Marco Carrer

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Education

1997	Ph.D. Forest Ecology, University of Padova. Title: Dendroecology and spatial structure in a high-altitude forest in the Eastern Alps.
1993	Master Environmental engineering, University of Padova.
1993	Master Environmental Impact Assessment, University of Udine.
1991	M.S., with honor, Forest Science, University of Padova.

Awards, Fellowships, and Honors

2014	COST-STReESS Short-term Scientific Mission, CSIC, Saragoza, Spain.
2010	Erasmus Mundus SUTROFOR scholarship, Catie, Turrialba, Costa Rica.
1999	Agnese N. Haury short-term fellowship, Laboratory of Tree-Ring Research, University of Arizona, Tucson,
1997/98	National Research Council fellowship.
1996	Marchetti award for the best young researcher presentation, 7° National Congress of the Ecological Society of Italy.

Professional Employment and Academic Appointments

2021-	Full Professor, Dept. TeSAF, University of Padova.
2015-2021	Associate Professor, Dept. TeSAF, University of Padova.
2017	National full professor habilitation in Botany.
2014	National full professor habilitation in Forest ecology and management.
2005-2014	Assistant Professor, Dept. TeSAF, University of Padova.
1998-2005	Postdoc fellow, University of Padova.

Scientific and Professional Membership

2020-22	Associate researcher at the Institute of Atmospheric Sciences and Climate (ISAC) of the National Research Council (CNR) in Bologna (ITALY)
2020-	Q-NET – Research Network in Quantitative Woos Anatomy – Member and Co-founder
2018-	IAWA – Council member.
2017-	IAWA (International Association of Wood Anatomist).
2016-	ATR (Association of Tree-Ring Research).
2015-	PaGES (Past Global Changes) consortium.
2015-	Accademia Italiana di Scienze Forestali.
1997-	Società Italiana di Selvicoltura e Ecologia Forestale (SISEF).
1998-2013	Istituto Italiano di Dendrochonologia (up to its closure).

Student advising and mentoring

PhD student supervisor

2023- From the rear to the leading edge: assessing the climatic sensitivity of woody species in a global change era. (Eugenia Mantovani).

2021- Testing for early-warning signals of climate-related stressing conditions and maladaptation in shrubs and tree species (Davide Frigo).

2018-22 Living at the edge: anatomical and physiological responses of long-lived woody species to cope with extreme conditions (Lucrezia Unterholzner).

2017-21 Long-term effects of climate on tree growth analyzed through dendroanatomy (Paulina Puchi).

2018-20 Testing the dendroclimatic potential of peatland trees (Anna Dinella). University of Bozen – Co-supervisor.

2017-21 Range dynamics of Picea glauca (Timo Pampuch). University of Greifswald (D). Member of the advisory scientific committee.

2015-17 Dendroanatomy: a new approach to sharpen the focus on the climatic drivers of tree growth (Arturo Pacheco Solana).

2014-16 Climate trend and treeline dynamics in Nepal Himalaya (Narayan Prasad Gaire). Tribhuvan University, Kathmandu, Nepal – Co-supervisor.

2014-16 New research lines in dendroecology (Elena Pellizzari).

2008-10 Comparative analyses on structure and dynamics between virgin (Romania) and managed forests (Silvia Lamedica).

2007-09 Structure and dynamics of forest stands through long-term monitoring (Luca Soraruf).

MS supervisor He has been supervisor for 54 and co-supervisor for 22 master theses within the Forest and Environmental science degree.

BS supervisor He has been supervisor for 15 and co-supervisor for 5 master theses within the Forest and Environmental Techniques degree.

Research Projects – last 5 years

2023-25 PRIN22 – (Progetti di ricerca di Rilevante Interesse Nazionale) Back to the future: REtrospective and prospective insights in silver fir Adaptation to face the ClimaTe crisis (REACT). Principal Investigator.

2022-25 PNRR - National Research Centre for Agricultural Technologies (Agritech). Spoke 1: Plant, animal and microbial genetic resources and adaptation to climatic changes. PI for UNIPD of the task: Long-term and high-resolved analysis of xylem anatomical traits in trees to relate structure and functions.

2021-24 Parco Nazionale dell'Appennino Tosco-Emiliano: Improving forest resilience with assisted migration strategies. Scientific co-leader.

2020-22 Project funded by the Ministry of Agriculture of Chile on "Indicadores fenologicos y estrcturales de alteracion de habitat en bosques de araucaria". Collaboration between the Universidad de Chile and Università di Padova. Scientific co-leader.

2019 EU INTERACT Transnational Access "ARNOLD: Annual Rings to better understand long-term abiotic drivers of shrub growth at the Northernmost Limits of their Distribution". Funded by H2020 (Grant Agreement No. 730938) to sample arctic shrubs at Greenland, Iceland and Fær Øer.

Organized Workshops/Meeting

2020
- Co-organizer of the I° and II° Q-NET International virtual workshops.

2019
- Training School in "Quantitative Wood Anatomy using ROXAS", S.Vito di Cadore, June 17-21 (M.Carrer, G. von Arx, A. Crivellaro and A.L. Prendin organizers).

2018
- Training School in "Quantitative Wood Anatomy using ROXAS", S.Vito di Cadore, June 25-29 (M.Carrer, G. von Arx, A. Crivellaro and A.L. Prendin organizers).

2017
- International Summer School in " Dendroecology, Quantitative Wood Anatomy and Stable Isotopes: from xylogenesis to tree rings", Università Federico II, Portici, September 25-29 (G. Battipaglia, M. Carrer and V. De Micco organizers).
- Training School in "Quantitative Wood Anatomy using ROXAS", University of Arizona, Tucson, March 20-24 (G. von Arx e A. Crivellaro, A.L. Prendin and K. Morino organizers).

2016	• Training School in "Quantitative Wood Anatomy using ROXAS", S.Vito di Cadore, June 20-24 (M.Carrer, G. von Arx and A. Crivellaro organizers).
2015	• COST Action FP1106 STREESS. Training School in "Quantitative Wood Anatomy: from Sample to Data", S.Vito di Cadore, June 8-12 (M.Carrer, G. von Arx and A. Crivellaro organizers).
2014	• COST Action FP1106 STREESS. Training School in "Quantitative Wood Anatomy: from Sample to Data", Birsemdorf (CH), November 18-21 (G. von Arx, M.Carrer, A. Crivellaro and K. Cufar organizers).
2013	• COST TERRABITES. Workshop on Large-Scale Modeling of Forest Disturbance and Age Dynamics, S.Vito di Cadore, September 23-26 (B. Poulter, J. Pongratz, M.Carrer and J.O. Kapland organizers and scientific committee).
2012	• European Dendroecological Fieldweek 2013, August 26-30 (M.Carrer, A. Crivellaro and K. Treydte organizers).
2009-2010	• European Dendroecological Fieldweek 2012, September 9-15 (M.Carrer, K. Treydte and D. Frank organizers).
2008	• Dendrochronological techniques, S.Vito di Cadore, May 11-14 (M. Carrer and P. Fonti organizers).
1996	• *Joint Summer Module within the European Erasmus Mundus MSc in Sustainable Forest and Nature Management (SUFONAMA)*, S.Vito di Cadore, July 26 – August 6 (V. D'Agostino and M. Carrer organizers). • *XXXIII Ecology Meeting – Dendroecology, a science between past and present.* University of Padova, S. Vito di Cadore (BL) (C. Urbinati and M. Carrer organizers).

International editor and reviewer

2018 -	Editorial Board Member of the IAWA Journal.
2018 -	Associate Editor of Tree-Ring Research.
Reviewer for:	African Journal of Agricultural Research, African Journal of Biotechnology, Annals of Botany, Annals of Forest Science, Canadian Journal of Forest Research, Climate research, Climatic Change, Communication Earth & Environment, Computers and Electronics in Agricolture, Dendrochronologia, Ecography, Ecological Bulletin, Ecology Letters, Ecoscience, Ecosystems, Environmental and Experimental Botany, European Journal of Forest Research, Forest Ecology and Management, Frontiers in Plant Science, Global Ecology and Biogeography, Global Change Biology, iForest, International Journal of Climatology, Journal of Biogeography, Journal of Ecology, Journal of Hydrology, Journal of Plant Research, Journal of Quaternary Science, Journal of Vegetation Science, Landscape Ecology, Methods in Ecology and Evolution, Nature, Nature Plants, New Phytologist, One Earth, Plant Biology, Plant Ecology, Plant Diversity & Distribution, PLoS ONE, Progress in Physical Geography, Scandinavian Journal of Forest Research, Science of the Total Environment, Silva Fennica, Theoretical and Applied Climatology, Trees-Structure and Function, Trends in Plant Science, Tree Physiology, Forest@.

Scientific expeditions and related activities

2021	*Sweden, Finland and Norway. Organized and participated to the sampling campaign, financed by the* EU INTERACT project*, to collect common Juniper samples for establish a European-wide tree-ring network of this species.*
2019	*Iceland and Greenland. Organized and participated to the sampling campaign, financed by the* EU INTERACT project*, to collect common Juniper samples for establish a European-wide tree-ring network of this species.*
2019	*Cile and Argentina. Organized and participated to the sampling campaign, financed by the Rufford Foundation, in the Bio Bio, Araucania e Lanin National Park areas, to study the declining phenomena in Araucaria araucana.*
2010	*Nicaragua - Rivas. Installation of sap-flaw meters on several tree species in pasture land within the project FunciTree (*http://funcitree.nina.no/).
2009	*Romania - Suceava. Together with Ionel Popa to established in the Slatioara and Giumalau national reserves two 4 ha permanent plots in a mixed fir, spruce and beech and in a pure spruce virgin forests.*

2009	*Nepal - Kathmandu. He established the first tree-ring analyses laboratory of Nepal at the NAST and held a training course in dendrochronology.*
2008	*Nepal - Sagarmatha National Park (March 30-April 21) to finish the previous-year field work and to carry on some dendroclimatic sampling even in the adjacent Gokyo Valley.*
2007	*Nepal - Sagarmatha National Park (May 2-25) in collaboration with Dr. Dinesh Bujiu of the National Academy of Science and Technology of Nepal (NAST), to established two 1-ha permanent plots at high elevation (3800 and 4000 m).*

Workshops, Meetings and Conferences

I attended more than 60 workshops and Conferences, both national and international and also as invited speaker.

Other activities

1992/96	Monitoring program of lynx in Trento Province, supervisor Prof. B. Ragni, University of Perugia.

Book

Ragni B., Possenti M., Mayr S., Carrer M., Zangrando E., Dorigatti E., Lombardi G., (1998). La Lince eurasiatica in Trentino. Provincia Autonoma di Trento, Giunta, Servizio Parchi e Foreste Demaniali, Collana Naturalistica n. 6: pp. 152.

Publications

I wrote as author or co-author more than 120 (96 ISI) publications in total, as of 10/23. Mean and cumulated Impact Factor on ISI journals are 5.6 and 517. H Index is 42.
ORCID: http://orcid.org/0000-0003-1581-6259
Scopus: https://www.scopus.com/authid/detail.uri?authorId=6602282694
Hereafter the most significant papers. With "*" the paper published by students, PhD or postdoc under my supervision.

- Unterholzner, L.*, D. Castagneri, R. Cerrato, M.-I. Ştirbu, C.-C. Roibu, and M. Carrer. 2024. Climate response of a glacial relict conifer across its distribution range is invariant in space but not in time. Science of The Total Environment 906:167512.
- Käber, Y., C. Bigler, J. HilleRisLambers, M. Hobi, T. A. Nagel, T. Aakala, M. Blaschke, P. Brang, B. Brzeziecki, M. Carrer, E. Cateau, G. Frank, S. Fraver, J. Idoate-Lacasia, J. Holik, S. Kucbel, A. Leyman, P. Meyer, R. Motta, P. Samonil, L. Seebach, J. Stillhard, M. Svoboda, J. Szwagrzyk, K. Vandekerkhove, O. Vostarek, T. Zlatanov, and H. Bugmann. 2023. Sheltered or suppressed? Tree regeneration in unmanaged European forests. Journal of Ecology 111:2281-2295.
- Kseniia, A. T., A. Alberto, C. Marco, A. V. Eugene, and V. K. Alexander. (2023). Contribution of Russian dendroanatomical studies to the dendrochronology since the mid-20th century. Dendrochronologia:126128.
- J. Björklund, K. Seftigen, M. Stoffel, M.V. Fonti, S. Kottlow, D.C. Frank, J. Esper, P. Fonti, H. Goosse, H. Grudd, B.E. Gunnarson, D. Nievergelt, E. Pellizzari, M. Carrer* & G. von Arx* (2023). Fennoscandian tree-ring anatomy shows a warmer modern than medieval climate. Nature 620: 97-103. [*Contributed equally].
- Frigo D*, Eggertsson Ó, Prendin AL, Dibona R, Unterholzner L, Carrer M. (2023). Growth form and leaf habit drive contrasting effects of Arctic amplification in long-lived woody species. Global Change Biology.
- Petit, G., M. Mencuccini, M. Carrer, A. L. Prendin, and T. Hölttä. (2023). Axial conduit widening, tree height, and height growth rate set the hydraulic transition of sapwood into heartwood. Journal of Experimental Botany.
- Carrer, M., Dibona, R., Prendin, A. L., Brunetti, M. (2023). Recent waning snowpack in the Alps is unprecedented in the last six centuries. Nature Climate Change 13: 155-160.
- Cerrato R, Salvatore MC, Carrer M, Brunetti M, Baroni C. Blue intensity of Swiss stone pine as a high-frequency temperature proxy in the Alps. European Journal of Forest Research. 2023;142:933-48.
- Tonelli E, Vitali A, Malandra F, Camarero JJ, Colangelo M, Nolè A, Ripullone F, Carrer M, Urbinati C. (2022). Tree-ring and remote sensing analyses uncover the role played by elevation on European beech sensitivity to late spring frost. Science of The Total Environment: 159239.

- Gennaretti, F., Carrer M., García-González, I., Rossi, S., & von Arx, G. (2022). Editorial: Quantitative wood anatomy to explore tree responses to global change. Frontiers in Plant Science, 13:998895.
- Ştirbu M-I, Roibu C-C, Carrer M, Mursa A, Unterholzner L, Prendin AL. (2022). Contrasting Climate Sensitivity of Pinus cembra Tree-Ring Traits in the Carpathians. Frontiers in Plant Science 13:855003.
- Unterholzner L*, Prendin AL, Dibona R, Menardi R, Casolo V, Gargiulo S, Boscutti F, Carrer M. 2022. Transient Effects of Snow Cover Duration on Primary Growth and Leaf Traits in a Tundra Shrub. Frontiers in Plant Science 13: 822301.
- Prendin AL, Normand S, Carrer M, Bjerregaard Pedersen N, Matthiesen H, Westergaard-Nielsen A, Elberling B, Treier UA, Hollesen J. 2022. Influences of summer warming and nutrient availability on Salix glauca L. growth in Greenland along an ice to sea gradient. Scientific Reports 12: 3077.
- von Arx G, Carrer M, Crivellaro A, De Micco V, Fonti P, Lens F, Prendin AL, Rosner S, Sass-Klaassen U. (2021). Q-NET – a new scholarly network on quantitative wood anatomy. Dendrochronologia 70: 125890.
- Puchi, P. F.*, J.J. Camarero, G. Battipaglia and M. Carrer (2021). Retrospective analysis of wood anatomical traits and tree-ring isotopes suggests site-specific mechanisms triggering Araucaria araucana drought-induced dieback. Global Change Biology. Accepted.
- Tumajer, J., Buras, A., Camarero, J.J., Carrer, M., Shetti, R., Wilmking, M., Altman, J., Sangüesa-Barreda, G. and Lehejček, J., (2021). Growing faster, longer or both? Modelling plastic response of Juniperus communis growth phenology to climate change. Global Ecology and Biogeography 30: 2229-2244.
- Dinella, A.*, F. Giammarchi, A-L. Prendin, M. Carrer., G. Tonon. 2021. Xylem traits of peatland Scots pines reveal a complex climatic signal: A study in the Eastern Italian Alps. Dendrochronologia 67:125824.
- Camarero JJ, Gazol A, Sánchez-Salguero R, Fajardo A, McIntire EJB, Gutiérrez E, Batllori E, Boudreau S, M Carrer, Diez J, Dufour-Tremblay G, Gaire NP, Hofgaard A, Jomelli V, . Kirdyanov A, Lévesque E, Liang E, Linares JC, Mathisen IE, Moiseev PA, Sangüesa-Barreda G, Shrestha KB, Toivonen JM, Tutubalina OV and Wilmking M. 2021. Global fading of the temperature-growth coupling at alpine and polar treelines. Global Change Biology 27: 1879-1889.
- Prendin AL, M. Carrer, Bjerregaard Pedersen N, Normand S, Hollesen J, Treier UA, Pividori M, Garbrecht Thygesen L. 2021. Chemical signature of Eurois occulta L. outbreaks in the xylem cell wall of Salix glauca L. in Greenland. Science of the Total Environment: 764:144607.
- Unterholzner, L.*, M. Carrer, A. Bär, B. Beikircher, B. Dämon, A. Losso, A. L. Prendin, and S. Mayr. 2020. Juniperus communis populations exhibit low variability in hydraulic safety and efficiency. Tree Physiology 40:1668-1679.
- Pandey, S., P. Cherubini, M. Saurer, M. Carrer, and G. Petit. 2020. Effects of climate change on treeline trees in Sagarmatha (Mt. Everest, Central Himalaya). Journal of Vegetation Science 31:1146:1155.
- Kiorapostolou N., Camarero J.J., Carrer M., Sterck F., Brigita B., Sangüesa-Barreda G., Petit G. (2020) Scots pine trees react to drought by increasing xylem and phloem conductivities. Tree Physiology. Online Early.
- Lange, J., M. Carrer, M.F.J. Pisaric, T.J. Porter, J.W. Seo, M. Trouillier and M. Wilmking (2020) Moisture-driven shift in the climate sensitivity of white spruce xylem anatomical traits is coupled to large-scale oscillation patterns across northern treeline in northwest North America. Global Change Biology 26:1842-1856.
- Puchi, P. F.*, D. Castagneri, S. Rossi, and M. Carrer (2020). Wood anatomical traits in black spruce reveal latent water constraints on the boreal forest. Global Change Biology 26:1767-1777.
- Castagneri, D.*, M. Carrer, L. Regev, and E. Boaretto (2020). Precipitation variability differently affects radial growth, xylem traits and ring porosity of three Mediterranean oak species at xeric and mesic sites. Science of the Total Environment 699:134285.
- Pacheco, A.*, J. J. Camarero, M. Pompa-García, G. Battipaglia, J. Voltas, and M. Carrer (2020). Growth, wood anatomy and stable isotopes show species-specific couplings in

three Mexican conifers inhabiting drought-prone areas. Science of the Total Environment 698:134055.

- A. L. Prendin*, M. Carrer, M. Karami, J. Hollesen, N. Bjerregaard Pedersen, M. Pividori, U. A. Treier, A. Westergaard-Nielsen, B. Elberling and S. Normand (2019). Immediate and carry-over effects of insect outbreaks on vegetation growth in West Greenland assessed from cells to satellite. Journal of Biogeography .
- M. Carrer, E. Pellizzari, A.L. Prendin, M. Pividori and M. Brunetti (2019). Winter precipitation - not summer temperature - is still the main driver for Alpine shrub growth. Science of The Total Environment 682: 171-179.
- De Micco, V., M. Carrer, C. B. K. Rathgeber, J. J. Camarero, J. Voltas, P. Cherubini, and G. Battipaglia (2019) From xylogenesis to tree rings: wood traits to investigate tree response to environmental changes. IAWA Journal. In press.
- U. Buentgen, L. Wacker, D. Galvan, S. Arnold, D. Arseneault, M. Baillie, J. Beer, M. Bernabei, N. Bleicher, G. Boswijk, A. Bräuning, M. Carrer, F. Ljungqvist, P. Cherubini, M. Christl, D. Christie, P. Clark, E. Cook, R. D'Arrigo, N. Davi, O. Eggertsson, J. Esper, A. Fowler, Z. Gedalof, F. Gennaretti, J. Griessinger, H. Grissino-Mayer, H. Grudd, B. Gunnarson, R. Hantemirov, F. Herzig, A. Hessl, K.U. Heussner, T. Jull, V. Kukarskih, A. Kirdyanov, T. Kolar, P. Krusic, T. Kyncl, A. Lara, C. LeQuesne, H. Linderholm, N. Loader, B. Luckman, F. Miyake, V. Myglan, K. Nicolussi, C. Oppenheimer, J. Palmer, I. Panyushkina, N. Pederson, M. Rybnicek, F. Schweingruber, A. Seim, M. Sigl, O. Churakova (Sidorova), J. Speer, H.A. Synal, W. Tegel, K. Treydte, R. Villalba, G. Wiles, R. Wilson, L. Winship, J. Wunder, B. Yang, and G. Young (2018) Tree rings reveal globally coherent signature of cosmogenic radiocarbon events in 774 and 993 CE. Nature Communications 9, 3605.
- S. Klesse, F. Babst, S. Lienert, R. Spahni, F. Joos, O. Bouriaud, M. Carrer, A. Di Filippo, B. Poulter, V. Trotsiuk, R. Wilson and D.C. Frank (2018) A combined tree-ring and vegetation model assessment of European forest growth sensitivity to inter-annual climate variability. Global Biogeochemical Cycles 32: 1226-1240.
- Carrer M., Unterholzner L., Castagneri D. (2018) Wood anatomical traits highlight complex temperature influence on Pinus cembra at high elevation in the eastern Alps. International Journal of Biometeorology 9: 1745-1753.
- Pandey S.*, Carrer M, Castagneri D, Petit G (2018) Xylem anatomical responses to climate variability in Himalayan birch trees at one of the world’s highest forest limit Perspectives in Plant Ecology, Evolution and Systematics 33: 34-41.
- A. Pacheco*, J. J. Camarero and M. Carrer (2018) Shifts of irrigation in Aleppo pine under semi-arid conditions reveal uncoupled growth and carbon storage and legacy effects on wood anatomy. Agricultural and Forest Meteorology 253-254: 225-232.
- M. Carrer, D. Castagneri, I. Popa, M. Pividori and E. Lingua (2018) Tree spatial patterns and stand attributes in temperate forests: the importance of plot size, sampling design, and null model. Forest Ecology and Management 407: 125-134.
- A. Pacheco*, J. J. Camarero, M. Ribas, A. Gazol, E. Gutierrez and M. Carrer (2018) Disentangling the climate-driven bimodal growth pattern in coastal and continental Mediterranean pine stands. Science of the Total Environment 615: 1518-1526.
- Bosela, M., Lukac, M., Castagneri, D., Sedmák, R., Biber, P., M. Carrer, Konôpka, B., Nola, P., Nagel, T.A., Popa, I., Roibu, C.C., Svoboda, M., Trotsiuk, V. and Büntgen, U. (2018). Contrasting effects of environmental change on the radial growth of co-occurring beech and fir trees across Europe. Science of The Total Environment 615: 1460-1469.
- R Sánchez-Salguero, JJ Camarero, M. Carrer, E Gutiérrez, AQ Alla, LA Hayles, A Hevia, A Koutavas, E Martínez-Sancho, P Nola, A Papadopoulos, E Pasho, E Toromani, JA Carreira ann JC Linares (2017) Climate extremes and predicted warming threaten Mediterranean Holocene firs forests refugia. Proceedings of the National Academy of Sciences of the United States of America. 114, E10142-E10150.
- Bjorklund, J.; Seftigen, K.; Schweingruber, F.; Fonti, P.; von Arx, G.; Bryukhanova, M.V.; Cuny, H.E.; M. Carrer; Castagneri, D.; Frank, D.C. Cell size and wall dimensions drive distinct variability of earlywood and latewood density in northern hemisphere conifers. New Phytol. 2017, 216, 728-740.

- M. Morando, S.E. Favero-Longo, M. Carrer, E. Matteucci, J. Nascimbene, S. Sandrone, L. Appollonia and R. Piervettori (2017) Dispersal patterns of meiospores shape population spatial structure of saxicolous lichens. The Lichenologist 49 (4): 397-413.
- Prendin A.L., Petit G., M. Carrer, Fonti P., Björklund J. and von Arx G. (2017). New research perspectives from a novel approach to quantify tracheid wall thickness. Tree Physiology 37, 976-983. doi: 10.1093/treephys/tpx037.
- Pellizzari, E.*, J. J. Camarero, A. Gazol, E. Granda, R. Shetti, M. Wilmking, P. Moiseev, M. Pividori, and M. Carrer (2017) Diverging shrub and tree growth from the Polar to the Mediterranean biomes across the European continent. Global Change Biology. 23: 3169‐3180. DOI: 10.1111/gcb.13577.
- M. Carrer, D. Castagneri, A.L. Prendin, G. Petit and G. von Arx (2017) Retrospective analysis of wood anatomical traits reveals a recent extension in tree cambial activity in two high-elevation conifers. Frontiers in Plant Science 8: 737.
- Gaire, N. P.*, D. R. Bhuju, M. Koirala, S. K. Shah, M. Carrer, and R. Timilsena. (2017). Tree-ring based spring precipitation reconstruction in western Nepal Himalaya since AD 1840. Dendrochronologia 42: 21-30.
- Camarero, J. J. and M. Carrer (2017) Bridging long-term wood functioning and nitrogen deposition to better understand changes in tree growth and forest productivity. Tree Physiology 37: 1-3.
- D. Castagneri*, P. Fonti, G. von Arx, M. Carrer (2017) How does climate influence xylem morphogenesis over the growing season? Insights from long-term intra-ring anatomy in Picea abies. Ann Bot mcw274. doi: 10.1093/aob/mcw274
- Gaire, N. P.*, M. Koirala, D. R. Bhuju, and M. Carrer (2017) Site- and species-specific treeline responses to climatic variability in eastern Nepal Himalaya. Dendrochronologia 41: 44-56. Sino a tutto il 2018 è stato l’articolo più citato della rivista tra quelli pubblicati dal 2017 (fonte ISI).
- D. Castagneri*, L. Regev, E. Boaretto and M. Carrer (2017) Xylem anatomical traits reveal different strategies of two Mediterranean oaks to cope with drought and warming. Environmental and Experimental Botany, 133: 128-138.
- Nascimbene, J., S. Ackermann, M. Dainese, M. Garbarino, and M. Carrer (2016) Fine-scale population dynamics help to elucidate community assembly patterns of epiphytic lichens in alpine forests. Fungal Ecology 24, Part A:21-26.
- J. Esper, P. J. Krusic, F. Ljungqvist, J. Luterbacher, M. Carrer, E., N. K. Davi, C. Hartl-Meier, A. Kirdyanov, O. Konter, V. Myglan, M. Timonen, K. Treydte, V. Trouet, R. Villalba, R. S. Wilson, B. Yang, U. Büntgen (2016) Ranking of tree-ring based temperature reconstructions of the past millennium. Quaternary Science Review 145: 134-151.
- von Arx, G., A. Crivellaro, A. L. Prendin, K. Cufar, and M. Carrer (2016) Quantitative Wood Anatomy-Practical Guidelines. Frontiers in Plant Science 7: 781.
- M. Carrer, M. Brunetti, D. Castagneri (2016) The imprint of extreme climate events in century-long time series of wood anatomical traits in high-elevation conifers. Frontiers in Plant Science 7: 683.
- G. Battipaglia, F. Campelo, J. Vieira, M. Grabner, V. De Micco, C. Nabais, P. Cherubini, M. Carrer, A. Braeuning, K. Cufar, A. Di Filippo, I. García-González, M. Koprowski, M. Klisz, A. V. Kirdyanov, N. Zafirov, M. De Luis (2016) Structure and Function of Intra‐Annual Density Fluctuations: Mind the Gaps. Frontiers in Plant Science: 7: 595.
- Konter O., Büntgen U., M. Carrer, Timonen M. and Esper J. (2016) Climate signal age effects in boreal tree-rings: lessons to be learned for paleoclimatic reconstructions. Quaternary Science Review 142: 164-172.
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