

GVALERIE TROUET

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RESEARCH INTERESTS

Past, present, and future climate variability and its influence on forest ecosystems and human societies. My research on climate variability focuses on climate reconstruction over the Common Era, atmospheric circulation patterns, and extreme events. My research on forest ecosystems includes their role in the carbon cycle, forest disturbances, and dry tropical forests.

HISTORY OF EMPLOYMENT

University of Arizona, Laboratory of Tree-Ring Research

Professor of Dendrochronology, 2020-present

Associate Professor of Dendrochronology, 2015-2020

Assistant Professor of Dendrochronology, 2011-2015

Affiliated Faculty in:

Department of Hydrology and Atmospheric Sciences, 2017-present

Department of Geosciences, 2016-present

School of Natural Resources and the Environment, 2011-present

Graduate Interdisciplinary Program in Global Change, 2011-present

Graduate Interdisciplinary Program in Arid Lands, 2015-present (Executive Committee member since 2020)

Swiss Federal Institute for Forest, Snow, and Landscape Research WSL (ETH domain), Dendrosocieties Unit

Research Scientist, 2007-2010

The Pennsylvania State University, Department of Geography

Post-Doctoral Research Associate, 2005-2006

EDUCATION

Katholieke Universiteit Leuven, Belgium

PhD, Bioscience Engineering, December 2004

Dissertation: *The El Niño Southern Oscillation effect on Zambezian miombo vegetation: proxies from tree-ring series and satellite-derived data*

Ghent University, Belgium

MEng, Bioscience Engineering, June 1999

Major in Land Management and Forestry

Ghent University, Belgium

BSc, Bioscience Engineering, June 1997

HONORS AND AWARDS

2020 Jan Wolkers Prize (World Wildlife Fund)

2019 Willi Dansgaard Award (American Geophysical Union)

2018 UA Distinguished Scholar Award

2017-18 Udall Center Fellow (UA)

2016, 2020 Kavli Fellow (National Academy of Sciences)

2014 National Science Foundation CAREER Award

2017 Henry C Cowles Award for Best Publication (American Association of Geographers, Biogeography specialty group) for Taylor, Trouet et al. 2016

2016 NOAA NCEI paper of the year award for Belmecheri et al. 2016

2000-2003 Institute for the Promotion of Innovation by Science and Technology in Flanders, Doctoral Research Fellow

1999 Belgian Development Cooperation Prize for MS thesis

PUBLICATIONS

Books

Tree Story: a history of the world written in rings

Winner of the World Wide Fund's 2020 Jan Wolkers Prize

Gold Winner of the 2020 Foreword INDIES Award in Ecology & Environment

Bronze Winner of the 2021 Independent Publisher Book Award in

Environment/Ecology

A 2020 Woodland Book of the Year

Finalist for the Association of American Publishers 2021 PROSE Award

(Environmental Science)

I am the author of a broad audience book about climate history, human history, and tree-ring science. *Tree Story* was published by Johns Hopkins University Press (April 2020). It is translated into Dutch (Lannoo Press, *Wat bomen ons vertellen*, May 2020) Spanish (Critica, *Escrito en los arboles*, May 2021), Korean, and Japanese, with forthcoming translations in Chinese, Italian, and Turkish. It has been reviewed, amongst others, in *Science* magazine: <https://blogs.sciencemag.org/books/2020/04/15/tree-story/>

Peer-reviewed articles and book chapters

H-index: 42 (Google Scholar), 37 (Scopus)

Total publications: 82

Total citations: 8,306 (Google Scholar); 5,757 (Scopus)

Highest cited first-authored paper: Trouet et al. (2009), *Science*: 987 citations (GS)

Underlined author is a student or post-doctoral advisee

IN REVISION/ IN REVIEW/ SUBMITTED

(95) Wang Z, Huang R, Yao Q, Zheng B, Zhang G, **Trouet V** (submitted) Strong wind drives grassland fire in China. *Environmental Research Letters*

(94) Margolis E, Guiterman C, Chaverdès R, ..., **Trouet V** et al. (in revision) The North American tree-ring fire-scar network. *Ecosphere*

(93) Hudson AR, Smith WK, Moore DJP, **Trouet V** (in revision) Length of growing season is modulated by Northern Hemisphere jet stream variability. *International Journal of Climatology*

(92) Dorado-Liñan I, Ayarzagüena B, Babst F, Xu G, ..., **Trouet V** (in revision) Jet stream position explains regional anomalies in European forest productivity. *Nature Communications*

(91) Valdés-Pineda R, Valdés J, Wi S, Serrat-Capdevila A, Demaria E Durcik M, Tirthankar R, **Trouet V** (in review) Operational Short- to Medium-Range (SR2MR) Streamflow Forecasting for the Upper Zambezi Basin, Africa. *International Journal of Forecasting*

(90) U'Ren J, Oita S, Lutzoni F, Miadlikowska J, Ball B, Carbone I, May G, Zimmerman N, Valle D, **Trouet V**, Arnold AE (in revision) Climate sensitivity of fungal symbionts threatens iconic plants and lichens across the boreal biome. *Current Biology*

(89) Xu G, Liu X, Hu J, Dorado Linan I, Gagen M, Chen T, **Trouet V** (in revision) Intra-annual tree-ring d18O and d13C as ecophysiological indicators in humid subtropical China. *Tree Physiology*

- (88) Chen F, Yuan Y, **Trouet V**, Buentgen U, Esper J, Chen F, Yu S, Shen M, Zhang R, Shang H, Chen Y, Zhang H (in revision) Ecological and societal effects of Central Asian streamflow variation over the past eight centuries. *NPJ Climate and Atmospheric Science*
- (87) Yao Q, Zheng B, Fang K, Hudson A, Zhou F, Bing X, Chen H, Tan H, Guo F, **Trouet V** (in revision) North Atlantic Oscillation modulates the interplay between monsoon and westerlies in Asia on interdecadal timescales. *Geophysical Research Letters*
- (86) Hu HM, **Trouet V**, Moore GWK, Spoetl C, Tsai HC, Chien WY, Sung WH, Michel V, Yu JY, Valensi P, Jiang X, Duan F, Wang Y, Mii HS, Chou YM, Lone MA, Starnini E, Zunino M, Watanabe TK, Watanabe T, Hsu HH, Lee SY, Shen CC (in revision) Multiscale northern westerlies drift in Europe since the middle Holocene. *Nature Geoscience*
- (85) Yao Q, Zhen B, Wang X, Hudson A, Fang K, Zhu C, Hu H, Li Y, Han S, **Trouet V** (in revision) Climate change is a driver of the rising urban fire activity in China. *Proceedings of the National Academy of Sciences*
- 2022 (84) Zamora-Reyes D, Black B, **Trouet V** (accepted) Enhanced winter, spring, and summer hydroclimate variability across California from 1940 to 2019. *International Journal of Climatology*
- (83) Zuidema P, Babst F, Groenendijk P, **Trouet V** et al. (accepted) Dry-season climate drives interannual variability in tropical tree growth. *Nature Geoscience*
- 2021 (82) De Mil T, Meko M, Belmecheri S, February E, Therrell M, Van den Bulcke J, **Trouet V**: A lonely dot on the map: exploring the climate signal in tree-ring density and stable isotopes of Clanwilliam cedar, South Africa. *Dendrochronologia* <https://doi.org/10.1016/j.dendro.2021.125879>
- (81) Maxwell JT, Bregy JC, Robeson SM, Knapp PA, Soulé PT, **Trouet V**: Recent increases in tropical cyclone precipitation extremes over the US East Coast. *Proceedings of the National Academy of Sciences* <https://doi.org/10.1073/pnas.2105636118>
- (80) Shanan IA, Köse N, Akkemik U, Tuncay Güner H, Tavsanoğlu C, Bahar A, **Trouet V**, Nüzhet Dalfes H: Fire history of *Pinus nigra* in Western Anatolia: a first dendrochronological study. *Dendrochronologia* <https://doi.org/10.1016/j.dendro.2021.125874>
- (79) Yang B, Qin C, Bräuning A, Osborn TJ, **Trouet V**, Charpentier Ljungqvist F, Esper J, Schneider L, Griesinger J, Büntgen U, Rossi S, Yan M, Wang J, Luterbacher J: Long-term decrease in Asian monsoon rainfall and abrupt climate change events over the past 6,700 years. *Proceedings of the National Academy of Sciences* <https://doi.org/10.1073/pnas.2102007118>
- (78) Büntgen U, Allen K, Anchukaitis K, ..., **Trouet V**, Wang J, Wilson R, Yang B, Xu G, Esper J: The influence of decision-making in tree ring-based climate reconstructions. *Nature Communications* <https://doi.org/10.1038/s41467-021-23627-6>
- (77) Heilman K, **Trouet V**, Belmecheri S, Pederson N, Berke M, McLachlan J: Increased water use efficiency leads to decreased precipitation sensitivity of tree growth, but is offset by high temperatures. *Oecologia* <https://doi.org/10.1007/s00442-021-04892-0>
- (76) Fang K, Yao Q, Guo Z, Zheng B, Du J, Ou T, Liu J, He M, **Trouet V**: ENSO modulates wildfire activity in China. *Nature Communications* <https://doi.org/10.1038/s41467-021-21988-6>
- 2020 (75) Rollinson CR, Alexander MR, Dye AW, Moore DJP, Pederson N, **Trouet V**: Climate sensitivity of understory trees differs from overstory trees in temperate mesic forests. *Ecology* doi: 10.1002/ecy.3264
- (74) Thapa UK, St George S, **Trouet V**: Poleward excursions by the Himalayan Subtropical Jet over the past four centuries. *Geophysical Research Letters* doi: 10.1029/2020GL089631

2019

(73) Gutierrez-Garcia G, Leavitt S, **Trouet V**, Carriquiry J: Tree-ring based historic hydroclimatic variability of the Baja California Peninsula. *Journal of Geophysical Research – Atmospheres* doi: 10.1029/2020JD032675

(72) Liu Y, Song H, An Z, Sun C, **Trouet V**, Cai Q, Liu R, Leavitt SW, Song Y, Li Q, Zhou W, Fang C, Yang Y, Jin Z, Wang Y, Sun J, Mu X, Lei Y, Wang L, Li X, Ren M, Cui L, Zeng X: Recent anthropogenic curtailing of Yellow River runoff and sediment load is unprecedented over the past 500 years. *Proceedings of the National Academy of Sciences* doi: 10.1073/pnas.1922349117

(71) Xu G, Liu X, Sun W, Szejner P, Zeng X, Yoshimura K, **Trouet V**: Seasonal divergence between soil water availability and atmospheric moisture recorded in intra-annual tree-ring $\delta^{18}\text{O}$ extremes. *Environmental Research Letters* doi: 10.1088/1748-9326/ab9792

(70) Xu G, Wu G, Liu X, Chen T, Wang B, Hudson A, **Trouet V**: Age-related climate response of tree-ring $\delta^{13}\text{C}$ and $\delta^{18}\text{O}$ from spruce in northwestern China, with implications for relative humidity reconstructions. *Journal of Geophysical Research – Biogeosciences* doi:10.1029/2019JG005513

(69) Zafirov N, Panayotov M, Tsvetanov N, Nikolchova I, **Trouet V**: Dendroclimatic analysis of *Pinus peuce* Griseb. at subalpine and treeline locations in Pirin Mountains, Bulgaria. *Dendrochronologia* doi: 10.1016/j.dendro.2020.125703

(68) Altman J, Treydte K, Pejcha V, Cerny T, Petrik P, Srutek M, Song J, **Trouet V**, Dolezal J: Tree growth response to recent warming of two endemic species in Northeast Asia. *Climatic Change* doi.org/10.1007/s10584-020-02718-1

(67) Björklund J, von Arx G, Nievergelt D, ..., Meko M, De Mil T, **Trouet V**, ..., Frank DC: Scientific merits and analytical challenges of tree-ring densitometry. *Reviews of Geophysics* <https://doi.org/10.1029/2019RG000642>

(66) Hudson A, Alfaro-Sánchez R, Babst F, Belmecheri S, Moore DJP, **Trouet V**: Seasonal and synoptic climatic drivers of tree growth in the Bighorn Mountains, WY (1654-1983 CE) *Dendrochronologia* <https://doi.org/10.1016/j.dendro.2019.125633>

(65) Xu G, **Trouet V**, Liu X, Hudson A, Zhang Q, Zhang Q: Century-scale temperature variability and onset of industrial-era warming in the Eastern Tibetan Plateau. *Climate Dynamics* doi.org/10.1007/s00382-019-04807-z

(64) Wahl ER, Zorita E, **Trouet V**, Taylor AH: Jet stream dynamics, hydroclimate, and fire in California from 1600 CE to present. *Proceedings of the National Academy of Sciences* doi.org/10.1073/pnas.1815292116

(63) Klippel L, Krusic PJ, Konter O, St. George S, **Trouet V**, Esper J: A 1200+ year reconstruction of temperature extremes for the northeastern Mediterranean region. *International Journal of Climatology* doi.org/10.1002/joc.5955

(62) Babst F, Bouriaud O, Poulter B, **Trouet V**, Girardin MP, Frank DC: Twentieth century redistribution in climatic drivers of global tree growth. *Science Advances* DOI: 10.1126/sciadv.aat4313

2018

(61) Alfaro-Sánchez R, Nguyen H, Klesse S, Hudson A, Belmecheri S, Köse N, Diaz HF, Monson RK, Villalba R, **Trouet V**: Climatic and volcanic forcing of tropical belt northern boundary over the past 800 years. *Nature Geoscience* doi.org/10.1038/s41561-018-0242-1

(60) Babst F, Bodesheim P, Charney N, Friend A, Girardin M, Klesse S, Moore DJP, Seftigen K, Björklund J, Bouriaud O, Dawson A, DeRose R, Dietze M, Eckes A, Enquist B, Frank DC, Mahecha MD, Poulter B, Record S, **Trouet V**, Turton R, Zhang Z, Evans MEK: When tree rings go global: challenges and opportunities for retro- and prospective insight. *Quaternary Science Reviews* doi.org/10.1016/j.quascirev.2018.07.009

(59) Ols C, Girardin MP, **Trouet V**, Hofgaard A, Bergeron Y, Drobyshev I: Post-1980 shifts in the sensitivity of boreal tree growth to North Atlantic Ocean dynamics and

seasonal climate. *Global and Planetary Change*
doi.org/10.1016/j.gloplacha.2018.03.006

(58) Xu G, Liu X, **Trouet V**, Treydte K, Wu G, Chen T, Sun W, Wang W, Zeng X, Qin D: Regional drought shifts (1700-2011) in East Central Asia and linkages with atmospheric circulation recorded in tree-ring $\delta^{18}O$. *Climate Dynamics*
doi.org/10.1007/s00382-018-4215-2

(57) **Trouet V**, Babst F, Meko M: Recent enhanced high-summer North Atlantic Jet variability emerges from three-century context. *Nature Communications*
doi.org/10.1038/s41467-017-02699-3

(56) Alfaro-Sánchez R, Camarero JJ, Sánchez-Salguero R, **Trouet V**, De las Heras J: How do droughts and wildfires alter seasonal radial growth in Mediterranean Aleppo pine forests? *Tree-Ring Research* dx.doi.org/10.3959/1536-1098-74.1.1

2017

(55) Alexander MR, Rollinson CR, Babst F, **Trouet V**, Moore DJP: Relative influences of multiple sources of uncertainty on cumulative and incremental tree-ring-derived aboveground biomass estimates. *Trees – Structure and Function*
doi.org/10.1007/s00468-017-1629-0

(54) **Trouet V**, Dominguez-Delmas M, Pearson C, Pederson N, Rubino D: Dendro-archeo-ecology in North America and Europe: Re-purposing Historical Materials to Study Ancient Human-Environment Interactions. *In: Amoroso M, et al. (eds.) Dendroecology: Tree-ring analyses applied to ecological studies*, Springer, pp. 365-394.

(53) Marlon JR, Pederson N, Nolan C, Goring S, Shuman B, Booth R, Bartlein P, Berke MA, Clifford M, Cook ER, Dieffenbacher-Krall A, Hessler A, Hubeny JB, Jackson S, Marsicek J, McLachlan J, Mock CJ, Moore DJP, Nichols J, Robertson A, Schaefer K, **Trouet V**, Umbanhowar C, Williams J, Yu Z: Climatic history of the northeastern United States during the past 3000 years. *Climate of the Past* doi.org/10.5194/cp-13-1355-2017

(52) Montane F, Fox A, Arellano A, MacBean N, Alexander MR, Dye A, Bishop D, **Trouet V**, Babst F, Hessler A, Pederson N, Blanken P, Bohrer G, Gough C, Litvak M, Novick K, Phillips R, Wood, J, Moore DJP: Evaluating the effect of alternative carbon allocation schemes in a land surface model on carbon fluxes, pools, and turnover in temperate forests. *Geoscientific Model Development* doi.org/10.5194/gmd-10-3499-2017, 2017

(51) Belmecheri S, Babst F, AR Hudson, Betancourt J, **Trouet V**: Northern Hemisphere Jet Stream Position Indices as Diagnostic Tools for Climate and Ecosystem Dynamics. *Earth Interactions* doi.org/10.1175/EI-D-16-0023.1

(50) Klippel L, Krusic PJ, Brandes R, Hartl-Meier C, **Trouet V**, Esper J: High-elevation inter-site differences in Mount Smolikas tree-ring width data. *Dendrochronologia*
doi.org/10.1016/j.dendro.2017.05.006

(49) Yao Q, Brown PM, Liu S, Rocca ME, **Trouet V**, Zheng B, Chen H, Li Y, Wang X: Pacific-Atlantic Ocean influence on wildfires in northeast China (1774 to 2010). *Geophysical Research Letters* doi.org/10.1002/2016GL071821

(48) Konter O, Krusic P, **Trouet V**, Esper J: Meet Adonis, Europe's oldest dendrochronologically dated tree. *Dendrochronologia* doi:10.1016/j.dendro.2016.12.001

2016

(47) Taylor AH¹, **Trouet V**¹, Skinner CN, Stephens SL: Socio-Ecological transitions trigger fire regime shifts and modulate fire-climate interactions in the Sierra Nevada, USA 1600-2015 CE. *Proceedings of the National Academy of Sciences* DOI: 10.1073/pnas.1609775113 [¹AHT and VT contributed equally to this work] [Henry C Cowles Award for Best Publication; American Association of Geographers, Biogeography specialty group]

- (46) Szejner P, Wright WE, Babst F, Belmecheri S, **Trouet V**, Leavitt SW, Ehleringer JR, Monson RK: Latitudinal gradients in tree-ring stable carbon and oxygen isotopes reveal differential climate influences of the North American Monsoon system. *Journal of Geophysical Research – Biogeosciences* doi:10.1002/2016JG003460
- (45) Charney ND, Babst F, Poulter B, Record S, **Trouet V**, Frank D, Enquist BJ, Evans MEK: Observed forest sensitivity to climate implies larger reductions in 21st century forest growth. *Ecology Letters* doi: 10.1111/ele.12650
- (44) Esper J, Krusic PJ, Ljungqvist F, Luterbacher J, Carrer M, Cook ER, Davi NK, Hartl-Meier C, Kirilyanov A, Konter O, Myglan V, Timonen M, Treydte K, **Trouet V**, Villalba R, Wilson RS, Yang B, Büntgen U: Ranking of tree-ring based temperature reconstructions of the past millennium. *Quaternary Science Reviews* 145: 134-151.
- (43) O'Donnell A, Allen K, Evans R, Cook ER, **Trouet V**, Baker PJ: Wood density provides new opportunities for reconstructing past temperature variability from southeastern Australian trees. *Global and Planetary Change* 141: 1-11
- (42) Black BA, Griffin D, Van der Sleen P, Wanamaker AD, Speer JH, Frank DC, Stahle DW, Pederson N, Copenheaver CA, **Trouet V**, Griffin S, Gillanders BM: The value of crossdating to retain high-frequency variability, climate signals, and extreme events in environmental proxies. *Global Change Biology* 22: 2582-2595.
- (41) **Trouet V**, Harley G, Dominguez-Delmas M: Shipwreck rates reveal Caribbean tropical cyclone response to past radiative forcing. *Proceedings of the National Academy of Sciences* 113: 3169-3174; doi.org/10.1073/pnas.1519566113
- (40) Belmecheri S, Babst F, Wahl ER, Stahle DW, **Trouet V**: Multi-century evaluation of Sierra Nevada snowpack. *Nature Climate Change* doi:10.1038/nclimate2809 [Most read Nature Climate Change publication (09/28/2015); NOAA NCEI paper of the year award 2016]
- 2015 (39) Cook ER and 55 co-authors including **Trouet V**: Old World megadroughts and pluvials during the Common Era, *Science Advances* doi:1:e1500561
- (38) Baker A, Hellstrom J, Kelly BFJ, Mariethoz G, **Trouet V**: A composite annual-resolution stalagmite record of North Atlantic climate over the last three millennia. *Scientific Reports* DOI: 10.1038/srep10307
- (37) Dawson A, Austin D, Walker D, Appleton A, Gillanders BM, Griffin SM, Sakata C, **Trouet V**: A tree-ring based reconstruction of early summer precipitation in southwestern Virginia (1750-1981). *Climate Research* 64, 243-256.
- (36) Klesse S, Ziehmer M, Rousakis G, **Trouet V**, Frank D: Synoptic drivers of 400 years of summer temperature and precipitation variability on Mt. Olympus, Greece *Climate Dynamics* 45, 807-824.
- (35) Seim A, Treydte K, **Trouet V**, Frank D, Fonti P, Tegel W, Panayotov M, Fernandez Donado L, Büntgen U: Climate sensitivity of Mediterranean pine growth reveals a distinct west-east dipole structure. *International Journal of Climatology* DOI: 10.1002/joc.4137
- 2014 (34) **Trouet V**: A tree-ring based late summer temperature reconstruction (1675-1980) for the northeastern Mediterranean. *Tree-Ring Research/ Radiocarbon* 56, 69–78.
- (33) Babst F, Alexander MR, Moore DJ, Frank DC, Klesse S, Bouriaud O, Poulter B, Ciais P, Roden J, **Trouet V**: A tree-ring perspective on the terrestrial carbon cycle. *Oecologia* DOI 10.1007/s00442-014-3031-6
- (32) Babst F, Bouriaud O, Alexander MR, **Trouet V**, Frank D: Toward consistent measurements of carbon accumulation: A multi-site assessment of biomass and basal area increment across Europe. *Dendrochronologia* 32, 153-161.
- (31) Diaz H, **Trouet V**: Some Perspectives on Societal Impacts of Past Climatic Changes. *History Compass* 12(2):160-177.

2013

(30) **Trouet V**, Diaz HF, Wahl ER, Viau AE, Cook ER: A 1500-year reconstruction of annual mean temperature for temperate North America on decadal-to-multidecadal time-scales. *Environmental Research Letters* DOI 10.1088/1748-9326/8/2/024008

(29) PAGES2K consortium (including **Trouet V**) Continental-scale temperature variability during the past two millennia. *Nature Geoscience* DOI 10.1038/NGEO1797 [ISI highly cited paper]

(28) **De Ridder M**, **Trouet V**, Van den Bulcke J, Hubau W, Van Acker J, Beeckman H: A tree-ring based comparison of *Terminalia superba* climate-growth relationships in West and Central Africa. *Trees – Structure and Function* DOI 10.1007/s00468-013-0871-3

(27) **Trouet V**, Van Oldenborgh GJ: KNMI Climate Explorer: a web-based research tool for high-resolution paleoclimatology. *Tree-Ring Research* 69(1): 3-13. [ISI highly cited paper][Most read and second most cited paper in Tree-Ring Research in 2017]

(26) **Babst F**, Poulter B, **Trouet V**, Kun T, Neuwirth B, Wilson R, Carrer M, Grabner M, Tegel W, Levanić T, Panayotov M, Urbinati C, Bouriaud O, Ciais P, Frank D: Site- and species-specific responses of forest growth to climate across the European continent. *Global Ecology and Biogeography* DOI: 10.1111/geb.12023 [Top cited 2013-2014 GEB paper] [ISI highly cited paper]

2012

(25) **Trouet V**, Mukelabai M, Verheyden A, Beeckman H: Cambial growth season of brevi-deciduous *Brachystegia spiciformis* trees from South Central Africa restricted to four months. *PLoS ONE* 7(10): e47364. DOI:10.1371/journal.pone.0047364

(24) **Seim A**, Buntgen U, Fonti P, Haska H, Herzig F, Tegel W, **Trouet V**, Treydte K: The paleoclimatic value of a millennium-long tree-ring chronology from Albania. *Climate Research* DOI: 10.3354/cr01076

(23) **Trouet V**, Panayotov M, **Ivanova A**, Frank DC: A pan-European summer teleconnection mode revealed by a new temperature reconstruction from the northeastern Mediterranean (1768-2008). *The Holocene* DOI: 10.1177/0959683611434225

(22) **Trouet V**, Scourse JD, Raible CC: North Atlantic storminess and Atlantic Meridional Overturning Circulation in the last Millennium: reconciling contradictory proxy records of NAO variability. *Global and Planetary Change* DOI 10.1016/j.gloplacha.2011.10.003 [Most cited publication in Global and Planetary Change in 2012]

2011

(21) Baker A, Wilson R, Fairchild I, Franke J, Spoetl C, **Trouet V**: High resolution $\delta^{18}O$ and $\delta^{13}C$ records of the last millennium climate from an annually laminated Scottish stalagmite. *Global and Planetary Change* DOI: 10.1016/j.gloplacha.2010.12.007

(20) Buntgen U, Tegel W, Nicolussi K, McCormick M, Frank D, **Trouet V**, et al.: 2500 years of European climate variability and human susceptibility. *Science* DOI: 10.1126/science.1197175 [recommended for Faculty of 1000 by Douglas Erwin] [ISI highly cited paper]

(19) **Trouet V**: Paleoclimate. In: Mastrandrea M, Schneider SH, Root TL (Eds.), *The Encyclopedia of Climate and Weather*, Oxford University Press, 2nd edition, 391-394.

(18) **Trouet V**: Little Ice Age. In: Mastrandrea M, Schneider SH, Root TL (Eds.), *The Encyclopedia of Climate and Weather*, Oxford University Press, 2nd edition, 241-243.

2010

(17) **Trouet V**, Esper J, Beeckman H: Climate/growth relationships of *Brachystegia spiciformis* from the Miombo woodland in southern Africa. *Dendrochronologia* DOI: 10.1016/j.dendro.2009.10.002

(16) **Trouet V**, Taylor AH: Multi-century variability in the Pacific North American (PNA) circulation pattern reconstructed from tree rings. *Climate Dynamics* DOI:10.1007/s00382-009-0605-9

- (15) **Trouet V**, Taylor AH, Wahl ER, Skinner CN, Stephens SL: Fire-climate interactions in the American West since 1400 CE. *Geophysical Research Letters* DOI:10.1029/2009GL041695
- (14) Büntgen U, Frank D, **Trouet V**, Esper J: Diverse growth trends and climate responses of high-elevation Mediterranean tree-ring width and density. *Trees – Structure and Function* DOI:10.1007/s00468-009-0396-y
- (13) Büntgen U, **Trouet V**, Leuschner HH, Frank D, Friedrichs D, Esper J: A tree ring-based summer drought reconstruction for Central Germany reveals evidence of the Medieval Climate Anomaly. *Quaternary Science Reviews* DOI: 10.1016/j.quascirev.2010.01.003
- (12) Frank D, Esper J, Raible C, Büntgen U, **Trouet V**, Joos F: Ensemble temperature reconstruction constraints on CO₂ feedbacks. *Nature* 463, 527-530, DOI: 10.1038/nature08769
- (11) Panayotov M, Bebi P, **Trouet V**, Yurukov S: Climate signal in tree-ring chronologies of *Pinus peuce* and *Pinus heldreichii* from the Pirin Mountains in Bulgaria. *Trees – Structure and Function* 24, 479-490, DOI:10.1007/s00468-010-0416-y
- 2009 (10) **Trouet V**, Esper J, Graham NE, Baker A, Frank DC, Scourse JD: Persistent positive North Atlantic Oscillation mode dominated the Medieval Climate Anomaly. *Science* 324, 78–80, DOI: 10.1126/science.1166349
- (9) **Trouet V**, Taylor AH, Carleton AM: Interannual variations in fire weather, fire extent, and synoptic-scale circulation patterns in northern California and Oregon. *Theoretical and Applied Climatology* 95:349-360, DOI: 10.1007/s00704-008-0012-x.
- (8) Skinner CN, Abbott CS, Fry DL, Stephens SL, Taylor AH, **Trouet V**: Variation in Fire Regime Characteristics in California’s North Coast Range. *Fire Ecology* 5: 73-96, doi: 10.4996/fireecology.0503073
- (7) Friedrichs D, **Trouet V**, Büntgen U, Frank DC, Esper J, Neuwirth B, Löffler J: Twentieth century climate sensitivity of Central European tree species. *Trees - Structure and Function* 23:729-739, DOI 10.1007/s00468-009-0315-2
- 2008 AND EARLIER (6) Taylor AH, **Trouet V**, Skinner CN (2008) Climatic influences on fire regimes in montane forests in the southern Cascades, California, USA. *International Journal of Wildland Fire* 17:60-71.
- (5) Yuan Y, Shao X, Wei W, Yu S, Gong Y, **Trouet V** (2007) The potential to reconstruct Manasi River streamflow in the northern Tien Shan mountains (NW China). *Tree-Ring Research* 63, 81-93. [4th most cited TRR article 2013-2015]
- (4) **Trouet V**, Taylor AH, Carleton AM, Skinner CN (2006) Fire-climate interactions in forests of the American Pacific Coast. *Geophysical Research Letters* 33:L18704, DOI:10.1029/2006GL027502.
- (3) **Trouet V**, Coppin P, Beeckman H (2006) Annual ring patterns in *Brachystegia* Trees of the Miombo Woodland reveal climatic Influence. *Biotropica* 38(3): 375-382.
- (2) Fichtler E, **Trouet V**, Beeckman H, Coppin P, Worbes M (2004) Climatic signals in tree rings of *Burkea africana* and *Pterocarpus angolensis* from semi-arid forests in Namibia. *Trees – Structure and Function* 18: 422-451.
- (1) **Trouet V**, Haneca K, Coppin P, Beeckman H (2001) Tree ring analysis of *Brachystegia spiciformis* and *Isobrerlinia tomentosa*: evaluation of the ENSO-signal in the miombo-woodland of eastern Africa. *IAWA Journal* 22: 385-399.
- GRANTS >10K USD (23) Research Foundation Flanders (FWO Belgium): Accurate temperature reconstructions and climate change mapping in tree rings of ancient Bristlecone pines, the longest-living trees in the world [ACTREAL]; co-I (39,272 USD to UArizona; 01/01/2021-31/12/2024)

<10K USD

- (22) National Science Foundation CAREER: INTERN supplement (graduate student: Diana Zamora-Reyes); sole PI (22,514 USD; 07/01/2019-05/14/2020)
- (21) National Science Foundation CAREER: INTERN supplement (graduate student: Amy Hudson); sole PI (23,100 USD; 07/01/2019-05/14/2020)
- (20) National Science Foundation CAREER: Tree-ring based reconstruction of decadal to centennial-scale Northern Hemisphere Jetstream variability; sole PI (587,442 USD; 05/15/2014-05/14/2019)
- (19) US Geological Survey Southwest Climate Science Center: Influence of interannual North Pacific Jet variability on Sierra Nevada Fire regimes; PI (139,280 USD; 9/9/2013-9/8/2015)
- (18) Department of Energy: Estimating carbon flux and storage: constraint of the Community Land Model using observations at different temporal scales; co-I (970,020 USD; 9/1/2013-8/31/2016);
- (17) National Science Foundation: Catalyzing International Partnerships in Community-related Environmental and Sustainability Research and Education: Ethical, Structural and Institutional Issues of Collaboration; co-I (20,000 USD; 4/1/12-3/31/14)
- (16) UArizona, Water Environment and Energy Solutions: Influence of jet stream variability on North American landscape phenology; PI (32,752 USD; 8/15/2016-5/15/2017)
- (15) UArizona, CONACYT: Historic hydroclimatic variability of the Baja California Peninsula, based on tree-ring widths and isotope analysis of *Pinus monophylla* and *Pinus lagunae*; Co-I (25,000 USD; 1/1/2015-12/31/2015)
- (14) UArizona, Water Environment and Energy Solutions: Hydrologically-driven Spatial Heterogeneity of Tree Productivity and Tree Climate Sensitivity in the Southwest; PI (39,994 USD; 7/1/2014-6/30/2013)
- (13) UArizona, Sustainability of semi-Arid Hydrology and Riparian Areas: Spatial heterogeneity of tree growth sensitivity to climate in the Jemez River Basin Critical Zone Observatory; sole PI (14,996 USD; 5/1/2012-6/30/2012)
- (12) UArizona TRIF Optics/Imaging special program; Co-I (14,941 USD; 2/1/2011-3/1/2011)
- (11) European Science Foundation, Exploratory Workshop Grant: Synoptic-scale Circulation Patterns over the last Millennium, Kippel, Switzerland; PI (14,000 EUR; 10/1/2008-06/01/2009)
- (10) Institute for the Promotion of Innovation by Science and Technology in Flanders, Belgium: Doctoral Research Fellowship; sole PI (80,000 EUR; 01/01/2000-12/31/2003)
- (9) National Science Foundation CAREER supplement: Tree-ring based reconstruction of Northern Hemisphere Jetstream variability; sole PI (2,724 USD; 05/15/2016-09/15/2017)
- (8) UArizona, College of Science: Curriculum Development for two Interdisciplinary Courses: Global Change Analysis and Scientific Writing; sole PI (10,000 USD; 8/15/2016 -5/15/2017)
- (7) UArizona, College of Science: Dendroclimatic potential of *Widdringtonia cedarbergensis* trees in South Africa; sole PI (9,986 USD; 10/1/2015-9/30/2016)
- (6) National Science Foundation travel award for the *International Hurricane and Climate Change Summit* (Crete, Greece; June 9-14 2015); sole PI (1,505 USD)
- (5) Past Global Changes (PAGES) Network: PAGES NAM2K workshop (27-29 October 2011; Tucson, AZ) funding; sole PI (5,000 USD; 05/01/2011-12/31/2011)
- (4) Schweizerische Nationalfonds, International short visit funding; sole PI (6,190 CHF; 01/01/2010-06/30/2010)
- (3) European Science Foundation, MedClivar: young scientist exchange grant for undergraduate advisee Albena Ivanova; sole PI (3,350 EUR; 10/2009)

	<p>(2) University of Bern, Oeschger Center for Climate Research: Synoptic-scale Circulation Patterns over the last Millennium, Kippel, Switzerland; workshop funding; PI (5,000 CHF; 10/1/2008-06/01/2009)</p> <p>(1) European Meteorological society, Young Scientist Travel Award, sole PI (1,500 CHF; 09/2008)</p>
TEACHING	<p>Scientific Writing: Fall 2016; 2019-2021; 600 level; ~10 students</p> <p>Introduction to Dendrochronology: Fall 2011-12, 2014-2021; 400-500 level; 7-23 students</p> <p>Introduction to Global Change: Spring 2012-2014; 100 level; General Education; 50-150 students</p> <p>Renewable Natural Resources Seminar: Fall 2012-13, Spring 2013-14; 600 level; 5-10 students</p>
ADVISING	Ellie Broadman (Aug 2021 – present)
POST-DOCS	<p>Tom De Mil (Jan-Dec 2019); currently Assistant Professor at the University of Gembloux, Belgium</p> <p>Guobao Xu (2018-2020); currently research scientist at the Chinese Academy of Sciences</p> <p>Raquel Alfaro-Sanchez (2016-2017); currently post-doc at University of Waterloo, ON</p> <p>Soumaya Belmecheri (2015-2016); currently NSF Program Officer</p> <p>Genaro Gutierrez (Jan-Dec. 2015); currently research scientist at Center for Scientific Research and Higher Education; Ensenada; Mexico</p>
PRIMARY ADVISOR	<p>Flurin Babst (2013-2015); currently Assistant Research Professor at the UArizona</p> <p>Michael Ross Alexander, PhD, School of Natural Resources and the Environment (SNRE), UArizona (2012- 2017); currently Owner; Midwest Dendro LLC</p> <p>Paul Szejner, PhD, SNRE, UArizona (2013-2017); currently Assistant Professor at UNAM</p> <p>Amy Hudson, PhD, SNRE, UArizona (2015-2020); currently post-doc at ORISE</p> <p>Matthew Meko, PhD, Department of Geosciences, UArizona (2016-present)</p> <p>Diana Zamora-Reyes, PhD, Department of Hydrology and Atmospheric Sciences, UArizona (2017-present)</p> <p>Robert Shepard, MS, SNRE, UArizona (2013-2015)</p> <p>Zakia Hassan Khamisi, MS, SNRE, UArizona (2011-2014)</p>
GRADUATE COMMITTEE	<p>Kaat Celis, PhD, College of Arts, Katholieke Universiteit Leuven, Belgium (2021-)</p> <p>Qichao Yao, PhD, College of Forestry, Northeast Forestry University, Harbin, China (2017)</p> <p>Clementine Ols, PhD, Department of Forestry, UQAT, Quebec, Canada (2016)</p> <p>Vera De Cauwer, PhD, Applied Biological Sciences, Katholieke Universiteit Leuven, Belgium (2016)</p> <p>Alison Fretz, MS, Department of Biology, University of New Mexico, NM (defended in June 2017)</p> <p>Jesper Bjoerklund, PhD, Earth Sciences, University of Gothenburg, Gothenburg, Sweden (2014)</p> <p>Astika Bhugeloo, MS, Geography, University of KwaZulu-Natal, South Africa (2014)</p> <p>Maaïke De Ridder, PhD, Applied Biological Sciences, Ghent University, Ghent, Belgium (2013)</p> <p>David Edge, PhD, Department of Geosciences, UArizona (2018-present)</p> <p>Rodrigo Valdes, PhD, Department of Hydrology and Atmospheric Sciences, UArizona (2014-2021)</p> <p>Connor Nolan, PhD, Department of Geosciences, UArizona (2013-2019)</p>

**INVITED
PRESENTATIONS**
CONFERENCES &
WORKSHOPS

Laura Marshall, PhD, SNRE, UArizona (2011-2019)

Rebecca Caroli, MS, Archeology Department, UArizona (2013-2015)

Emily L Dynes, MS, SNRE, UArizona (2012-2015)

(18) Tree Rings in Archeology, Climatology, and Ecology (TRACE21) conference (virtual, June 16-17 2021) *Diversity in dendrochronology* [invited keynote lecture]

(17) Frontiers of Science Symposium, Kavli Foundation and National Academy of Sciences (virtual, July 18-21 2020) *The impact of climate change on wildfires*

(16) AGU Fall Meeting (San Francisco, CA, December 9-13, 2019) *Eight Hundred Years of North Atlantic Jet Stream Variability and its Influence on European Climate Extremes*

(15) Creating Nature: Premodern Climate and the Environmental Humanities conference (Washington DC, May 23-24, 2019) *Shipwrecks, Tree Rings, and Hurricanes*

(14) Tree Rings in Archeology, Climatology, and Ecology (TRACE19) conference (Caserta, Italy, May 7-10, 2019) *Reconstructing jet stream and Hadley Cell circulation dynamics*

(13) AGU Fall Meeting (Washington DC, December 10-14, 2018) *A tree-ring based reconstruction of spring Northern Hemisphere tropical belt movements over the past 800 years*

(12) AMQUA/CANQUA conference (Ottawa, Canada, August 7-11 2018) *Natural drivers of early spring Northern Hemisphere tropical belt movements over the past 800 years*

(11) Frontiers of Science Symposium, Kavli Foundation and National Academy of Sciences (Irvine, CA, November 3-6 2016) *Snow, wind, and fire: understanding drivers of past climate variability*

(10) SCOT2K workshop (Aviemore, UK, September 6-7 2016) *A tree-ring based reconstruction of North Atlantic Jet variability over the last 250 years*

(9) Ecological Society of America (ESA) annual meeting (Baltimore, MD, August 10-14 2015) *A tree-ring perspective on terrestrial climate dynamics*

(8) XYLAREDD 2015 symposium (Tervuren, Belgium, May 26-29 2015) *Climatic drivers of tree growth in the miombo woodland of southern Africa.*

(7) MTNCLIM 2014 Conference, Cirmount (Midway, UT, September 15-18 2014) *Reconstructing North Pacific Jet variability and its influence on Sierra Nevada fire regimes*

(6) PAGES2K North American Climate working group, Powell Center, Fort Collins, CO (24 June 2014) *A 1500-year reconstruction of annual mean temperature for temperate North America on decadal- to multidecadal time-scales*

(5) Center for the Ancient Mediterranean workshop, Columbia University (NYC, NY, May 17 2014) *Potential pathways of climatic influence on the late Roman Empire*

(4) 9th International Conference on Dendrochronology (Melbourne, AUS, January 13-17 2014) *Climate Dynamics and European History*

(3) PAGES NAM2K meeting (Flagstaff, AZ, 8-10 May 2011) *Climate drivers of tree growth in Europe*

(2) Eurodendro, Mallorca, Spain (28 October 2009) Keynote Lecture: *Developments, advances, and challenges in dendroclimatology*

(1) 3rd Milestone Meeting of the Millennium Project, Mallorca, Spain (3 March 2009) Keynote Lecture: *Persistent positive NAO mode dominated the Medieval Climate Anomaly*

SEMINARS

- (38) Department of Biology, University of Miami (virtual, November 30, 2021) *Tree Story: what we can learn about climate and forest history from the rings in trees*
- (37) Department of Ecology and Evolutionary Biology, Cornell University (virtual, November 15, 2021) *Tree Story: what we can learn about climate and forest history from the rings in trees*
- (36) Perspectives on Climate Science, EGU (virtual, May 19, 2021) *A paleoclimate perspective on large-scale climate dynamics*
- (35) Goddard scientific colloquium, NASA (virtual, 31 March 2021) *A tree-ring perspective on fire and climate dynamics*
- (34) Institute of Botany, Czech Academy of Sciences (virtual, 15 March 2021) *A tree-ring perspective on fire and climate dynamics*
- (33) Biology and Paleo environment seminar, Lamont-Doherty Earth Observatory, Columbia University (virtual, 16 November 2020) *A paleoclimate perspective on large-scale climate dynamics*
- (32) Environmental History seminar, Georgetown University, Washington, DC (5 February 2020) *Tree Story: what the rings in trees reveal about the history of climate change*
- (31) Geology Research Seminar, Ghent University, Ghent, Belgium (12 November 2019) *A paleoclimate perspective on large-scale climate dynamics*
- (30) Lessen voor de XXIe Eeuw (Lessons for the 21st century), KULeuven, Leuven, Belgium (4 November 2019) *Paleoklimaat: klimaatsverandering in de context van de laatste 1000 jaar*
- (29) Climate, People, and Environment (CPEP) seminar, University of Wisconsin, Madison, WI (1 October 2019) *A paleoclimate perspective on large-scale climate dynamics*
- (28) ClimaTea seminar, Harvard University, Cambridge, MA (5 March 2019) *Natural drivers of early spring Northern Hemisphere tropical belt movements over the past 800 years*
- (27) Frontiers in Earth System Science seminar, Rutgers University, New Brunswick, NJ (19 February 2019) *A paleoclimate perspective on large-scale climate dynamics*
- (26) Visher lecture in Climatology, Indiana University, Bloomington, IN (16 February 2018) *Heat, wind, and fire: extreme climate events in a historical context*
- (25) Physics Colloquium, McGill University, Montreal, Canada (9 February 2018) *Heat, wind, and fire: extreme climate events in a historical context*
- (24) Department of Ecology and Evolutionary Biology, Brown University, Providence, RI (6 February 2018) *Heat, wind, and fire: understanding drivers of past climate variability and extremes*
- (23) Environmental Breakfast Club, UArizona (2 February 2018) *Heat, wind, and fire: understanding drivers of past climate variability and extremes*
- (22) St. Petersburg Coastal and Marine Science Center, USGS, St. Petersburg, FL (15 September 2017) *Heat, wind, and fire: understanding drivers of past climate variability and extremes*
- (21) Institute for Geophysics, University of Texas, Austin, TX (27 April 2017) *Snow, wind, and fire: tree rings as recorders of past extreme climate events*

- (20) Department of Hydrology and Atmospheric Sciences, UArizona (17 November 2016) *Influence of the Northern Pacific Jet on California hydroclimate and wildfire regimes over the last 500 years*
- (19) Department of Forestry, Université de Québec en Abitibi-Témiscamingue, Rouyn-Noranda, Canada (25 October 2016) *Influence of the North Pacific Jet stream on California hydroclimate and wildfire regimes over the last 500 years*
- (18) Division of Forest, Nature, and Landscape, KULeuven, Leuven, Belgium (9 September 2016) *A tree-ring based reconstruction of Northern Hemisphere Jet variability and its ecosystem impacts*
- (17) Department of Soil, Water, and Environmental Science, UArizona (21 March 2016) *Tree-ring based reconstruction of Northern Hemisphere Jetstream variability and its ecosystem impacts*
- (16) Department of Geography, UArizona (12 February 2016) *Shipwreck Rates Reveal Caribbean Tropical Cyclone Response to Past Solar Forcing*
- (15) Department of Geosciences, UArizona (8 February 2016) *Tree-ring based reconstruction of Northern Hemisphere Jetstream variability and its ecosystem impacts*
- (14) Department of Hydrology and Atmospheric Sciences, UArizona (29 October 2015) *Shipwreck rates reveal North Atlantic Tropical Cyclone Response to Past Radiative Forcing*
- (13) Physical Oceanography and Climate Change seminar series, University of Wales, Bangor (UK) (21 May 2014) *Reconstructing the position of the North Atlantic Jet*
- (12) Research Insights in Semiarid Ecosystems (RISE) Symposium, UArizona (13 October 2012) *Large-scale interactions of climate, fire and vegetation structure in the western US as observed through tree rings*
- (11) Department of Forest Resources and Environmental Conservation, Virginia Tech (12 March 2012) *Fire-Climate Interactions in the American West*
- (10) Department of Atmospheric Sciences, UArizona (3 November 2011) *Climate Dynamics during the Medieval Climate Anomaly.*
- (9) School of Geography and Development, UArizona (30 September 2011) *Trees, Climate and History: What Tree-rings Can Tell Us About European History, Its Climate Drivers and How It's Linked to the Southwest*
- (8) Laboratory of Tree-Ring Research, UArizona (27 April 2011) *Myth busters: can tropical trees form annual rings?*
- (7) Fire Sciences Laboratory, Rocky Mountain Research Station, USDA Forest Service, Missoula (3 February 2011) *Fire-climate interactions in the American West*
- (6) Geographisches Institut, Johannes Gutenberg Universität, Mainz, Germany (24 June 2010) *Long-term dynamics of the North Atlantic Oscillation*
- (5) Institutes of Energy and the Environment, The Pennsylvania State University (2 April 2010) *Tree-ring based reconstruction of atmospheric circulation patterns*
- (4) INRA, Nancy, France (4 March 2010) *Tree ring-based reconstruction of forest fire regimes, atmospheric circulation patterns, and their interactions*
- (3) IMEP, Aix-en-Provence, France (2 December 2009) *Reconstructing atmospheric circulation patterns using tree-ring analysis*
- (2) Centre d'Ecologie Fonctionnelle et Evolutive, CNRS, Montpellier, France (25 February 2009) *Tree-ring based reconstruction of atmospheric circulation patterns and their influence on natural fire regimes in the Western U.S.*
- (1) CEREGE, CNRS, Aix-en-Provence, France (24 February 2009) *Tree-ring based reconstruction of atmospheric circulation patterns and their influence on natural fire regimes in the Western U.S.*

OUTREACH
LECTURES

- (14) International Society of Arboriculture (14 December 2021, virtual) *Tree story: the history of the world written in rings*
- (13) Landscape Inspectors Association Florida, FL (16 November 2021, virtual) *Tree story: the history of the world written in rings*
- (12) Trees South Carolina, SC (29 October 2021, virtual) *Tree story: the history of the world written in rings*
- (11) Gallo-Romeins Museum Tongeren, Belgium (20 October 2021, virtual) *Wat bomen ons vertellen*
- (10) Koninklijke Nederlandse Natuur Vereniging, Wageningen, The Netherlands (13 October 2021, virtual) *Wat bomen ons vertellen*
- (9) Vereniging Stadswerk Nederland, The Netherlands (3 June 2021; virtual) *Wat bomen ons vertellen*
- (8) BOS+, Belgium (14 April 2021; virtual) *Wat bomen ons vertellen*
- (7) deBuren, Belgium & The Netherlands (19 March 2021; virtual) *Klimaat en Spel*
- (6) Limburgse Koepel voor Natuurstudie, Belgium (27 Februari 2021; virtual) *Wat bomen ons vertellen*
- (5) Palais des beaux-arts de Bruxelles, Belgium (5 August 2020, virtual) *Repairing the future*
- (4) Institute for Learning in Retirement, Tucson, AZ (31 October 2019) *Treestory: what we can learn about climate history from the rings in trees*
- (3) Arizona Senior Academy, Tucson, AZ (Spring 2018) *Heat, Wind, and Fire: Extreme climate events in a historical context*
- (2) Key West Art and Historical Society, Key West, FL (24 March 2017) *Shipwrecks, tree rings, and hurricanes*
- (1) Florida Keys History and Discovery Center, Islamorada, FL (22 March 2017) *Shipwrecks, tree rings, and hurricanes*

SERVICE

SCIENTIFIC
COMMUNITY

Editor (2018-2021) and Associate editor (2017, 2022) for *Geophysical Research Letters* (American Geophysical Union)

Associate editor for *Fire Ecology* (2010-2016)

Terrestrial Environmental Observatories (TERENO) Scientific Advisory Board member (2021-present)

American Quaternary Association (AMQUA) council member (2015-2018)

Navareno Ecological Observatory (NEO) associate member (2015-present)

AGU Walter Sullivan Award for Excellence in Science Journalism: selection committee member (2017)

White House Earth Observations Assessment (EOA); panel member (2016)

Department of Forest Resources and Environmental Conservation, Virginia Tech: A showcase of female scientists (13 March 2012, Blacksburg, VA), discussion panellist

ARAMACC (Annually Resolved Archives of Marine Climate Change) summer school (Wales, UK, May 2014), instructor (INVITED)

International Dendroecological Fieldweek (Tasmania, January 2014), dendroclimatology instructor (INVITED)

North American Dendroecological Fieldweek (2011, 2012), dendroclimatology instructor (INVITED)

European Dendroecological Fieldweek (2006 - 2008), instructor

CONFERENCE &
WORKSHOP
CONVENER

4th American Dendrochronology Conference (June 2022, Montreal, Canada); scientific committee member

10th World Dendro Conference (Thimphu, Bhutan, June 10-15 2018); scientific committee member

2nd American Dendrochronology Conference (13-17 May 2013, Tucson, AZ; ~180 participants), co-chair of the programming committee

American Geophysical Union (AGU) annual meeting (San Francisco, CA) 2012-2016 Conference Session “*Constraining terrestrial ecosystem carbon uptake and storage using models and data*”, convener

AGU annual meeting 2017 Conference Session “*Past atmospheric variability inferred from paleoclimate proxies*”, convener

AGU annual meeting 2015 Conference Session “*Hydroclimate and Atmospheric Circulation Patterns on Multidecadal to Millennial Timescales*”, convener

PAGES NAM2K workshop (27-29 October 2011; Tucson, AZ; ~15 participants), convener

ESF exploratory workshop on synoptic-scale climate dynamics over the last millennium (17-20 May 2009; Kippel, CH; ~35 participants), convener

7th Symposium on Fire and Forest Meteorology (23-25 October 2007; Bar Harbor, ME); member of the programming committee.

AAG 2006, 2012 Conference Session “*Tropical Dendrochronology*”, organizer

INVITED
JOURNAL
REVIEWER

Reviewer for >40 ISI-listed journals:

Agricultural and Forest Meteorology, Biotropica, Canadian Journal of Forest Research, Climate Dynamics, Climate of the Past, Climate Research, Climatic Change, Dendrochronologia, Ecology, Ecosystems, Earth and Planetary Science Letters, Fire Ecology, Forest Ecology and Management, Geografisker Annaler, Geology, Geophysical Research Letters, Global Change Biology, Global and Planetary Change, The Holocene, International Journal of Climatology, International Journal of Wildland Fire, Journal of Applied Meteorology and Climatology, Journal of Atmospheric and Solar-Terrestrial Physics, Journal of Climate, Journal of Ecology, Journal of Geophysical Research, Journal of Hydrology, Journal of Tropical Ecology, Land, Nature, Nature Communications, Nature Geoscience, PLoSOne, Population and Environment, Progress in Physical Geography, Quaternary Research, Quaternary Science Reviews, Radiocarbon, Science, Science Advances, Tree Physiology, Tree-Ring Research, Trees Structure and Function

GRANT
REVIEWER

Reviewer for >10 national and international funding agencies:

ERC – European Research Council

FCT – Fundação para a Ciência e a Tecnologia (Portugal)

FFG – Austrian Research Promotion Agency (Austria)

FONDECYT – National Fund for Scientific and Technological Development (Chile)

Fonds de Recherche Nature et Technologies (Quebec)

FWO- Fonds voor Wetenschappelijk Onderzoek (Belgium)

NERC – Natural Environment Research Council (UK)

NOAA – Climate Change Data and Detection (CCDD) Program

NSERC – Natural Sciences and Engineering Research Council of Canada – including invited grant review panelist

NSF – National Science Foundation

- Integrative Organismal Systems
- Geography and Spatial Sciences
- Atmospheric and Geospace Sciences
- Arctic System Science Program

- Paleoclimate Program
- Division of Earth Sciences post-doctoral program

NGS - National Geographic Society

NWO - Netherlands Organisation for Scientific Research

UARIZONA

UArizona College of Science, *Women in Science* lecture series (Fall 2018), organizer
Arid Lands Graduate InterDisciplinary Program (GIDP) executive committee member (2020-present)

Member, Steering Committee for Earth Dynamics Observation cluster hire (5 hires); 2015-2016

Member, Search Committee for Laboratory of Tree-Ring Research Director position; 2014-2015

Member, Search Committee for Dendro-archeology faculty position; 2011

Office of Research and Development: NSF CAREER Support; panel member; spring 2015

30 September 2016: *Female Climate Researchers on Gender and Female Representation in the Academy*; School of Geography and Development; panel member

29 November 2012: NRGSO's *Graduate Professional Development session on Career Planning*; College of Agricultural and Life Sciences; panel member

June 2012: video interview for a film by Regents' Professor David Soren (School of Anthropology): <http://vimeo.com/48419359>

MEDIA INTERACTIONS

Our research is frequently covered by the broad national and international media. In addition to this, the publication of *Tree Story* (and translations) in 2020 has resulted in many media and podcast interviews. I also frequently comment on climate- and wildfire-related topics in op-eds and media (newspaper, magazine, TV, radio) interviews, particularly in Belgium. Below is a selective list.

COVERAGE OF RESEARCH

Belmecheri et al. 2016 (*Nature Climate Change*)

The Conversation: <http://tinyurl.com/gtxea2w>

Yale Climate Connections: <http://tinyurl.com/htp9gqd>

Zocalo Public Square: <http://tinyurl.com/ods642o>

New York Times, LA Times, Washington Post, USA Today, The Guardian (UK), San Francisco Chronicle, Sacramento Bee, Orange County Register, Phoenix New Times, Arizona Daily Star,

Reuters.com, CBS News, Discovery News, NBC News, Nature News and Comments, Vice.com, National Geographic, Weather Channel, New Scientist, Popular Mechanics, R&D Magazine, New Scientist (NL)

>15 radio interviews, including Capital Radio Sacramento, Arizona Public Media, Radio Canada, Radio New Zealand

Trouet et al. 2016 (*PNAS*)

Inside Higher Ed's Academic minute: <http://tinyurl.com/zupfd3v>

The Conversation: <http://tinyurl.com/zxcrk2u>

Earther: <https://tinyurl.com/y7s79rzj>

Washington Post, Archeology magazine, Christian Science Monitor, Atlas of Science, Hakai magazine (Canada), El Pais (Spain), De Morgen (Belgium), Popular Science

NTN24 (Columbia National TV interview), Zona Politics (Tucson regional TV interview)

Trouet et al. 2018 (*Nature Comms*)

NPR, Bloomberg, InsideClimateNews, Le Figaro

Energy Transition (podcast interview)

Wahl et al. 2019 (PNAS)	NPR's Science Friday, AZ 360, ABC10 Sacramento, AZPM, New York Daily News		
COVERAGE OF TREE STORY			
Podcast interviews	In Defense of Plants, Living on Earth, Climate History, Weather Geeks, This Week in Science, Lady Science, Talk Nerdy, Historically Thinking, The Spectator, On Sustainability, Handmade, deBuren, Eik & Ik, Hunebed Centrum		
Tree Story	20 radio interviews, including BYURadio (Constant Wonder), NPR La Repubblica (Italy), Voz Populi (Spain), El Periodico (Spain), Wildflower Magazine, Christian Science Monitor		
Wat bomen ons Vertellen	VPRO Gids, De Volkskrant, NRC Handelsblad, De Morgen, NPO Radio 1, Gazet van Antwerpen, VRT Radio 1, Kerk en Leven, New Scientist (NL), Het Weer Magazine		
OTHER MEDIA INTERACTIONS			
Wildfire	BBC World Service, Scientific American, Washington Post, Background Briefing Het Nieuwsblad, De Standaard, VRT NWS, VRT Radio 1 De Ochtend		
Climate	All Things Considered (NPR), Wired.com, Climate Nexus, Mashable, Science News, Washington Post, Carbon Brief, Climate Feedback, BBC Terzake, De Afspraak, VRT Journaal, VRT Radio 1 De Ochtend, De Standaard, De Standaard podcast, De Morgen, De Tijd, Knack, Trends, Het Nieuwsblad, Humo, KULeuven Campuskrant, EOSWetenschap, Feeling		
Op Eds & Essays	The Guardian, The Scientist		
Other	De Tijd, De Morgen, Knack, De Gids, Vroege Vogels, Samenleving en Politiek Public panel discussion following movie 'The Anthropocene', Loft Cinema, Tucson Video interview for PBS paleoclimate science documentary <i>Taking Earth's temperature</i> ; http://www.takingearthstemperature.org/ Alleen Elvis Blijft Bestaan; 90-minute TV interview (CANVAS, November 2019)		
PROFESSIONAL DEVELOPMENT	Expert Witness Training Academy organized by National Science Foundation (Hamlin School of Law, University of Minnesota, MN; August 1-5 2016); attendee UN Framework on Climate Change COP21 conference (Paris, France, December 6-11 2015); Research and Independent NGO (RINGO) observer		
FIELD CAMPAIGNS			
LEAD ORGANIZER	Tanzania 1998; Zambia 2000, 2002; Sierra Nevada, CA 2005, 2006; Bulgaria 2008; Greece 2010; Turkey 2012; New Mexico 2012; Arizona 2013; Wyoming 2015; Albania, Greece 2015		
PARTICIPANT	Spain 2007; Albania 2008, 2009; Scotland 2009; Russia 2011; Mozambique 2011		
LANGUAGES	Dutch (mother tongue)		
	<i>Understand</i>	<i>Speak</i>	<i>Write</i>
ENGLISH	excellent	excellent	excellent
FRENCH	excellent	very good	very good
GERMAN	excellent	very good	very good