi: 10.1016/j.dendro.2024.126203
51. Unterholzner, L., Stolz, J., van der Maaten-Theunissen, M., Liepe, K. & **van der Maaten, E.** (2024). Site conditions rather than provenance drive tree growth, climate sensitivity and drought responses in European beech in Germany. *Forest Ecology and Management* **572**: 122308. doi: 10.1016/j.foreco.2024.122308
50. **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
49. 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
48. 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
47. 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
46. 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
45. 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

44. 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
43. 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
42. 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
41. 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
40. Martinez 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
39. 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., Martinez-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
38. 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. & Urich, 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
37. 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.

36. 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
35. 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
34. 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
33. 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
32. Muffler, L., Weigel, R., Hacket-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
31. 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
30. 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
29. Harvey, J. E., Smiljanić, M., Scharnweber, T., Buras, A., Cedro, A., Cruz-García, R., Drobyshev, 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
28. 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
27. 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
26. 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
25. 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
24. **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
 23. 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
 22. 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
 21. 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
 20. **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
 19. **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
 18. 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
 17. 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
 16. Buras, A., van der Maaten-Theunissen, M., **van der Maaten, E.**, Ahlgrimm, S., Hermann, P., Simard, S., Heinrich, I., Helle, G., Unterseher, M., Schnittler, 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
 15. **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
 14. 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

13. 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
12. 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
11. **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
10. 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
9. 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
8. 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
7. 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
6. **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
5. **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
4. 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.
3. 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
2. **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
1. **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.

Tharandt, December 17, 2025