

Personal

Professor Ulf Büntgen

Professor of Environmental Systems Analysis
Department of Geography
University of Cambridge, Downing Place, CB2 3EN Cambridge, UK

Senior Scientist
Swiss Federal Research Institute WSL
Zurcherstrasse 111, 8903 Birmensdorf, Switzerland

Faculty Member
Department of Geography
Masaryk University, Kotlářská 2, 61137 Brno, Czech Republic

Research Associate
CzechGlobe Global Change Research Institute CAS
Bělidla 986/4a, 60300 Brno, Czech Republic

www.buentgen.com

Born July 05, 1976 in Bonn, Germany
Married to Christiane von und zu Gilsa since April 2008, one child, Otto Maria Friedrich, born May 2014



Statistics and scores

Publications = **220** of which **156** are **ISI** listed

h-index = **39/36/30** (according to *Google Scholar/Research Gate/Web of Science*)

Research Gate Score = **43.45**

Main research question(s)

What are the causes and consequences of changes in different, though intertwined, environmental systems across space and time, and how can diverse tree-ring parameters and archives be compiled and analysed to provide answers to this and related inter-/cross-disciplinary research questions?

Education and career

01.2017-present Professor of Environmental Systems Analysis (ESA), Department of Geography, University of Cambridge, UK

01.2017-present Senior Scientist at Swiss Federal Research Institute WSL, Birmensdorf, Switzerland

10.2016-present Faculty Member at the Department of Geography, Masaryk University, Brno, Czech Republic

08.2016 The Electors to the Professorship of Environmental Systems Analysis have elected PD Dr Ulf Büntgen, MA, University of Bonn, PhD, University of Bern, Head of Dendroecology, Swiss Federal Research Institute WSL, into the said Professorship with effect from 1 January 2017

01.2014-12.2016 Head of PAGES (Past Global Changes) working group: Euro-Med2k “Climate of Europe and the Mediterranean of the last 2 millennia” (<http://www.pages-igbp.org/>)

11.2013-present ITRDB board member (<http://www.ncdc.noaa.gov/paleo/treering.html>)

01.2013-12-2016 Head of Dendroecology Group at Swiss Federal Research Institute WSL, Birmensdorf, Switzerland

09.2012-present Associated Senior Scientist at CzechGlobe Global Change Research Institute CAS, Brno, Czech Republic

05.2012 Call for S-Professorship in Palaeoclimatology at the Humboldt-University Berlin together with Group Leadership at GFZ Potsdam (declined)

12.2011 W2-Professorship in Climatology at Department of Geography, University of Bayreuth, Germany (shortlisted)

10.2011 Habilitation (Palaeoclimatology/palaeoecology) at University of Bern: Tree rings and climate – beyond temperature reconstructions

10-12.2010 Guest Professor at University of Madrid, Spain, Department of Astrophysics, collaboration with JF Gonzalez-Rouco

03-04.2009 Associated Research Fellow at Institute of Geography, Masaryk University of Brno, Czech Republic

06.2007-12.2016 Associated Research Fellow of Oeschger Centre for Climate Change Research, University of Bern, Switzerland

11.2006-12.2016 Scientist at Swiss Federal Research Institute WSL, Birmensdorf, Switzerland

11.2006 PhD thesis (Dr phil. nat.), Department of Geography, University of Bern, Switzerland: Long-term European climate reconstructions from high-elevation tree-rings. Grade: *summa cum laude*, supervisors: Wanner H, Esper J, Nicolussi K

09.2004-10.2006 PhD student, University of Bern, Switzerland

09.2003-08.2004 Scientific Research Assistant, Swiss Federal Research Institute WSL, Birmensdorf, Switzerland

08.2003 Master thesis, Department of Geography, University Bonn, Germany: Dendroklimatologische Analysen einer 1000-jährigen Lärchenchronologie aus rezenten und verbauten Hölzern für das Lötschental, Schweiz. Grade: 1.0, supervisors: Winiger M, Esper J, Neuwirth B

04.1999-08.2003 Studies of Geography, Geology and Cartography, University Bonn, Germany

09.1998-04.1999 Stay abroad: Oceanside, California, USA

08.1997-09.1998 Social service: „GL-GL“ Bonn, Germany

06.1997 Allgemeine Hochschulreife: Gymnasium am Ölberg, Königswinter, Germany

1992-1998 Semi-professional Mountain Biker (Team Schauff) with several participations at German, European (e.g. France and Italy) and World Championships (e.g. France and USA)

Expeditions and fieldwork campaigns

07.2016 Indigirka River and Delta in northeastern Siberia, Yakutia, Russia – living, dry-dead, driftwood and subfossil wood (*PI together with Alexander Kirilyanov and Anatoly Nicolaev*)

07.2015 Yana River and Delta in northeastern Siberia, Yakutia, Russia – living, dry-dead, driftwood and subfossil wood (*PI together with Alexander Kirilyanov and Anatoly Nicolaev*)

08.2014 Central Hungary – Burgundy truffle (*Tuber aestivum*) (*PI together with Simon Egli*)

07-08.2013 Lena River and Delta in northeastern Siberia, Yakutia, Russia – living, dry-dead, driftwood and subfossil wood (*PI together with Alexander Kirilyanov and Anatoly Nicolaev*)

02.2013 Czech Republic, northeastern France and southern Germany – random oak sampling (*PI together with Willy Teget*)

07.2012 Coastal east Greenland, Scorsby Sund – driftwood, shrubs, dwarf shrubs and herbs (*PI together with Fritz Schweingruber*)

07.2012 Northwest Iceland – driftwood, shrubs, dwarf shrubs and herbs (*PI together with Fritz Schweingruber*)

07.2011 Coastal east Greenland, Scorsby Sund – driftwood (*PI together with Willy Teget*)

2011-present Soria Province, central Spain – Périgord Black truffle (*Tuber melanosporum*), living oaks and pines, as well as living junipers and construction timbers (*PI together with Simon Egli and Fernando Martínez-Pena*)

07.2010 Coastal east Greenland, Traill Island – driftwood (*PI together with Benoit Sitter and Willy Teget*)

07.2009 Valee de Merveille, southern French Alps – living and dry-dead conifers (*PI*)

10.2008 Sierra de Guadarrama, central Spain – living conifers (*PI together with J. Fidel Gonzalez-Rouco*)

09.2007 Valee de Merveille, southern French Alps – living and dry-dead conifers (*PI together with Jan Esper*)

08.2007 High and Low Caucasus, Georgia – living conifers (*PI together with Fritz Schweingruber*)

10.2006 northern Fennoscandia – living, dry-dead and subfossil pines (*Co-PI together with Jan Esper and David Frank*)

2004-2008, 2013 and 2016 Spanish and French Pyrenees – living conifers, dry-dead and subfossil wood, as well as treeline root-temperature loggers (*PI together with Julio J. Camarero and Jan Esper*)

2003-2006 and 2012 Tatra Mountains, northwestern Carpathian arc – living conifers (*PI together with Jan Esper and David Frank*)

2003-present Lötschental, Swiss Alps – living conifers, historical construction timber, dry-dead wood, settlement structures (*PI together with Jan Esper and David Frank*)

Publication record

in review

Büntgen U (in review) More research on autumnal climate change ecology. *Ecology*

Büntgen U, Eggertsson Ó, Wacker L, Sigl M, Charpentier Ljungqvist F, Di Cosmo N, Plunkett G, Krusic PJ, Esper J, Lane C, Reinig F, Oppenheimer C (in review) Cosmogenic dating and environmental impact of Iceland's major pre-settlement eruption. *Nature Communications*

Büntgen U, Greuter L, Jenny H, Bollmann K, Galvan JD, Liebhold A, Stenseth NC, Mysterud A (in review) Elevational shifts of mountain ungulates in the Swiss Alps. *Ecography*

Büntgen U, Johnson D, Gonzalez-Rouco JF, Luterbacher J, Stenseth NC (in review) Extending 'Detection & Attribution' to global change ecology. *Frontiers in Ecology and the Environment*

Büntgen U, Latorre J, Egli S, Martinez-Pena F (in review) Socio-economic, scientific and political benefits of mycotourism. *Fungal Ecology*

Cerrato R, Cherubini P, Coppola A, **Büntgen U**, Salvatore MC, Baroni C (in review) A tree-ring based reconstruction of historical larch budmoth outbreaks in the Central Italian Alps. *Trees – Structure and Functioning*

Galvan JD, Mysterud A, Hülsmann L, Jenny H, Bollmann K, Senn J, **Büntgen U** (in review) Opposing effects of hunting selection and climate variation on Alpine ibex constitution. *Journal of Applied Ecology*

Gleeson E, Franke J, Trouet V, **Büntgen U**, Esper J, Villalba R, Frank D (in review) Hydroclimatic variations in the upper Rio Santa Cruz Basin, Patagonia, Argentina. *Journal of Hydrometeorology*

Henne P, Bigalke M, **Büntgen U**, Colombaroli D, Conedera M, Feller U, Frank D, Fuhrer J, Grosjean M, Heiri O, Luterbacher J, Mestrot A, Rigling A, Rössler O, Rohr C, Rutishauser T, Schwikowski M, Stampfli A, Szidat S,

Theurillat JP, Weingartner R, Wilcke W, Tinner W (in review) An empirical perspective for understanding climate change impacts in Switzerland. *Regional Environmental Change*

Moser B, **Büntgen U**, Molinier V, Peter M, Sproll L, Stobbe U, Tegel W, Egli S (in review) Vegetation as an indicator for *Tuber aestivum* occurrence in Central Europe. *Journal of Vegetation Science*

Richard F, Vogt-Schilb H, Schatz B, Malaval J-C, Rapior S, Fons F, Bourgade V, Moreau P-A, **Büntgen U** (in review) Causes and consequences of changing Mediterranean fungal ecology over the last 170 years. *Frontiers in Ecology and the Environment*

in revision

Anchukaitis KJ, Wilson R, Briffa KR, **Büntgen U**, Cook ER, D'Arrigo R, Davi N, Esper J, Frank D, Gunnarson B, Hegerl G, Helama S, Klesse S, Krusic PJ, Linderholm HW, Myglan V, Osborn TJ, Zhang P, Rydval M, Schneider L, Schurer A, Wiles G, Zorita E (in revision) Last millennium Northern Hemisphere summer temperatures from tree rings: Part II, spatially resolved reconstructions. *Quaternary Science Reviews*

Büntgen U, Verstege A, Sangüesa Barreda G, Wagner S, Camarero JJ, Krusic P, Zorita E, Ljungqvist FC, Konter O, Oppenheimer C, Tegel W, Gärtner H, Cherubini P, Reinig F, Esper J (in revision) Western Mediterranean climate variability since medieval times. *Journal of Climate*

Düthorn E, Tejedor Vargas E, Kirchhefer A, Timonen M, Holzkämper S, **Büntgen U**, Esper J (in revision) Diverse growth trends and climate responses of Fennoscandian lakeshore and inland trees. *European Journal of Forest Research*

Esper J, Büntgen U, Hartl-Meier C, Oppenheimer C, Schneider L (in revision) Northern Hemisphere temperature anomalies during the 1450s period of ambiguous volcanic forcing. *Bulletin of Volcanology*

Nielsen SS, von Arx G, Damgaard CF, Abermann J, Buchwal A, **Büntgen U**, Treier UA, Barfod AS, Normand S (in revision) Xylem anatomical features provide mechanistic explanation for spatio-temporal variability in growth rates of *Betula nana* from western Greenland. *Arctic, Antarctic, and Alpine Research*

in press

Andrew C, Heegaard E, Kirk P, Bässler C, Heilmann-Clausen J, Krisai-Greilhuber I, Kuyper T, Senn B, **Büntgen U**, Diez J, Egli S, Gange A, Halvorsen R, Hoiland K, Nordén J, Rustøen F, Boddy L, Kauserud H (in press) Big fungal data: pan-European dataset assembly for global change questions in ecology. *Fungal Biology Reviews*

Esper J, **Büntgen U**, Denzer S, Krusic PJ, Luterbacher J, Schäfer R, Schreg R, Werner J (in press) Environmental drivers of historical grain price variations in Europe. *Climate Research*

Hartl-Meier C, Esper J, Liebhold A, Konter O, Rothe A, **Büntgen U** (in press) Effects of host abundance on Alpine insect outbreaks. *Agricultural and Forest Entomology*

2017

220(156) **Büntgen U**, Bagi I, Fekete O, Molinier V, Peter M, Splivallo R, Vahdatzadeh M, Richard F, Murat C, Tegel W, Stobbe U, Martínez-Peña F, Sproll L, Hülsmann L, Nievergelt D, Meier B, Egli S (2017) New insights into the complex relationship between weight and maturity of Burgundy truffles (*Tuber aestivum*). *PLOS ONE* 12(1): e0170375. doi:10.1371/journal.pone.0170375

219(155) Duan J, Esper J, **Büntgen U**, Li L, Xoplaki E, Zhang H, Wang L, Fang Y, Luterbacher J (2017) Weakening of annual temperature cycle over the Tibetan Plateau since the 1870s. *Nature Communications* 8: 14008

218(154) Wilson R, Wilson D, Rydval M, Crone A, **Büntgen U**, Clark S, Ehmer J, Forbes E, Fuentes M, Gunnarson BE, Linderholm HW, Nicolussi K, Wood C, Mills C (2017) Facilitating tree-ring dating of historic conifer timbers using Blue Intensity. *Journal of Archaeological Science* 78: 99-111

217(153) Oppenheimer C, Wacker L, Xu J, Galván JD, Stoffel M, Orchard A, Guillet S, Corona C, Sigl M, Di Cosmo N, Hajdas I, Pan B, Breuker R, Schneider L, Esper J, Fei J, Hammond JOS, **Büntgen U** (2017) Multi-proxy dating of the ‘Millennium Eruption’ of Changbaishan and the Eldgjá lava floods. *Quaternary Science Reviews* 158: 164-171

2016

216(152) Andrew C, Heegaard E, Halvorsen R, Martinez-Pena F, Egli S, Kirk PM, Bäessler C, **Büntgen U**, Aldea J, Høiland K, Boddy L, Kausrud H (2016) Climate impacts on fungal community and trait dynamics. *Fungal Ecology* 22: 17-25

215(151) Blanchette R, Held BW, Hellmann L, Millman L, **Büntgen U** (2016) Arctic driftwood reveals unexpectedly rich fungal diversity. *Fungal Ecology* 23: 58-65

214(150) Bosela M, Popa I, Gomory D, Longauer R, Tobin B, Kyncl J, Kyncl T, Nechita C, Petrás R, Sidor C, Seben V, **Büntgen U** (2016) Effects of postglacial phylogeny and genetic diversity on the growth variability and climate sensitivity of European silver fir. *Journal of Ecology* 104: 716-724

213(149) Brázdil R, Dobrovolný P, Trnka M, **Büntgen U**, Řezníčková L, Kotyza O, Valášek H, Stepanek P (2016) Documentary and instrumental-based drought indices for the Czech Lands back to AD 1501. *Climatic Research* 70: 103-117

212(148) **Büntgen U** (2016) Bridge over troubled water – valuing Russia’s scientific landscape. *Climate Research* 70: 95-98

211 **Büntgen U** (2016) Fritz Schweingruber feiert seinen 80. Geburtstag. *WSLintern* 2: 12-13

210(147) **Büntgen U**, Di Cosmo N (2016) Climatic and environmental aspects of the Mongol withdrawal from Hungary in 1242 CE. *Nature Scientific Reports* 6: 25606, doi: 10.1038/srep25606

209(146) **Büntgen U**, Jäggi M, Stobbe U, Tegel W, Sproll L, Eikenberg J, Egli S (2016) All-clear for gourmets: truffles not radioactive. *Biogeosciences* 13: 1145-1147

208 **Büntgen U**, Ljungqvist CF, Esper J, Luterbacher J, Wagner S, Werner JP, workshop participants (2016) Consolidation, finalization and publication of the Euro-Med2k database. *PAGES Magazine* 24: 43

207(145) **Büntgen U**, Myglan VS, Charpentier Ljungqvist F, McCormick M, Di Cosmo N, Sigl M, Jungclaus J, Wagner S, Krusic PJ, Esper J, Kaplan JO, de Vaan MAC, Luterbacher J, Wacker L, Tegel W, Kirilyanov AV (2016) Cooling and societal change during the Late Antique Little Ice Age from 536 to around 660 AD. *Nature Geoscience* 9: 231-236

- 206(144) Camenisch C, Keller KM, Salvisberg M, Amann B, Bauch M, Blumer S, Brázdil R, Brönnimann S, **Büntgen U**, Campbell BMS, Fernández-Donado L, Fleitmann D, Glaser R, González-Rouco F, Grosjean M, Hoffmann RC, Huhtamaa H, Joos F, Kiss A, Kotyza O, Lehner F, Luterbacher J, Maughan N, Neukom R, Novy T, Priby K, Raible CC, Riemann D, Schuh M, Slavin P, Werner JP, Wetter O (2016) The 1430s: a cold period of extraordinary internal climate variability during the early Spörer Minimum with social and economic impacts in north-western and central Europe. *Climate of the Past* 12: 2107-2126
- 205(143) Dahlgren J, Rizzi S, Schweingruber F, Hellmann L, **Büntgen U** (2016) Age distribution of Greenlandic dwarf shrubs supports concept of negligible actuarial senescence. *Ecosphere* 7(10): e01521. 10.1002/ecs2.1521
- 204(142) Datsenko NM, Sonechkin DM, **Büntgen U**, Yang B (2016) Universal growth modes of high-elevation conifers. *Dendrochronologia* 38: 38-50
- 203(141) Dobrovolný P, Rybníček M, **Büntgen U**, Trnka M, Brázdil R, Stachoň Z, Prokop O, Kolář T (2016) Recent growth coherence in long-term oak (*Quercus* spp.) ring width chronologies in the Czech Republic. *Climatic Research* 70: 133-141
- 202(140) Esper J, Krusic PJ, Ljungqvist FC, Luterbacher J, Career M, Cook E, Davi NK, Hartl-Meier C, Kirilyanov A, Konter O, Myglan V, Timonen M, Treydte K, Trouet V, Villalba R, Wilson RJS, Yang B, **Büntgen U** (2016) Ranking of tree-ring based temperature reconstructions of the past millennium. *Quaternary Science Reviews* 145: 134-151
- 201(139) Girardin MP, Bouriaud O, Hogg T, Kurz WA, Zimmermann NE, Metsaranta J, de Jong R, Frank DC, Esper J, **Büntgen U**, Guo XJ, Bhatti J (2016) No growth stimulation of Canada's boreal forest under half-century of combined warming and CO₂ fertilization. *Proceedings of the National Academy of Science, USA* E8406-E8414, doi: www.pnas.org/cgi/doi/10.1073/pnas.1610156113
- 200 Hartl-Meier C, **Büntgen U**, Esper J (2016) On the occurrence of cyclic larch budmoth outbreaks beyond its geographical hotspots. *TRACE – Tree Rings in Archaeology, Climatology and Ecology* 14: 86-92
- 199(138) Heegaard E, Boddy L, Diez JM, Halvorsen R, Kausrud H, Kuyper TW, Bäessler C, **Büntgen U**, Gange AC, Krisai-Greilhuber I, Andrew CJ, Ayer F, Hoiland K, Kirk P, Egli S (2016) Fine-scale spatiotemporal dynamics of fungal fruiting: prevalence, amplitude, range and continuity. *Ecography* 39: 1-13 doi: 10.1111/ecog.02256
- 198(137) Hellmann L, Agafonov L, Charpentier Ljungqvist F, Churakova (Sidorova) O, Dũthorn E, Esper J, Hũlsmann L, Kirilyanov AV, Moiseev P, Myglan VS, Nikolaev AN, Reinig F, Schweingruber FH, Solomina O, Tegel W, **Büntgen U** (2016) Diverse growth trends and climate responses across Eurasia's boreal forest. *Environmental Research Letters* 11: 074021, doi: 10.1088/1748-9326/11/7/074021
- 197(136) Hellmann L, Agafonov L, Churakova (Sidorova) O, Dũthorn E, Eggertsson O, Esper J, Kirilyanov AV, Knorre AA, Matskovsky V, Moiseev P, Myglan VS, Nikolaev AN, Reinig F, Schweingruber F, Solomina O, Tegel W, **Büntgen U** (2016) Regional coherency of boreal forest growth defines Arctic driftwood provenancing. *Dendrochronologia* 39: 3-9
- 196 Hellmann L, Eggertsson O, **Büntgen U** (2016) Using Arctic driftwood at the interface of marine and terrestrial (paleo-)environmental research. *PAGES Magazine* 24: 50

- 195(135) Hellmann L, Kirilyanov A, **Büntgen U** (2016) Effects of boreal timber rafting on the composition of Arctic driftwood. *Forests* 7, 257; doi:10.3390/f7110257
- 194(134) Hogg A, Southon J, Turney C, Palmer J, Bronk Ramsey C, Fenwick P, Boswijk G, **Büntgen U**, Friedrich M, Helle G, Hughen K, Jones R, Kromer B, Noronha A, Reinig F, Reynard L, Staff R, Wacker L (2016) Decadal resolved Lateglacial radiocarbon evidence from New Zealand kauri. *Radiocarbon* doi: 10.1017/RDC.2016.86
- 193(133) Izdebski A, Holmgren K, Weiberg E, Stocker SR, **Büntgen U**, Florenzano A, Gogou A, Leroy SAG, Luterbacher J, Martrat B, Masi A, Mercuri AM, Montagna P, Sadori L, Schneider A, Sicre MA, Triantaphyllou M, Xoplaki E (2016) Realising consilience: how better communication between archaeologists, historians and natural scientists can transform the study of past climate change in the Mediterranean. *Quaternary Science Reviews* 136: 5-22
- 192(132) Kirilyanov AV, Solomia ON, Vaganov EA, **Büntgen U** (2016) Russian tree-ring research. *Dendrochronologia* 39: 1-2
- 191(131) Konter O, **Büntgen U**, Career M, Timonen M, Esper J (2016) Climate signal age effects in boreal tree-rings: lessons to be learned for paleoclimatic reconstructions. *Quaternary Science Reviews* 142: 164-172
- 190 Konter O, Traut J, Schneider L, **Büntgen U**, Esper J (2016) Evaluating climate sensitivity in tree-ring and Riesling must sugar data from the Palatinate (Germany). *TRACE – Tree Rings in Archaeology, Climatology and Ecology* 14: 60-66
- 189(130) Luterbacher J, Werner J, Smerdon J, Barriopedro D, Fernández-Donado L, Gonzalez-Rouco JF, Barriopedro D, Ljungqvist F, **Büntgen U**, Zorita E, Wagner S, Esper J, McCarroll D, Toreti A, Frank D, Jungclaus J, Barriendos M, Bertolin C, Bothe O, Brázdil R, Camuffo D, Dobrovolný P, Gagen M, García-Bustamante E, Ge Q, Gómez-Navarro J, Guiot J, Hao Z, Hegerl G, Holmgren K, Klimenko V, Martín-Chivelet J, Pfister C, Roberts N, Schindler A, Schurer A, Solomina O, von Gunten L, Wahl E, Wanner H, Wetter O, Xoplaki E, Yuan N, Zanchetti D, Zhang H, Zerefos C (2016) European summer temperatures since Roman times. *Environmental Research Letters* 11: 024001, doi: 10.1088/1748-9326/11/2/024001
- 188(129) Molinier V, Murat C, Baltensweiler A, **Büntgen U**, Martin F, Meier B, Moser B, Sproll L, Stobbe U, Tegel W, Egli S, Peter M (2016) Fine-scale genetic structure of wild *Tuber aestivum* sites in southern Germany. *Mycorrhiza* doi: 10.1007/s00572-016-0719-y
- 187(128) Natalini F, Alejano R, Vázquez-Piqué J, Pardos M, Calama R, **Büntgen U** (2016) Spatiotemporal variability of stone pine (*Pinus pinea* L.) growth response to climate across the Iberian Peninsula. *Dendrochronologia* 40: 72-84
- 186(127) Ponocna T, Spyt B, Kaczka R, **Büntgen U**, Treml V (2016) Growth trends and climate responses of Norway spruce along elevational gradients in East-Central Europe. *Trees – Structure and Function* doi: 10.1007/s00468-016-1396-3
- 185(126) Prokop O, Kolář T, **Büntgen U**, Kyncl J, Kyncl J, Bošeľa M, Choma M, Barta P, Rybníček M (2016) On the paleoclimatic potential of a millennium-long oak ring width chronology from Slovakia. *Dendrochronologia* 40: 93-101

184(125) Schenk-Jäger KM, Egli S, Hanimann D, Senn-Irlet B, Kupferschmidt H, **Büntgen U** (2016) Introducing mushroom fruiting patterns from the Swiss National Poisons Information Centre. *PLOS ONE* 11(9): e0162314. doi:10.1371/journal.pone.0162314

183(124) Sookdeo A, Wacker L, Fahrni S, McIntyre CP, Friedrich M, Reinig F, Nievergelt D, Tegel W, Kromer B, **Büntgen U** (2016) Speed Dating: A Rapid Way to Determine the Radiocarbon Age of Wood by EA-AMS. *Radiocarbon* 216: 1-7

182(123) Taynik AV, Barinov VV, Oidupaa OC, Myglan VS, Reinig F, **Büntgen U** (2016) Growth coherency and climate sensitivity of *Larix sibirica* in the Russian Altai-Sayan Mountains. *Dendrochronologia* 39: 10-16

181(122) Tegel W, Muigg B, **Büntgen U** (2016) The wood of Merovingian weaponry. *Journal of Archaeological Science* 65: 148-153

180 Tegel W, Vanmoerkerke J, Hakelberg D, **Büntgen U** (2016) Des cernes de bois à l'histoire de la conjoncture de la construction et à l'évolution de la pluviométrie en Gaule du Nord entre 500 BC et 500 AD. In: G. Blancquaert/F. Malrain (Hrsg.), *Évolution des sociétés gauloises du Second âge du Fer, entre mutations internes et influences externes. Actes du 38e colloque de l'AFEAF. Revue Archéologique de Picardie n° spécial 30, Amiens 2016*: 639-653

179(121) Trnka M, Fischer M, Bartošová L, Orság M, Kyncl T, Ceulemans R, King J, **Büntgen U** (2016) Potential and limitations of local tree ring records in estimating *a priori* the growth performance of short-rotation coppice plantations. *Biomass & Bioenergy* 92: 12-19

178(120) Wilson R, Anchukaitis K, Briffa K, **Büntgen U**, Cook E, D'Arrigo R, Davi N, Esper J, Frank D, Gunnarson B, Hegerl G, Helema S, Klesse S, Krusic P, Linderholm HW, Myglan V, Osborn T, Rydval M, Schneider L, Schurer A, Wiles G, Zhang P, Zorita E (2016) Last millennium Northern Hemisphere summer temperatures from tree rings: Part I: the long term context. *Quaternary Science Reviews* 134: 1-18

2015

177 **Büntgen U**, et al. (2015) Swiss polar research - Pioneering spirit, passion and excellence. *Bern, Eidg. Dep. für Auswärtige Angelegenheiten EDA* p 36

176 **Büntgen U**, et al. (2015) Frontiers in tree-ring research with a special emphasis on the Black Death. In: Trnka, M, Hayes M (eds): *Evaluation of drought and drought impacts through interdisciplinary methods*. Global Change Research Centre AS CR v.v.i., p 11-20, ISBN: 978-80-87902-12-7

175(119) **Büntgen U**, Egli S, Galván JD, Diez JM, Aldea J, Latorre J, Martínez-Peña F (2015) Drought-induced changes in the phenology, productivity and diversity of Spanish fungi. *Fungal Ecology* 16: 6-18

174(118) **Büntgen U**, Egli S, Schneider L, von Arx G, Rigling A, Camarero JJ, Sangüesa-Barreda G, Fischer CR, Oliach D, Bonet JA, Colinas C, Tegel W, Ruiz Barbarin JJ, Martínez-Peña F (2015) Long-term irrigation effects on Spanish holm oak growth and its black truffle symbiont. *Agriculture, Ecosystems & Environment* 202: 148-159

173(117) **Büntgen U**, Hellmann L, Tegel W, Normand S, Myer-Smith I, Kirilyanov A, Nievergelt D, Schweingruber FH (2015) Temperature-induced recruitment pulses of Arctic dwarf shrub communities. *Journal of Ecology* 103: 489-501

- 172 **Büntgen U**, Jäggi M, Stobbe U, Tegel W, Sproll L, Eikenberg J, Egli S (2015) Ideas and perspectives: truffles not radioactive. *Biogeosciences Discussion* 12: 17851-17856
- 171 **Büntgen U**, Luterbacher J, Charpentier Ljungqvist F, Esper J, Fleitmann D, Gagen M, González-Rouco F, Wagner S, Werner J, Zorita E, Martínez-Peña F (2015) Towards a spatiotemporal expansion of temperature and hydroclimatic proxy archives. *PAGES Magazine* 23: 34
- 170(116) **Büntgen U**, Tegel W, Career M, Krusic PJ, Hayes M, Esper J (2015) Commentary to Wetter et al. (2014): Limited tree-ring evidence for a 1540 European ‘Megadrought’. *Climatic Change* 131: 183-190
- 169(115) **Büntgen U**, Trnka M, Krusic PJ, Kyncl T, Kyncl J, Nicolussi K, Luterbacher J, Zorita E, Charpentier Ljungqvist F, Auer I, Konter O, Schneider L, Tegel W, Stepanek P, Brönnimann S, Hellmann L, Nievergelt D, Esper J (2015) Tree-Ring Amplification of the Early-19th Century Summer Cooling in Central Europe. *Journal of Climate* 28: 5272-5288
- 168(114) Cook ER, Seager R, Kushnir Y, Briffa KR, **Büntgen U**, Frank D, Krusic PJ, Tegel W, van der Schrier G, Andreu-Hayles L, Baillie M, Baittinger C, Bleicher N, Bonde N, Brown D, Career M, Cooper R, Cufar K, Dittmar C, Esper J, Griggs C, Gunnarson B, Günther B, Gutierrez E, Haneca K, Helama S, Herzig F, Heussner K-U, Hofmann J, Janda P, Kontic R, Köse N, Kyncl T, Levanic T, Linderholm H, Manning S, Melvin TM, Miles D, Neuwirth B, Nicolussi K, Nola P, Panayotov M, Popa I, Rothe A, Seftigen K, Seim A, Svarva H, Svoboda M, Thun T, Timonen M, Touchan R, Trotsiuk V, Trouet V, Walder F, Wazny T, Wilson R, Zang C (2015) Old World megadroughts and pluvials during the Common Era. *Science Advances* 1: e1500561
- 167(113) Dobrovolný P, Rybníček M, Kolář T, Brázdil R, Trnka M, **Büntgen U** (2015) A tree-ring perspective on temporal changes in the frequency and intensity of hydroclimatic extremes in the territory of the Czech Republic since 761 AD. *Climate of the Past* 11: 1453-1466
- 166(112) Esper J, Großjean J, Camarero JJ, García-Cervigón Morales AI, Olano JM, González-Rouco JF, **Büntgen U** (2015) Atlantic and Mediterranean synoptic drivers of central Spanish juniper growth. *Theoretical and Applied Climatology* 121: 571-579
- 165(111) Esper J, Konter O, Krusic P, Saurer M, Holzkämper S, **Büntgen U** (2015) Long-term summer temperature variations in the Pyrenees from detrended stable carbon isotopes. *Geochronometria* 42: 53-59
- 164(110) Esper J, Schneider L, Smerdon J, Schöne B, **Büntgen U** (2015) Signals and memory in tree-ring width and density data. *Dendrochronologia* 35: 62-70
- 163(109) Galván JD, **Büntgen U**, Ginzler C, Grudd H, Gutiérrez E, Labuhn I, Camarero JJ (2015) Drought-induced weakening of growth-temperature associations in Mediterranean high-elevation forests. *Global and Planetary Change* 124: 95-106
- 162(108) Gärtner H, Cherubini P, Fonti P, von Arx G, Schneider L, Nievergelt D, Verstege A, Bast A, Schweingruber FH, **Büntgen U** (2015) Technical challenges in tree-ring research including wood anatomy and dendroecology. *Journal of Visualized Experiments* doi: 10.3791/52337 (e52337)
- 161(107) González de Andrés E, Camarero JJ, **Büntgen U** (2015) Complex climate constraints of upper treeline formation in the Pyrenees. *Trees, Structure and Function* 29: 941-952

- 160 Hartl-Meier C, **Büntgen U**, Esper J (2015) How is Drought Affecting Forest Growth and How Can Stable Isotopes Contribute to Answer this Question? In: Trnka M, Hayes M (eds): Evaluation of drought and drought impacts through interdisciplinary methods. Global Change Research Centre AS CR v.v.i., p 21-25, ISBN: 978-80-87902-12-7
- 159(106) Hartl-Meier C, Zang C, **Büntgen U**, Esper J, Rothe A, Göttelein A, Dirnböck T, Treydte K (2015) Uniform climate sensitivity in tree-ring stable isotopes across species and sites in a mid-latitude temperate forest. *Tree Physiology* 35: 4-15
- 158 Hellmann L, Tegel W, **Büntgen U** (2015) Arktisches Treibholz – ein einzigartiges Umweltarchiv. *GeoPanorama* 3: 10-14
- 157(105) Hellmann L, Tegel W, Kirilyanov AV, Eggertsson O, Esper J, Agafonov L, Nikolaev AN, Knorre AA, Myglan VS, Sidorova O, Schweingruber FH, Nievergelt D, Verstege A, **Büntgen U** (2015) Timber logging in central Siberia is the main source for recent Arctic driftwood. *Arctic, Antarctic and Alpine Research* 47: 449-460
- 156(104) Kolář T, Čermák P, Oulehle F, Trnka M, Štěpánek P, Cudlín P, Hruška J, **Büntgen U**, Rybníček M (2015) Pollution control enhanced spruce growth in the “Black Triangle” near the Czech-Polish border. *Science of the Total Environment* 538: 703-711
- 155(103) Konter O, Esper J, Liebhold A, Kyncl T, Schneider L, Duthorn E, **Büntgen U** (2015) Tree-ring evidence for the historical absence of cyclic larch bud moth outbreaks in the Tatra Mountains. *Trees, Structure and Function* 29: 809-814
- 154 Konter O, Rosner K, Kyncl T, Esper J, **Büntgen U** (2015) Spatiotemporal variations in the climatic Response of *Larix decidua* from the Slovakian Tatra Mountains. *TRACE* 13: 62-68
- 153 Nievergelt D, Hellmann L, **Büntgen U** (2015) Ein absolut datierbarer Schweizer Jahrringkalender bis ins Spätglazial? Einem Traum einen Schritt näher. *GeoPanorama* 3: 15-18
- 152(102) Rybníček M, Čermák P, Žid T, Kolář T, Trnka M, **Büntgen U** (2015) Exploring growth variability and crown vitality of sessile Oak (*Quercus petraea*) in the Czech Republic. *Geochronometria* 42: 17-27
- 151(101) Schmid BV, **Büntgen U**, Easterday WR, Ginzler C, Walloe L, Bramanti B, Stenseth NC (2015) Climate-driven introduction of the Black Death and successive plague reintroductions into Europe. *Proceedings of the National Academy of Science, USA* 112: 3020-3025
- 150(100) Schneider L, Smerdon JE, **Büntgen U**, Wilson RJS, Myglan VS, Kirilyanov AV, Esper J (2015) Revising midlatitude summer temperatures back to A.D. 600 based on a wood density network. *Geophysical Research Letters* 42: doi:10.1002/2015GL063956
- 149(99) Seim A, Treydte K, Trouet V, Frank D, Fonti P, Tegel W, Panayotov M, Fernandez Donado L, Büntgen U (2015) Climate sensitivity of Mediterranean pine growth reveals distinct east-west dipole. *International Journal of Climatology* 35: 2503–2513
- 148(98) Sigl M, Winstrup M, McConnell JR, Welten KC, Plunkett G, Ludlow F, **Büntgen U**, Caffee M, Chellman N, Dahl-Jensen D, Fischer H, Kipfstuhl S, Kostick C, Maselli OJ, Mekhaldi F, Mulvaney R, Muscheler R, Pasteris DR,

Pilcher JR, Salzer M, Schüpbach S, Steffensen JP, Vinther B, Woodruff TE (2015) Timing and global climate forcing of volcanic eruptions during the past 2,500 years. *Nature* 523: 543-549

147(97) Tegel W, **Büntgen U** (2015) Historisches und aktuelles Tannenwachstum in Europa – eine dendroökologische Analyse. *Allgemeine Forst und Jagdzeitschrift* 186: 32-44

146(96) Treml V, Ponocná T, King G, **Büntgen U** (2015) A new tree ring-based summer temperature reconstruction from the Czech Sudetes Mountains reveals a large amplitude range over the past 300 years and fills a spatial gap in palaeoclimatic networks. *International Journal of Climatology* 35: 3160-3171

145(95) Zhang H, Yuan N, Esper J, Werner J, Xoplaki E, **Büntgen U**, Treydte K, Luterbacher J (2015) Non-Climate Long Term Memory in Tree Ring Proxies. *Environmental Research Letters* 10: 084020

2014

144(94) Battipaglia G, **Büntgen U**, McCloskey S, Blarquez O, Denis N, Paradis L, Brossier B, Fournier T, Carcaillet C (2014) Long-term effects of climate and land-use change on larch budmoth outbreaks in the French Alps. *Climate Research* 62: 1-14

143(93) Boddy L, **Büntgen U**, Egli S, Gange A, Heegaard E, Kirk P, Mohammad A, Kauserud H (2014) Climate variation effects on fungal fruiting. *Fungal Ecology* 10: 20-33

142 Bollmann K, Jenny H, **Büntgen U** (2014) Europäische Frühlingstemperaturen begünstigen die Vitalität des Alpensteinbocks. CH-WILDiNFO 1: 2-3

141(92) Bunde A, Ludescher J, Franzke CLE, **Büntgen U** (2014) How significant is West Antarctic warming? *Nature Geoscience* 7: 246-247

140 **Büntgen U** (2014) Paläoklimaforschung, Klimaschwankungen und kulturgeschichtliche Implikationen. *Geographische Rundschau* 7/8: 4-6

139(91) **Büntgen U**, Egli S (2014) Breaking new ground at the interface of dendroecology and mycology. *Trends in Plant Science* 19: 613-614

138 **Büntgen U**, Tegel W (2014) Dendroklimatologische Beiträge zur Klimageschichte. In Die Schweiz vom Paläolithikum bis zum Mittelalter. SPM VII Archäologie der Zeit von 800 bis 1350. *Verlag Archäologie Schweiz, Basel* ISBN 978-3-908006-58-9 pp. 53-57

137(90) **Büntgen U**, Hellmann L (2014) The Little Ice Age in scientific perspective: Cold spells and caveats. *Journal of Interdisciplinary History* XLIV: (3) 353-368

136(89) **Büntgen U**, Jenny H, Liebhold A, Mysterud A, Egli S, Nievergelt D, Stenseth NC, Bollmann K (2014) European springtime temperature synchronizes ibex horn growth across the eastern Swiss Alps. *Ecology Letters* 17: 303-313

135(88) **Büntgen U**, Kirilyanov AV, Hellmann L, Nikolayev A, Tegel W (2014) Cruising an archive: on the palaeoclimatic value of the Lena Delta. *The Holocene* 24: 627-630

- 134(87) **Büntgen U**, Psomas A, Schweingruber FH (2014) Introducing wood anatomical and dendrochronological aspects of herbaceous plants: applications of the Xylem Database to vegetation science. *Journal of Vegetation Science* 25: 967-977
- 133(86) **Büntgen U**, Tegel W, Kaplan JO, Schaub M, Hagedorn F, Bürgi M, Brázdil R, Helle G, Carrer M, Heussner KU, Hofmann J, Kontic R, Kyncl T, Kyncl J, Camarero JJ, Tinner W, Esper J, Liebhold A (2014) Placing unprecedented recent fir growth in a European-wide and Holocene-long context. *Frontiers in Ecology and the Environment* 12: 100-106
- 132(85) **Büntgen U**, Wacker L, Nicolussi K, Sigl M, Gütler D, Tegel W, Krusic PJ, Esper J (2014) Extraterrestrial confirmation of tree-ring dating. *Nature Climate Change* 4: 404-405
- 131(84) Esper J, Dühorn E, Krusic PJ, Timonen M, **Büntgen U** (2014) Northern European summer temperature variations over the Common Era from integrated tree-ring density records. *Journal of Quaternary Science* 29: 487-494
- 130(83) Galván JD, Camarero JJ, Ginzler C, **Büntgen U** (2014) Spatial diversity of recent trends in Mediterranean tree growth. *Environmental Research Letters* 9: 084001 (11pp) doi: 10.1088/1748-9326/9/8/084001
- 129(82) Konter O, Holzkämper S, Helle G, **Büntgen U**, Saurer M, Esper J (2014) Climate sensitivity and parameter coherency in annually resolved $\delta^{13}\text{C}$ and $\delta^{18}\text{O}$ from *Pinus uncinata* tree-ring data in the Spanish Pyrenees. *Chemical Geology* 377: 12-19
- 128(81) Kress A, Hangartner S, Bugmann H, **Büntgen U**, Frank DC, Leuenberger M, Siegwolf RTW, Saurer M (2014) Swiss tree-rings reveal warm and wet summers during medieval times. *Geophysical Research Letters* 41(5): 1732-1737
- 127 Luterbacher J, Werner J, Fleitmann D, Gonzalez-Rouco JF, McCarroll D, Wagner S, Zorita E, Gómez-Navarro J, **Büntgen U**, Esper J (2014) Hydroclimatic reconstructions over Europe and the Mediterranean. *PAGES Magazine* 22: 38
- 126 PAGES 2k Consortium (2014) PAGES 2k — A community-driven framework for climate reconstructions. *EOS* 95: 361-368
- 125(80) Schneider L, Esper J, Timonen M, **Büntgen U** (2014) Detection and evaluation of an early divergence problem in Northern Fennoscandian tree-ring data. *Oikos* 123(5): 559-566
- 124(79) Tegel W, Seim A, Hakelberg D, Hoffmann S, Panev M, Westphal T, **Büntgen U** (2014) A recent growth increase of European beech (*Fagus sylvatica* L.) at its Mediterranean distribution limit contradicts drought stress. *European Journal of Forest Research* 133: 61-71
- (123) Werner JP, **Büntgen U**, Ljungqvist FC, Esper J, Fernández-Donado L, Gonzalez-Rouco FJ, Luterbacher J, McCarroll D, Smerdon JE, Wagner S, Wahl ER, Wanner H, Zorita E (2014) The Medieval Climate (A)nomaly over Europe. *Geophysical Research Abstracts* 15: 2013-9209

2013

- 122(78) Bunde A, **Büntgen U**, Ludescher J, Luterbacher J, von Storch H (2013) Is there memory in precipitation? *Nature Climate Change* 3: 174-175

- 121 **Büntgen U** (2013) In Memoriam – Klaus Felix Kaiser. *TRACE* 11: 6-7
- 120(77) **Büntgen U**, Kyncl T, Ginzler C, Jacks DS, Esper J, Tegel W, Heussner KU, Kyncl J (2013) Filling the Eastern European gap in millennium-long temperature reconstructions. *Proceedings of the National Academy of Science, USA* 110: 1773-1778
- 119(76) **Büntgen U**, Martinez-Peña F, Aldea J, Rigling A, Fischer EM, Camarero JJ, Hayes MJ, Faton V, Egli S (2013) Declining pine growth in Central Spain coincides with increasing diurnal temperature range since the 1970s. *Global and Planetary Change* 107: 177-185
- 118(75) **Büntgen U**, Peter M, Kauserud H, Egli S (2013) Unraveling environmental drivers of a recent increase in Swiss fungi fruiting. *Global Change Biology* 19: 2785-2794
- 117 Egli S, **Büntgen U** (2013) Périgord-Trüffel bald auch in der Schweiz? *Schweizerische Zeitschrift für Pilzkunde* 1: 16
- 116 Egli S, **Büntgen U** (2013) Les truffes du Périgord-bientôt en Suisse? *Bulletin Suisse de mycologie* 1: 17
- 115(74) Esper J, **Büntgen U**, Luterbacher J, Krusic PJ (2013) Testing the hypothesis of globally missing rings in temperature sensitive dendrochronological data. *Dendrochronologia* 31: 216-222
- 114(73) Esper J, Schneider L, Krusic PJ, Luterbacher J, **Büntgen U**, Timonen M, Sirocko F, Zorita E (2013) European summer temperature response to annually dated volcanic eruptions over the past nine centuries. *Bulletin of Volcanology* 75: 736-750
- 113(72) Glur L, Wirth SB, **Büntgen U**, Gilli A, Haug GH, Schär C, Anselmetti FS (2013) Frequent floods in the European Alps coincide with cooler periods of the past 2500 years. *Nature – Scientific Reports* 3: 2770; doi: 10.1038/srep02770
- 112(71) Hellmann L, Tegel W, Eggertsson O, Schweingruber FH, Blanchette R, Gärtner H, Kirilyanov A, **Büntgen U** (2013) Tracing the origin of Arctic driftwood. *Journal of Geophysical Research – B* 118: 68-76 (This paper was highlighted by *AGU* and discussed in *Science*)
- 111 Hellmann L, Tegel W, Eggertsson O, Schweingruber FH, Blanchette R, Gärtner H, Kirilyanov A, **Büntgen U** (2013) On the wood anatomical importance in Arctic driftwood research. *TRACE* 11: 160-165
- 110(70) Kauserud H, Heegaard E, **Büntgen U**, Halvorsen R, Egli S, Senn-Irlet B, Greilhuber IK, Dämon W, Sparks T, Nordén J, Høiland K, Kirk P, Semenov M, Stenseth NC, Boddy L (2013) Reply to Gange et al.: Climate driven changes in the fungal fruiting season in the UK. *Proceedings of the National Academy of Science, USA* 110: E335
- 109(69) King G, Fonti P, Nievergelt D, **Büntgen U**, Frank D (2013) Climatic drivers of hourly to yearly tree radius variations along a 6°C natural warming gradient. *Agricultural and Forest Meteorology* 168: 36-46
- 108 Konter O, Holzkämper S, Helle G, **Büntgen U**, Esper J (2013) Climate signals in annually resolved $\delta^{13}\text{C}$ and $\delta^{18}\text{O}$ tree-ring data from *Pinus uncinata* in the Spanish Pyrenees. *TRACE* 11: 77-84
- 107(68) PAGES 2k Consortium (2013) Continental-scale temperature variability over the Common Era. *Nature Geoscience* 6: 339-346

106 Riechelmann D, Schmidhalter M, **Büntgen U**, Esper J (2013) Extending a high-elevation larch ring width chronology from the Simplon region in the Swiss Alps over the past millennium. *TRACE* 11: 103-107

105(67) Schweingruber FH, **Büntgen U** (2013) What is 'wood' – An anatomical re-definition. *Dendrochronologia* 31: 187-191

104(66) Schweingruber FH, Hellmann L, Tegel W, Braun S, Nievergelt D, **Büntgen U** (2013) Evaluating the wood anatomical and dendroecological potential of Arctic dwarf shrubs. *LAWA Journal* 34: 485-497

103(65) Stobbe U, Egli S, Tegel W, Peter M, Sproll L, **Büntgen U** (2013) Potential and limitations of Burgundy truffle cultivation. *Applied Microbiology and Biotechnology* 97: 5215-5224

102(64) Stobbe U, Stobbe A, Sproll L, Tegel W, Peter M, **Büntgen U**, Egli S (2013) New evidence for Burgundy truffle and Norway spruce symbiosis. *Mycorrhiza* doi: 10.1007/s00572-013-0508-9

101 Tegel W, Hakelberg D, Vanmoerkerke J, **Büntgen U** (2013) Jahrringe als Quellen für Baukonjunktur und Niederschlag in Nordgallien 500 BC–500 AD. *Dendro-Chronologie, -Typologie, -Ökologie. Festschrift für André Billamboz zum 65. Geburtstag*. Freiburg: 145-156

2012

100(63) Anchukaitis KJ, Breitenmoser P, Briffa KR, Buchwald A, **Büntgen U**, Cook ER, D'Arrigo RD, Esper J, Evans MN, Frank D, Grudd H, Gunnarson B, Hughes MK, Kirilyanov AV, Körner C, Krusic PJ, Luckman B, Melvin TM, Salzer MW, Shashkin AV, Timmermann C, Vaganov EA, Wilson RJS (2012) No evidence for misdating of tree-ring chronologies associated with volcanic cooling. *Nature Geoscience* doi:10.1038/ngeo1645

99 **Büntgen U**, Egli S, Senn-Irlet B (2012) Les changements climatiques prolongent-ils la saison des champignons? *La Forêt* 9: 5

98(62) **Büntgen U**, Egli S, Camarero JJ, Fischer EM, Stobbe U, Kauserud H, Tegel W, Sproll L, Stenseth NC (2012) Drought-induced decline in Mediterranean truffle harvest. *Nature Climate Change* 2: 827-829

97(61) **Büntgen U**, Egli S, Tegel W, Stobbe U, Sproll L, Elburg R, Peter M, Nievergelt D, Cherubini P, Stenseth NC (2012) Illuminating the mysterious world of truffles. *Frontiers in Ecology and the Environment* 10: 462-463

96(60) **Büntgen U**, Frank D, Neuenschwander T, Esper J (2012) Fading temperature sensitivity of Alpine tree growth at its Mediterranean margin and associated effects on large-scale climate reconstructions. *Climatic Change* 114: 651-666

95(59) **Büntgen U**, Ginzler C, Esper J, Tegel W, McMichael AJ (2012) Digitizing historical plague. *Clinical Infectious Diseases* 55: 1586-1588

94(58) **Büntgen U**, Kaczka RJ, Trnka M, Rigling A (2012) Ensemble estimates reveal a complex hydroclimatic sensitivity of pine growth at Carpathian cliff sites. *Agricultural and Forest Meteorology* 160: 100-109

93(57) **Büntgen U**, Kauserud H, Egli S (2012) Linking mushroom productivity and phenology to climate variability. *Frontiers in Ecology and the Environment* 10: 14-19

- 92(56) **Büntgen U**, Tegel W, Heussner K-U, Hofmann J, Kontic R, Kyncl T, Cook ER (2012) Effects of sample size in dendroclimatology. *Climate Research* 53: 263-269
- 91(55) Dorado-Linan I, **Büntgen U**, Gonzalez-Rouco F, Zorita E, Montavez JP, Gomez-Navarro JJ, Brunet M, Heinrich I, Helle G, Gutierrez E (2012) Estimating 750 years of temperature variations and uncertainties in the Pyrenees by tree-ring reconstructions and climate simulations. *Climate of the Past* 8: 919-933
- 90(54) Esper J, **Büntgen U**, Timonen M, Frank DC (2012) Variability and extremes of northern Scandinavian summer temperatures over the past two millennia. *Global and Planetary Change* 88-89: 1-9
- 89(53) Esper J, Frank DC, Timonen M, Zorita E, Wilson RJS, Luterbacher J, Holzkämper S, Nievergelt D, Verstege A, **Büntgen U** (2012) Orbital forcing of tree-ring data. *Nature Climate Change* 2: 862-866
- 88(52) Jover E, Ward A, **Büntgen U** (2012) Linking long-term temperature variability to population density in Andorra, Central Pyrenees. *Population and Environment* doi: 10.1007/s11111-012-0181-5
- 87(51) Kauserud H, Heegaard E, **Büntgen U**, Halvorsen R, Egli S, Boddy L, Senn-Irlet B, Greilhuber I, Dämon W, Sparks T, Nordén J, Høiland K, Kirk P, Semenov M, Stenseth NC (2012) Warming-induced shift in European mushroom fruiting phenology. *Proceedings of the National Academy of Science, USA* 109: 14488-14493
- 86 Luterbacher J, García-Herrera R, Akcer-On S, Allan R, Alvarez-Castro MC, Benito G, Booth J, **Büntgen U**, Cagatay N, Colombaroli D, Davis B, Esper J, Felis T, Fleitmann D, Frank D, Gallego D, Garcia-Bustamante E, Glaser R, González-Rouco JF, Goosse H, Kiefer T, Macklin MG, Manning S, Montagna P, Newman L, Power MJ, Rath V, Ribera P, Riemann D, Roberts N, Silenzi S, Tinner W, Valero-Garcés B, van der Schrier G, Tzedakis C, Vannière B, Vogt S, Wanner H, Werner JP, Willett G, Williams MH, Xoplaki E, Zerefos CS, Zorita E (2012) A review of 2000 years of paleoclimatic evidence in the Mediterranean. In: Lionello P (Ed.), *The Climate of the Mediterranean region: From the Past to the Future*. Elsevier, Amsterdam, The Netherlands, pp. 87-185
- 85(50) McCormick M, **Büntgen U**, Cane MA, Cook ER, Harper K, Huybers P, Litt T, Manning SW, Mayewski PA, More AFM, Nicolussi K, Tegel T (2012) Climate change during and after the Roman Empire: Reconstructing the past from scientific and historical evidence. *Journal of Interdisciplinary History* XLIII: 2 169-220
- 84(49) Morellón M, Pérez-Sanz A, Corella JP, **Büntgen U**, Catalán J, González-Sampériz P, González-Trueba JJ, López-Sáez JA, Moreno A, Pla-Rabes S, Saz-Sánchez MA, Scussolini P, Serrano E, Steinhilber F, Stefanova V, Vegas-Vilarrúbia T, Valero-Garcés B (2012) A multi-proxy perspective on millennium-long climate variability in the Southern Pyrenees. *Climate of the Past* 8: 683-700
- 83(48) Seim A, **Büntgen U**, Fonti P, Haska H, Herzig F, Tegel W, Trouet V, Treydte K (2012) The paleoclimatic potential of a millennium-long tree-ring width chronology from Albania. *Climate Research* 51: 217-228
- 82(47) Stobbe U, **Büntgen U**, Sproll L, Tegel W, Egli S, Fink S (2012) Spatial distribution and ecological variation of re-discovered German truffle habitats. *Fungal Ecology* 5: 591-599
- 81(46) Tegel W, Hakelberg D, Elbrüg R, Stäuble H, **Büntgen U** (2012) Early Neolithic water wells reveal the world's oldest wood architecture. *PLoS ONE* 7(12): e51374. doi:10.1371/journal.pone.0051374
- 80(45) Trachsel M, Kamenik C, Grosjean M, McCarroll D, Moberg A, Brázdil R, **Büntgen U**, Dobrovolny P, Esper J, Frank DC, Friedrich M, Glaser R, Laroque-Tobler I, Nicolussi K, Riemann D (2012) Multi-archive summer temperature reconstruction for the European Alps, AD 1053-1996. *Quaternary Science Reviews* 46: 66-79

79(44) Treml V, Ponocná T, **Büntgen U** (2012) Growth trends and temperature responses of treeline Norway spruce in the Czech-Polish Sudetes Mountains. *Climate Research* 55: 91-103

2011

78 Werner Bellwald W, Schmidhalter M, Flückiger-Seiler R, Bellwald I, Rieder C, Freund H, **Büntgen U** (2011) Holzzahrringe und ihre Aussagekraft. Aufschlussreiche Resultate für die Walliser Bauernhausforschung. In Bauernhäuser der Schweiz, Wallis 3.1

77(43) **Büntgen U**, Brazdil R, Dobrovoly P, Trnka M, Kyncl T (2011) Five centuries of Southern Moravian drought variations revealed from living and historic trees. *Theoretical and Applied Climatology* 105: 167-180

76(42) **Büntgen U**, Brázdil R, Heussner K-U, Hofmann J, Kontic R, Kyncl T, Pfister C, Chromá K, Tegel W (2011) Combined dendro-documentary evidence of Central European hydroclimatic springtime extremes over the last millennium. *Quaternary Science Reviews* 30: 3947-3959

75(41) **Büntgen U**, Raible C, Frank D, Helama S, Cunningham L, Hofer D, Nievergelt D, Verstege A, Stenseth N, Esper J (2011) Causes and consequences of past and projected Scandinavian summer temperatures, 500-2100 AD. *PLoS ONE* 6(9): e25133. doi:10.1371/journal.pone.0025133

74 **Büntgen U**, Tegel W (2011) European tree-ring data and the Medieval Climate Anomaly. *PAGES* 19: 14-15

73(40) **Büntgen U**, Tegel W, Nicolussi K, McCormick M, Frank D, Trouet V, Kaplan J, Herzig F, Heussner U, Wanner H, Luterbacher J, Esper J (2011) 2500 years of European climate variability and human susceptibility. *Science* 331: 578-582

72(39) **Büntgen U**, Tegel W, Egli S, Stobbe U, Sproll L, Stenseth NC (2011) Truffles and climate change. *Frontiers in Ecology and the Environment* 9: 150-151

2010

71(38) Affolter P, **Büntgen U**, Esper J, Rigling A, Weber P, Luterbacher J, Frank D (2010) Inner Alpine conifer response to 20th century drought swings. *European Journal of Forest Research* 129: 289-298

70(37) Battipaglia G, Frank DC, **Büntgen U**, Dobrovoly P, Brazdil R, Pfister C, Esper J (2010) Five centuries of Central European temperature extremes reconstructed from tree-ring density and documentary evidence. *Global and Planetary Change* 72: 182-191

69(36) **Büntgen U** (2010) Book Review: Interannuelle Klima-Wachstums-Beziehung zentraleuropäischer Bäume von 1901 bis 1971. Eine dendroklimatologische Netzwerkanalyse. *Erdkunde* 64: 389-391

68(35) **Büntgen U**, Schweingruber F (2010) Environmental change without climate change? *New Phytologist* 18: 646-651

67(34) **Büntgen U**, Brázdil R, Frank DC, Esper J (2010) Three centuries of Slovakian drought dynamics. *Climate Dynamics* 35: 315-329

- 66(33) **Büntgen U**, Frank D, Trouet V, Esper J (2010) Diverse climate sensitivity of Mediterranean tree-ring width and density. *Trees, Structure and Function* 24: 261-273
- 65(32) **Büntgen U**, Franke J, Frank D, Wilson R, Gonzales-Rouco F, Esper J (2010) Assessing the spatial signature of European climate reconstructions. *Climate Research* 41: 125-130
- 64(31) **Büntgen U**, Trouet V, Frank D, Leuschner HH, Friedrichs D, Luterbacher J, Esper J (2010) Tree-ring indicators of German summer drought over the last millennium. *Quaternary Science Reviews* 29: 1005-1016
- 63(30) Corona C, Guiot J, Edouard JL, Chalié F, **Büntgen U**, Nola P, Urbinati C (2010) Millennium-long summer temperature variations in the European Alps as reconstructed from tree rings. *Climate of the Past* 6: 379-400
- 62(29) Esper J, Frank DC, Battipaglia G, **Büntgen U**, Holert C, Treydte K, Siegwolf R, Saurer M (2010) Low-frequency noise in $\delta^{13}\text{C}$ and $\delta^{18}\text{O}$ tree ring data: A case study of *Pinus uncinata* in the Spanish Pyrenees. *Global Biogeochemical Cycles* 24: 10.1029/2010GB003772
- 61(28) Esper J, Frank D, **Büntgen U**, Verstege A, Hantemirov RM, Kirilyanov A (2010) Trends and uncertainties in Siberian indicators of 20th century warming. *Global Change Biology* 16: 386-398
- 60(27) Frank DC, Esper J, Raible CC, **Büntgen U**, Trouet V, Joos F, Stocker B (2010) Ensemble reconstruction constraints of the global carbon cycle sensitivity to climate. *Nature* 463: 527-530
- 59 Fonti P, Moser L, Franzen J, King G, Nievergelt D, **Büntgen U**, Esper J, Luterbacher J, Frank D (2010) Temperature-induced differences in timing of intra-annual growth of subalpine *Larix decidua* and *Picea abies*. *Geophysical Research Abstracts* 12: 2010-6746
- 58(26) Johnson DM, **Büntgen U**, Kausrud K, Frank DC, Haynes KJ, Liebhold AM, Esper J, Stenseth NC (2010) Climate change forces elevation shift in outbreak epicenter of larch budmoth. *Proceedings of the National Academy of Science, USA* 107: 20576-20581
- 57(25) Kausrud KL, Begon M, Ben Ari T, Viljugrein H, Esper J, **Büntgen U**, Leirs H, Junge C, Yang B, Yang M, Xu L, Stenseth NC (2010) Modeling the epidemiological history of plague in Central Asia: paleoclimatic forcing on a disease system over the past millennium. *BMC Biology* 8: 112 doi:10.1186/1741-7007-8-112
- 56(24) Moser L, Fonti P, **Büntgen U**, Franzen J, Esper J, Luterbacher J, Frank D (2010) Timing and duration of European larch growing season along altitudinal gradients in the Swiss Alps. *Tree Physiology* 30: 225-233
- 55 Seim A, Treydte K, **Büntgen U**, Esper J, Fonti P, Haska H, Herzig F, Tegel W, Faust D (2010) Exploring the potential of *Pinus heldreichii* CHRIST for long-term climate reconstruction in Albania. *TRACE* 8: 75-82
- 54(23) Tegel W, Vanmoerkerke J, **Büntgen U** (2010) Updating historical tree-ring records for climate reconstruction. *Quaternary Science Reviews* 29: 1957-1959
- 53(22) Visser H, **Büntgen U**, D'Arrigo R, Petersen A (2010) Detecting instabilities in tree-ring proxy calibration. *Climate of the Past* 6: 225-255

2009

- 52 Babst F, Frank D, **Büntgen U**, Nievergelt D, Esper J (2009) Effect of sample preparation and scanning resolution on the Blue Reflectance of *Picea abies*. *TRACE* 7: 188-195
- 51 **Büntgen U** (2009) Was uns Jahrringe über die Klimageschichte Nordhessens erzählen – Ergebnisse dendroklimatologischer Untersuchungen. In: von Gilsa FW, Scherb R (eds) *Mosaiksteine einer 800jährigen Dorfgeschichte*. 568 pp
- 50 **Büntgen U**, Luterbacher J (2009) Alpine Klimageschichte vom Hohen Mittelalter bis in die Gegenwart – Was uns Jahrringe und historische Quellen Erzählen. *Blätter aus der Walliser Geschichte XLI. Band 2009*: 103-121
- 49 **Büntgen U**, Frank D, Carrer M, Urbinati C, Esper J (2009) Improving Alpine summer temperature reconstructions by increasing sample size. *TRACE* 7: 36-43
- 48(21) **Büntgen U**, Frank DC, Liebhold A, Johnson D, Carrer M, Urbinati C, Grabner M, Nicolussi K, Levanic T, Esper J (2009) Three centuries of insect outbreaks across the European Alps. *New Phytologist* 182: 929-941
- 47 **Büntgen U**, Wilson R, Wilmking M, Niedzwiedz T, Bräuning A (2009) The ‘Divergence Problem’ in tree-ring research. *TRACE* 7: 212-219
- 46(20) Corona C, Guiot J, Edouard JL, Chalié F, **Büntgen U**, Nola P, Urbinati C (2009) Millennium-long summer temperature variations in the European Alps as reconstructed from tree rings. *Climate of the Past Discussion* 4: 1-80
- 45 Esper J, Frank D, **Büntgen U**, Battipaglia G, Franke J, Trouet V (2009) How to test for divergence in tree-ring timeseries? In: Young G, McCarroll D (Eds.) Millennium Milestone Meeting 3, *Proceedings Volume, Mallorca, Spain*, 3-5 March 2009: 112-113
- 44 Esper J, Frank D, **Büntgen U**, Kirilyanov A (2009) Influence of pith offset on tree-ring chronology trend. *TRACE* 7: 205-210
- 43(19) Frank D, **Büntgen U**, Esper J (2009) Response to “Late 20th century growth acceleration in greek firs (*Abies cephalonica*) from Cephalonica Island, Greece: A CO2 fertilization effect? *Dendrochronologia* 27: 223-227
- 42(18) Friedrichs D, **Büntgen U**, Esper J, Frank D, Neuwirth B, Löffler J (2009) Complex climate controls on 20th century oak growth in Central-West Germany. *Tree Physiology* 29: 39-51
- 41(17) Friedrichs D, Trouet V, **Büntgen U**, Frank DC, Esper J, Neuwirth B, Löffler J (2009) Species-specific climate sensitivity of tree growth in Central-West Germany. *Trees, Structure and Function* 23: 729-739
- 40 Hoffmann K, **Büntgen U**, Kyncl T, Brazdil R, Esper J (2009) On the potential of fir ring width data for summer drought reconstruction in southern Moravia, Czech. *TRACE* 7: 57-63
- 39(16) Kress A, Saurer M, **Büntgen U**, Treydte K, Bugmann H, Siegwolf R (2009) Summer temperature dependency of larch budmoth outbreaks revealed by Alpine tree-ring isotope chronologies. *Oecologia* 160: 353-365
- 38 Kress A, Saurer M, **Büntgen U**, Treydte K, Esper J, Siegwolf R (2009) High sensitivity of an Alpine larch isotope tree-ring series to temperature, precipitation, sunshine duration and cloudiness. In: Young G, McCarroll D (Eds.) Millennium Milestone Meeting 3, *Proceedings Volume, Mallorca, Spain*, 3-5 March 2009: 68-69

37 **Büntgen U**, Barais Valle K, Frank DC, Bouriaud O, Esper J (2008) Climatic drivers of beech growth in the Vosges and Jura Mts. *TRACE* 6: 37-44

36 **Büntgen U**, Esper J, Frank DC (2008) How do trees react to climate change? – Results from dendroclimatic research. In: Dujesiefken D, Kockerbeck P (eds) *Yearbook of Arboriculture*. 12: 26-39

35 **Büntgen U**, Frank DC, Brazdil R, Esper J (2008) Three centuries of Central European drought swings. In: Young G, McCarroll D (Eds.) European climate of the past millennium, *Proceedings Volume, Calla Millor, Spain*, 13-15 March 2008: 144-145

34(15) **Büntgen U**, Frank DC, Grudd H, Esper J (2008) Long-term summer temperature variations in the Pyrenees. *Climate Dynamics* 31: 615-631

33(14) **Büntgen U**, Frank DC, Wilson R, Carrer M, Urbinati C, Esper J (2008) Testing for tree-ring divergence in the European Alps. *Global Change Biology* 14: 2443-2453

32 **Büntgen U**, Frank DC, Wilson R, Esper J (2008) A test for tree-ring divergence in the European Alps. In: Young G, McCarroll D (Eds.) European climate of the past millennium, *Proceedings Volume, Calla Millor, Spain*, 13-15 March 2008: 132-133

31 Esper J, Niederer R, Luterbacher J, **Büntgen U**, Frank DC (2008) Calibration trails using very long instrumental and proxy data. *TRACE* 6: 45-50

30 Frank D, **Büntgen U**, Esper J, Battipaglia G, Carrer M, Nicolussi K, Pichler T, Urbinati, C (2008) Wavelength-dependent combination of tree-ring data from the European Alps. In: Young G, McCarroll D (Eds.) European climate of the past millennium, *Proceedings Volume, Calla Millor, Spain*, 13-15 March 2008: 138-139

29 Frank D, Bouriaud O, Wilson R, Battipaglia G, **Büntgen U**, Fonti P, Treydte K, Trouet V, Esper J (2008) A challenge for spatially explicit reconstructions: the climate response of trees is a function of climate. *TRACE* 6: 31-36

28(13) Schaub M, **Büntgen U**, Kaiser KF, Kromer B, Talamo S, Andersen KK, Rasmussen SO (2008) Lateglacial environmental variability in Swiss tree rings. *Quaternary Science Reviews* 27: 29-41

27(12) Schaub M, Kaiser KF, Frank DC, **Büntgen U**, Kromer B, Talamo S (2008) Environmental change during the Allerød and Younger Dryas reconstructed from Swiss tree-ring data. *Boreas* 37: 74-86

2007

26 **Büntgen U**, Frank DC, Verstege A, Nievergelt D, Esper J (2007) Climatic response of multiple tree-ring parameters from the Spanish Central Pyrenees. *TRACE* 5: 60-72

25(11) **Büntgen U**, Frank DC, Kaczka RJ, Verstege A, Zwijacz-Kozica T, Esper J (2007) Growth/climate response of a multi-species tree-ring network in the Western Carpathian Tatra Mountains, Poland and Slovakia. *Tree Physiology* 27: 689-702

24 Esper J, **Büntgen U**, Frank DC, Nicolussi K (2007) Updating the Tyrol tree-ring dataset. *TRACE* 5: 80-84

23(10) Esper J, **Büntgen U**, Frank DC, Nievergelt D, Liebhold A (2007) 1200 years of regular outbreaks in alpine insects. *Proceedings of the Royal Society B* 274: 671-679

22(9) Esper J, Frank DC, **Büntgen U**, Verstege A, Luterbacher J, Xoplaki E (2007) Long-term drought severity variations in Morocco. *Geophysical Research Letters* 34: doi, 10.1029/2007GL030844

21(8) Esper J, Frank DC, Wilson RSJ, **Büntgen U**, Treydte K (2007) Uniform growth trends among central Asian low- and high-elevation juniper tree sites. *Trees Structure and Function* 21: 141-150

20(7) Frank DC, **Büntgen U**, Böhm R, Maugeri M, Esper J (2007) Warmer early instrumental measurements versus colder reconstructed temperatures: Shooting at a moving target. *Quaternary Science Reviews* 26: 3298-3310

19 Kaczka RJ, **Büntgen U** (2007) Spatial autocorrelation and growth/climate response of a high elevation spruce network along the Carpathian arc. *TRACE* 5: 103-112

18(6) Wilson RJS, D'Arrigo R, Buckley B, **Büntgen U**, Esper J, Frank D, Luckman B, Payette S, Vose R, Youngblut D (2007) A matter of divergence: Tracking recent warming at hemispheric scales using tree-ring data. *Journal of Geophysical Research* 112: doi, 10.1029/2006JD008318

2006

17 **Büntgen U** (2006) 1250 Jahre Alpine Klimageschichte. In: Bellwald I (ed) *Familienchronik der Gemeinde Kippel und Geschlechter, Geschichte und Siedlungen des Lötschental*. 1085 pp

16 **Büntgen U** (2006) Long-term European climate reconstructions from high-elevation tree-rings. PhD thesis, University Bern 175 pp

15(5) **Büntgen U**, Bellwald I, Kalbermatten H, Schmidhalter M, Freund H, Frank DC, Bellwald W, Neuwirth B, Nüsser M, Esper J (2006) 700 years of settlement and building history in the Lötschental/Switzerland. *Erdkunde* 60/2: 96-112

14 **Büntgen U**, Frank DC, Böhm R, Esper J (2006) Effect of uncertainty in instrumental data on reconstructed temperature amplitude in the European Alps. In: Heinrich I (ed) *TRACE* 4: 38-45

13(4) **Büntgen U**, Frank DC, Nievergelt D, Esper J (2006) Summer temperature variations in the European Alps, AD 755-2004. *Journal of Climate* 19/2: 5606-5623

12(3) **Büntgen U**, Frank DC, Schmidhalter M, Neuwirth B, Seifert M, Esper J (2006) Growth/climate response shift in a long subalpine spruce chronology. *Trees Structure and Function* 20: 99-110

11 Esper J, **Büntgen U**, Frank DC, Nievergelt D, Treydte K, Verstege A (2006) Multiple tree-ring parameters from Atlas cedar (Morocco) and their climatic signal. In: Heinrich I (ed) *TRACE* 4: 46-55

10(2) Raible CC, Casty C, Luterbacher J, Pauling A, Esper J, Frank DC, **Büntgen U**, Roesch AC, Tschuck P, Wild M, Vidale PL, Schär C, Wanner H (2006) Climate variability - observations, reconstructions, and model simulations for the Atlantic-European and Alpine region from 1500-2100 AD. *Climatic Change* doi: 10.1007/10584-006-9061-2

2005

9(1) **Büntgen U**, Esper J, Frank DC, Nicolussi K, Schmidhalter M (2005) A 1052-year tree-ring proxy for Alpine summer temperatures. *Climate Dynamics* 25: 141-153

8 **Büntgen U**, Esper J, Frank DC, Nicolussi K, Schmidhalter M, Seifert M (2005) The effect of power transformation on RCS – case study from 3 millennial-length alpine chronologies. In: Gärtner H, Esper J, Schleser G (eds) *TRACE* 3: 141-149

7 Esper J, Frank DC, **Büntgen U**, Treydte K (2005) Jahrringe - Von den Alpen zur Nordhemisphäre. In: NFS Klima (eds) Boxenstopp. Tagungsband (Bern, May 18, 2005) 47-50

2004

6 **Büntgen U**, Esper J, Schmidhalter M, Frank DC, Treydte K, Neuwirth B, Winiger M (2004) Using recent and historical larch wood to build a 1300-year Valais-chronology. In: Gärtner H, Esper J, Schleser G (eds) *TRACE* 2: 85-92

5 Esper J, Treydte K, Frank DC, Gärtner H, **Büntgen U** (2004) Temperaturvariationen und Jahrringe. *Schweizerische Zeitschrift für Forstwesen* 155,6: 213-221

4 Frank DC, Esper J, **Büntgen U**, Treydte K (2004) The first principal component of a high elevation ring-width network from the western and central Alps. In: Gärtner H, Esper J, Schleser G (eds) *TRACE* 2: 54-57

3 Treydte K, Welscher C, Schleser GH, Helle G, Esper J, Winiger M, Frank DC, **Büntgen U** (2004) The climatic signal in oxygen isotopes of junipers at the lower timberline in the Karakorum, Pakistan. In: Gärtner H, Esper J, Schleser G (eds) *TRACE* 2: 100-106

2003

2 **Büntgen U** (2003) Dendroklimatologische Analysen einer 1000-jährigen Lärchenchronologie aus rezenten und verbauten Hölzern für das Lötschental/Schweiz. Diplomarbeit, Universität Bonn 95pp

1 **Büntgen U**, Frank DC, Esper J (2003) A detailed view on instrumental temperature data from Northern Eurasia. In: Gärtner H, Esper J, Schleser G (eds) *TRACE* 1: 28-35

Teaching

22.09.16 Masaryk University, Brno, Czech Republic: Western Mediterranean climate variability since medieval times (IZ048 Progress in Physical Geography)

21.09.16 Masaryk University, Brno, Czech Republic: A tree-ring perspective on environmental systems analysis (IZ048 Progress in Physical Geography)

11-14.07.16 University of Bern, Switzerland: Methods of Climate Reconstruction (03709-FS2014-0) (together with J Luterbacher)

22.09.15 University of Mainz, Germany (Lötschental, Valais, Switzerland): Mesmethoden im Gelände – Beispiel Lötschental (together with Jan Esper)

15-17.09.15 Princeton University, New Jersey, USA: Paleoclimate-Dendroclimatology Workshop for Pre-Modernists (together with Jürg Luterbacher)

26.08.15 FORESCALE NZF Summer School, Fafleralp, Lötschental, Switzerland: Dendroecological and Geographical Excursion

07-11.06.15 InterDrought Summer School, Mikulov, Czech Republic: Causes and concurrences of Eurasia's unprecedented 6th century summer cooling

01.05.15 Schweizer Jugend Forscht, Nationaler Wettbewerb 2015, Davos, Switzerland: Das Alter und Wachstum von *Sequoiadendron Giganteum* (Riesenmammutbäume) von Marc Buchs

02-06.02.15 University of Bern, OCCR, Switzerland: Dendrochronology – Tree-ring research at the interface of archaeology, climatology and ecology (410251-FS2015-0)

20.01.15 Siberian Federal University and V.N. Sukachev Institute of Forest SB RAS, Krasnoyarsk, Russia: Frontiers in Tree-Ring Research

21-24.07.14 University of Bern, Switzerland: Methods of Climate Reconstruction (03709-FS2014-0) (together with J Luterbacher and D Frank)

01-04.07.14 InterDrought SummerSchool, Mikulov, Czech Republic: Dendroecological contributions to modern drought research

23.01.14 Volkshochschule Region Brugg, Schweiz: Das Klima der letzten 2500 Jahre

16.01.14 Volkshochschule Region Brugg, Schweiz: Jahrringe als Umweltarchiv

31.10.13 University of Lincoln, Nebraska, USA: Using tree rings in paleo-environmental research

15.03.13 University of Zurich, Switzerland: Dendrochronologie – Jahrringe als Archiv

07.11.12 Masaryk University, Brno, Czech Republic: Tree-rings at the interface of archaeology, climatology and ecology

06.11.12 Mendel University, Brno, Czech Republic: Tree-rings at the interface of archaeology, climatology and ecology

11.10.12 University of Freiburg, Germany: On the effect of climate variability on fungi productivity and phenology

09-13.04.12 Bern, Institute of Geography at the University of Bern: Methods of climate reconstructions (together with Luterbacher J and Frank DC)

26-30.03.12 Brno, Czech Republic, Masaryk University: 1) From the cell to the Holocene – the role of tree rings in palaeoclimatology, 2) The importance of time-series analyses in physical geography

15.11.11 Vienna, University of Vienna, Ringvorlesung: Jahrringforschung an der Schnittstelle zwischen Klimatologie, Archäologie und Ökologie

11-14.07.11 St. Petersburg, Russia, Hydro-Meteorological State University: Summer-School on Climate Change

17.06.11 Giessen, Germany, University of Giessen: (Field excursion and research seminar): From oaks to droughts

01.10-19.12.10 Madrid, Spain, University of Madrid: Tree rings and climate

27-28.05.10 Giessen, Germany, University of Giessen (Field excursion, laboratory work and research seminar): From oaks to droughts

09.11.09 Campulung, Romania, Romanian Forest Institute: European Climate Variability – Past, Present and Future

07.09.09 Vallais, Switzerland: International Dendroecological Field-week

02.04.09 Brno, Czech Republic, Masaryk University: Reconstructing climate during the past millennium

31.03.09 Brno, Czech Republic, Masaryk University: Tree-rings and climate – a European perspective

09.03.09 Winterthur, Switzerland, IAM – Institut für angewandte Medienwissenschaft: Tempowechsel innerhalb der Klima-Debatte – Unterschiedliche Geschwindigkeiten wissenschaftlicher Erkenntnisgewinnung, medialer Inszenierung und politischem Aktionismus

14.01.09 Oslo, Norway, Centre for Ecological and Evolutionary Synthesis – CEES Extra Seminar: Climatic triggers of plague dynamics over the past millennium

03-10.11.08 Urumqi, China, Institute of Desert Meteorology IDM: Frontiers in tree-ring research, Large-scale approaches, Standardization and chronology development, Methodological issues related to MXD and TRW

02.11.08 Beijing, China, Institute of Meteorology; Chinese Academy of Science: Tree-rings and climate – potential and limitations

15-20.09.08 Vallais, Switzerland: International Dendroecological Field-week

27.03.08 Gregynog Hall, University of Wales, *Arctica islandica* workshop: Shell detrending

16-22.09.07 Lötschental, Switzerland: International Dendroecological Field-week

01.09.05 Grindelwald, Switzerland, 4th international NCCR-Climate summer school: Alpine tree-rings and climate

28.01.05 Basel, Switzerland, Department of Botany, Dendroecology: Alpine tree-rings and climate

04-09.10.04 Bonn, Germany, Department of Geography: Die Objektivität der Wissenschaft: Beispiele aus der aktuellen Klima-Debatte

Talks

14.12.2016 Farewell Lecture within our Birmensdorfer Tree-Ring Lectures, WSL: A personal perspective on 14-years of tree-ring research at WSL

17.11.16 FocusTerra – Vortrag zur Sonderausstellung "Tambora und das Jahr ohne Sommer", ETH Zurich: Warum Bäume und Vulkanausbrüche für die Klimaforschung so wichtig sind

06.09.16 N-Trend workshop, Aviemore, Scotland: Western Mediterranean climate variability since medieval times and new insights from the COSMIC project

09.05.16 Burgfestspiele Bad Vilbel, Germany: Das Klima im 14. Jahrhundert und seine Auswirkungen auf den Gang der Geschichte

27-29.04.16 PAGES initiative, Icelandic Forest Research Institute Mógilsá, Iceland: Using Arctic driftwood at the interface of marine and terrestrial (paleo-) environmental research

23-25.03.16 PAGES EuroMed 2k meeting at Hoeri, Germany: Consolidation, finalization and publication of the EuroMed2k database

16.03.16 Verband der Angehörigen des Koordinierten Wetterdienstes (VAKW), Dübendorf, Switzerland: Jahrringe als Klima- und Umweltarchiv

25.11.15 Invited keynote at the FORESTERRA FINAL CONFERENCE, Lisbon, Portugal: The impact of climate change on forest ecosystems

13.11.15 Invited keynote at WSL/SLF internal PhD-course "Data Science und Advanced Statistics": Successful publishing

20.05.15 Invited keynote lecture at TRACE, Seville, Spain: Frontiers in tree-ring research

06.05.15 Bolin Centre Lecture, Department of Geography, University of Stockholm, Sweden: Frontiers in tree-ring research

28.04.15 W3 Nachfolge Prof. Spiecker, IWW Freiburg, Germany: Frontiers in tree-ring research

27.04.15 W3 Nachfolge Prof. Spiecker, IWW Freiburg, Germany: Waldwachstumskundliche Analysen von Dauerversuchsflächen

19.02.15 Famines during the 'Little Ice Age' (1300-1800). Socio-natural Entanglements in Premodern Societies. Bielefeld, Germany: A tree-ring perspective on 'Little Ice Age' summer temperature variability

18.02.15 COST Action FP1203. European Non-Wood Forest Products (NWFPs) Network. 3rd Workshop and 4th Management Committee Meeting. Zagreb, Croatia: A (dendro)climatological perspective on fungal ecology

04.12.14 The coldest decade of the millennium? The Spörer Minimum, the climate during the 1430s, and its economic, Social and Cultural impact. University of Bern, Switzerland: A tree-ring perspective on the Spörer Minimum

01.12.14 Climate variability in Italy during the last two millennia - Italy 2k. Accademia Nazionale dei Lincei, Roma, Italy: Continental-scale temperature variability during the past two millennia – The PAGES 2k project

14.-17.09.14 PAGES EuroMed 2k meeting in Soria, Spain (PI): Compilation and evaluation of high- to low-resolution, marine and terrestrial proxy archives from the North Atlantic/EU sector that cover several centuries to millennia

26.08.14 Auditorium der Academia Engiadina, Samedan, Switzerland: Jahrringforschung oberhalb der Baumgrenze oder: was Dendrochronologen und Steinböcke verbindet

21.07.14 AK-Hochgebirge, Lötschental Exkursion, Switzerland: Das ‚wilde‘ Lötschental – museales Landschaftsartefakt oder moderner Lebensraum

13.05.2014 Heidelberger Geographische Gesellschaft, HHG, Heidelberg, Germany: Wenn Bäume Geschichte machen – Jahrringe als Umweltarchiv

15.04.14 ETH-Rat Dialog, Zurich, Switzerland: Late glacial tree-ring research

14.02.14 ClimFun and Micosylva+ meeting in Soria, Spain: Linking mushroom phenology, productivity and diversity to tree-ring and climate variability in Pinar Grande

28.01.14 Micosylva+ Annual meeting in Catalonia, Spain: Breaking new ground at the interface of dendroecology and mycology

08.11.13 Oeschger Centre for Climate Change Research, WP1 and WP2 meeting, Bern, Switzerland: Tree-ring amplification of the early-19th century cooling

04.11.13 LDEO, Columbia University, NY, USA: Frontiers in tree-ring research at the interface of archaeology, climatology and ecology

30.10.13 University of Lincoln, Nebraska, USA: Frontiers in tree-ring research at the interface of archaeology, climatology and ecology

16.10.13 Geocycles Workshop, Mainz, Germany: Keynote - Linking climate variability with human history: a tree-ring perspective

03.09.13 ClimTree 2013 Conference, Zurich, Switzerland: Frontiers in dendroclimatology and -ecology

19.06.13 InterDrought SummerSchool, Telc, Czech Republic: Dendroecological applications in modern drought research

22.01.13 WSL, Birmensdorf, Switzerland, Dendro-Seminar: Annual increments from above the Alpine treeline

10.01.13 Oslo, Norway, Centre for Ecological and Evolutionary Synthesis – CEES Extra Seminar: European climate variability controls Alpine ibex vitality

15.11.12 Charles University, Prague, Czech Republic: Tree-rings at the interface of archaeology, climatology and ecology

21.06.12 Norwich, University of East Anglia, CRU: Potential and limitations of randomly updating German oaks

14.06.12 Mainz, University of Mainz, Lecture-Series: Jahrringe an der Schnittstelle zwischen Archäologie, Klimatologie und Ökologie

21.05.12 Hamburg, PAGES 2K-meeting: Tree ring-based temperature reconstructions for Europe and the last millennium

24.01.12 Bern, Swiss National Science Foundation: European Climate Variability of the Late to Mid Holocene - ECHO

14.12.11 Lausanne, EPFL: Tree rings in archaeology, climatology and ecology

06.12.11 Berlin, Humboldt University Berlin: Möglichkeiten der Jahrringforschung an der Schnittstelle von Paläoklimatologie und -ökologie (Neubesetzung der S-Professur für Paläoklimatologie)

06.10.11 Bern, University of Bern, Habilitationsvortrag: Potential und Limitierung jahrringbasierter Klimarekonstruktionen

14.09.11 Engelberg, Switzerland, 24. International Dendroecological Fieldweek: Frontiers in Dendroecology

07.09.11 Samedan, Engadiner Naturforschende Gesellschaft – SESN: Wenn Bäume Geschichte machen – Jahrringe als Klimaarchiv

06.07.11 Bayreuth, University of Bayreuth, Department of Geography: Beiträge der Jahrringforschung zur Klimatologie/Ökologie in der Physischen Geographie (Wiederbesetzung der Professur für Klimatologie)

10.05.11 Ettswil, Schloss Wyher, Generalversammlung Auto-Schweiz: Was können uns Jahrringe über das Klima sagen?

09.05.11 Bern, Institute for Plant Sciences, Research Colloquium: Frontiers in Dendroclimatology and -ecology

18.04.11 London, UK, Clyde & Co – International Law Firm Seminar Lecture: What tree rings can tell us about climate change?

08.02.11 Amsterdam, Netherlands, University of Amsterdam and Faculty of Earth & Life Sciences: Tree-ring sampling along the Yenisei

04.02.11 Erlangen, Germany, AK-Hochgebirge, Annual meeting: 2500 years of European climate variability and human susceptibility

18.01.11 Oslo, Norway, CEES: Frontiers in dendroclimatology and -ecology

16.12.10 Zaragoza, Spain, ARAID-Instituto Pirenaico de Ecología (CSIC): Frontiers in dendroclimatology and -ecology

19.11.10 Hamburg, Germany, University of Hamburg, Tag der Holzwirtschaft: Neue Wege in der Dendroklimatologie

16.09.10 Zurich, Switzerland, European Meteorological Society: European climate variability and human susceptibility over the past 2500 years

14.06.10 Rovaniemi, Finland, World Dendro: Scandinavian temperatures offset global warming (presented by David Frank)

24.04.10 Freiburg, Germany, International Conference TRACE: Complex climate response of Carpathian Scots pine cliff sites

03.12.09 Innsbruck, Austria, University of Innsbruck: Dendrochronology – *quo vadis*

19.11.09 Padova, Italy, University of Padova: Advances in European tree-ring research - from annual insect outbreaks to millennial climate variability

27.10.09 Mallorca, Spain, EuroDendro: Hydro-climatic drivers of Medieval Black Death

28.09.09 Toulouse, France, European Meteorological Society: Climatic drivers of *Yersinia pestis* – a holistic perspective on Medieval Black Death

10.09.09 Brno, Czech Republic, Masaryk University: Climate variability and its human dimension in Central Europe during the 18th century

05.09.09 Oslo, Norway, CEES in the Norwegian Academy of Science and Letters: The Black Death and climate

31.01.09 Marburg, Germany, Hessisches Landesamt für geschichtliche Landeskunde: Klimavariabilität und Pestausbrüche während der letzten 1000 Jahre

24.01.09 Heidelberg, Germany, South Asia Institute, Department of Geography, Germany, AK-Hochgebirge annual meeting: Diverse growth trends and climate responses of high-elevation Mediterranean tree-ring width and density

12.09.08 Brig, Switzerland, Institute for Alpine Research: Alpine summer temperatures of the past millennium

23.06.08 Madrid, Spain, University of Madrid: European climate and tree-ring variability of the past millennium

28.04.08 Zakopane, Poland, International Conference TRACE: Three centuries of Central European drought dynamics

28.04.08 Zakopane, Poland, International Conference TRACE – Podium Discussion: On the Divergence Problem in tree-ring research

23.04.08 Lötschental, Switzerland, Bauernhausforschung-Alpen: 1000 years of settlement and building history, insect outbreaks, and temperature variability in the Lötschental

15.04.08 Augsburg, Germany, Deutsche Baumpflegtage: How do trees react to climate change

14.03.08 Mallorca, Spain, EU meeting MILLENNIUM: Proxy data calibration and verification

19.01.08 Passau, Germany, AK-Hochgebirge annual meeting: Testing for tree-ring divergence in the European Alps

03.11.07 Freiburg, Germany, AK-Klima annual meeting: Two tests for tree-ring divergence in the European Alps

28.09.07 Stockholm, Sweden, EU meeting MILLENNIUM: A test for tree-ring divergence in the European Alps

16-22.09.07 Lötschental, Switzerland: International Dendroecological Field-week

04.05.07 Riga, Latvia, International Conference TRACE: Eight centuries of Pyrenees summer temperatures from tree-ring density

19.04.07 Oslo, Norway, Center for Ecological and Evolutionary Synthesis CEES, Dep. of Biology, University of Oslo: Climatic and insect controls on inter-annual to multi-centennial growth of the European larch (*Larix decidua* Mill.)

07.02.07 Mallorca, Spain, EU meeting MILLENNIUM: Long-term European climate variations from high-elevation tree-ring density

27.01.07 Marburg, Germany, AK-Hochgebirge annual meeting: Zweierlei Grenzen in der Palaeoklimatologie: Fallbeispiel Jahrringforschung

21.04.06 Brussels, Belgium, International Conference TRACE: Tree growth and climate in the Tatra Mountains

14.02.06 Mallorca, Spain, EU meeting MILLENNIUM: Tree-rings and uncertainties

06.10.05 Trier, Germany, 55. Deutscher Geographentag: Jahrringe und Klima der Alpen

22.04.05 Fribourg, Switzerland, International Conference TRACE: Alpine temperature variations, 755-2004

07.04.05 Bologna, Italy, EU meeting ALP-IMP: Long-term Alpine temperature reconstructions

22-25.09.04 Luzern, Switzerland, ESF-HOLIVAR workshop: A 1052-year alpine tree-ring proxy captured warmest summer temperatures in the last decade

28-29.05.04 Kippel, Switzerland, Schweizerische Bauernhausforschung: Tree-rings & climate

23.04.04 Birmensdorf, Switzerland, International Conference TRACE: A Millennial-long Alpine summer temperature reconstruction derived from tree rings

29.01.04 Kippel, Switzerland, Schweizerische Bauernhausforschung/AG Wallis: Dendro-klimatologische Analyse einer 1300-jährigen Lärchenchronologie aus rezenten und verbauten Hölzern für das Wallis/Schweiz

Fund raising and project managing

aDND: Evaluating the potential of the subfossil “Binz” pines for ancient DNA analyses (WSL internal call 2014; CHF 53'000) – Co-PI

AIVEC: Linking Alpine Ibex Vitality to European Climate Variability (WSL internal call 2013; CHF 79'000) – PI (together with Kurt Bollmann, Josef Senn, Simon Egli and Achilleas Psomas)

ALP-IMP: Multi-centennial climate variability in the Alps based on instrumental data, model simulations, and proxy data (European Commission, Grant # EVK2-CT-2002-00148) – *involved*

BINZ: Improving Late Glacial European tree-ring chronologies for accurate climate archive dating - Consolidation and extension of the Swiss-German pine chronology back to 14 000 BP (Swiss National Science Foundation + DFG, Grant # 20021L_157187 / 1; CHF 477'277 + Euro 300'000) – *Co-PI (together with Wacker L)*

COSMIC: Extraterrestrial evaluation of global-scale tree-ring dating in the first millennium CE (WSL internal call 2014; CHF 53'777) – *PI*

DAAD: Siberian Driftwood (DAAD personal grant; Euro 1'000) – *PI*

DITREC: Disentangling Truffle Ecology (WSL internal call 2011; CHF 46'000) – *PI (together with Egli S)*

Euro-FC: Linking European Fungal Ecology with Climate Variability (Swiss National Science Foundation, Grant # 205321_169613; CHF 159'000; 2016-2018) – *PI*

EUROTRANS: European multi-centennial climatic variability and extremes along a maritime-continental tree-ring transect (Swiss National Science Foundation, Grant # 200021-105663) – *co-inventor and main employee*

EVA MAYR-STIHL STIFTUNG: Grönländisches Treibholz als Umweltarchiv, 2010 – Rekonstruktion nacheiszeitlicher Klimaschwankung, Ozeanströmung und Landhebung (Eva Mayr-Stihl-Stiftung; Euro 10'000) – *PI*

EVA MAYR-STIHL STIFTUNG: Arctic driftwood Project 2011, extension of the former Greenland project (Eva Mayr-Stihl-Stiftung; Euro 18'000) – *PI*

EVA MAYR-STIHL STIFTUNG: Arctic driftwood Project 2012, extension of the activities from 2010 and 2011 (Eva Mayr-Stihl-Stiftung; Euro 20'000) – *PI*

EVA MAYR-STIHL STIFTUNG: Arctic driftwood Project 2013, extension of the activities from 2010-2012 (Eva Mayr-Stihl-Stiftung; Euro 54'000) – *PI*

EXTRACT: Extended thousand-year reconstructions of Alpine climate from tree-rings (Swiss National Science Foundation, NCCR-Climatic) – *involved*

GenTree: Optimising the management and sustainable use of forest genetic resources in Europe (*European Commission – Horizon 2020; Euro 520'000*) – *Co-PI 2016*

IBEX: Unraveling the effects of hunting and climate on the Swiss Alpine ibex population (Ernst Göhner Stiftung; CHF 50'000) – *PI (together with Kurt Bollmann) 2016*

INTERDROUGHT: Building up a multidisciplinary scientific team focused on drought; 35 month from August 2012 to June 2016 (European Commission through Czech Ministry of Education, Youth and Sports; Euro 1'280'000) – *Co-PI*

LÖTSCHENTAL-TRANSECT: (Swiss National Science Foundation) – *co-inventor*

MADRID: Tree rings, model simulations and climate variations on the Iberian Peninsula (UNIVERSIDAD COMPLUTENSE; Euro 7'2000) – *PI*

MEDCLIVAR: 500 years of tree ring-based drought reconstructions for the Central Iberian Peninsula – *main inventor*

MILLENNIA: Millennia-long Northern Hemisphere climate reconstructions from tree rings (Swiss National Science Foundation, Grant # 2100-066628) – *involved*

MILLENNIUM: (European Commission, Grant # 017008-2; Euro 480'000) – *co-inventor and main employee*

PAGES: Compilation and evaluation of marine and terrestrial archives for Europe and the last 2k years (EuroMed2k), September 14-17, 2014 Soria, Spain (US\$ 10'000) – *PI*

PAGES: Consolidation, finalization and publication of the EuroMed2k database (EuroMed2k), March 23-25, 2016 WSL, Switzerland (US\$ 7'500) – *PI*

PAGES: Arctic driftwood at the interface of marine and terrestrial (paleo-) environmental research, April 27-30, 2016 Mógilsá, Iceland (US\$ 4'000) – *PI*

PAGES: Overcoming reductionism when linking climate variability with human history – a cross-disciplinary approach in the Altai Mountains, Autumn 2016 Krasnoyarsk, Russia (US\$ 10'000) – *PI together with Alex Kirilyanov*

PALEO: 2000 years of **PALE**oclimatology and **E**cology from **O**ak stable isotopes in the Czech Republic (Czech Science Foundation Grant # 17-22102S; CZK 10'000'000) – *PI*

TRÜFFEL: Natürliche Verbreitung und nachhaltige Nutzung von Burgunder Trüffeln (*Tuber aestivum*) in der Schweiz. (Ernst Göhner Stiftung; CHF 50'000) – *PI (together with Simon Egli)*

UPDATE: Updating the historical record of European oak tree-ring data (Columbia University, LDEO, NY; Dollar 4'500) – *PI*

VITA: Varves, ice cores and tree rings: archives with annual resolution (Swiss National Science Foundation, NCCR-Climate) – *involved*

Review & editorial work

Annals of Forest Science; <http://www.afs-journal.org/>

Bergen Research Foundation (BSF); http://www.uib.no/bfs/index_eng.htm

Biology Letters; <http://rsbl.royalsocietypublishing.org/>

Canadian Journal of Forest Research; <http://pubs.nrc-cnrc.gc.ca/rp-ps/journalDetail.jsp?jcode=cjfr&lang=eng>

Chemical Geology; <http://ees.elsevier.com/chemge/default.asp>

Climate Dynamics; <http://www.springer.com/earth+sciences/geophysics/journal/382>

Climate of the Past; <http://www.climate-of-the-past.net/>

Climate Research; <http://www.int-res.com/journals/cr/>

Climatic Change; <http://www.springer.com/earth+sciences+and+geography/meteorology+%26+climatology/journal>
 Czech Science Foundation; <http://www.gacr.cz/>
Dendrochronologia; <http://shop.elsevier.de/dendro>
 DFG; <http://www.dfg.de/index.jsp>
 DFG Exzellenzcluster CLiSAP; <http://www.dfg.de/>
Ecography; <http://www.wiley.com/bw/journal.asp?ref=0906-7590&site=1>
Ecological Modeling; http://www.elsevier.com/wps/find/journaldescription.cws_home/503306/description#description
Geophysical Research Letters; <http://www.agu.org/journals/gl/>
Global Change Biology; <http://www.wiley.com/bw/journal.asp?ref=1354-1013&site=1>
Global and Planetary Change; http://www.elsevier.com/wps/find/journaldescription.cws_home/503335/description
IAWA Journal; <http://bio.kuleuven.be/sys/iawa/>
International Journal of Biometeorology; <http://www.springerlink.com/content/100429/>
International Journal of Climatology; <http://www3.interscience.wiley.com/journal/4735/home>
Israel Journal of Ecology and Evolution; <http://www.israelsciencejournals.com/eco.htm>
Journal of Atmos. & Solar-Terrestrial Physics; http://www.elsevier.com/wps/find/journaldescription.cws_home
Journal of Biogeography; <http://www.wiley.com/bw/journal.asp?ref=0305-0270>
Journal of Animal Ecology; <http://www.journalofanimalecology.org/view/0/index.html>
Journal of Geophysical Research; <http://www.agu.org/journals/jd/>
Journal of Geophysical Research-B; <http://www.agu.org/journals/jg/>
New Phytologist; <http://www.wiley.com/bw/journal.asp?ref=0028-646X&site=1>
 NOAA Climate Program; <http://www.climate.noaa.gov/>
Oecologia; <http://www.springer.com/life+sci/ecology/journal/442>
Palaeogeography, Palaeoclimatology, Palaeoecology; <http://www.sciencedirect.com/science/journal/00310182>
 PAGES; <http://www.pages.unibe.ch/>
Plant Ecology; <http://www.springer.com/life+sci/plant+sciences/journal/11258>
Polish Journal of Environmental Studies; <http://www.pjoes.com/>
Proceedings of the National Academy of Sciences USA; <http://www.pnas.org/>
Quaternary Research; http://www.elsevier.com/wps/find/journaldescription.cws_home/622937/description
Quaternary Science Reviews; http://www.elsevier.com/wps/find/journaldescription.cws_home/636/description
Silva Fennica; www.metla.fi/silvafennica
 Swiss National Science Foundation; <http://www.snf.ch/E/Pages/default.aspx>
The Holocene; <http://hol.sagepub.com/>
Theoretical & Applied Climatology; <http://www.springer.com/springerwiennewyork/geosciences/journal/704>
Tree-Ring Research; <http://www.treeringsociety.org/journal.html>
Trees, Structure and Function; <http://www.springer.com/life+sci/forestry/journal/468>
Tropical Ecology; <http://journals.cambridge.org/action/displayJournal?jid=TRO>

Research foci

Alpine ibex horn growth: Disentangling biotic and abiotic drivers of annual Caprinae horn growth rates

Arctic driftwood: Wood anatomy, Ocean Circulation Patterns, Provenancing, aDNA sequencing

Climate variability: MWP, LIA, Recent Warming, Color-preservation, Forcing agents

Dendrochronology: De-trending, Composite chronologies, Maximum Latewood Density

Early instrumental measurements: Homogenization, Urban-Heat-Island, High-elevation observations

Mountain systems: European Alps, Carpathian arc, Pyrenees, Caucasus, Scandinavia and Tien Shan

Mushroom phenology and productivity: Intra- and inter-annual extremes and trends in fungi fruiting

Landscape dynamics: Change and persistence in Alpine environment, settlement and building history

Palaeoclimatology: Long-term reconstructions, regional- to large-scale networks, frequency domains
Plague dynamics: Climatic and environmental triggers of plague outbreaks in Central Asia and Europe
Population ecology: Long-term insect outbreak dispersal and dynamics, fungi fruiting and phenology
Settlement activity: Construction timber, felling dates, dendroarchaeology, human history, population migration
Truffle ecology: Fruit body formation, daily growth rings, climatic drivers, ectomycorrhizal ecology, host plant
Vegetation dynamics: Intra-/interannual growth responses, treeline and ecotone dynamics, shrubs and herbs

Supervision

Pascal Affolter (07) Aufbau und Klimatische Analyse eines tieflagen Netzwerk, Wallis. Master thesis, Institute of Geography, University of Bern, Switzerland (Master)

Lea Regina Moser (08) Interannuelle Wachstumsanalyse entlang eines Höhentransekts im Lötschental, Wallis. Master thesis, Institute of Geography, University of Bern, Switzerland (Master)

Thomas Neuenschwander (08) Eine 1000-jährige Temperaturrekonstruktion für die Französischen Seealpen. Master thesis, Institute of Geography, University of Bern, Switzerland (Master)

George Sakhuari (08) Trends in Georgian forest growth productivity and climate sensitivity during the 20th century. PhD thesis, Institute of Biology, University of Tbilisi, Georgia (PhD)

Benjamin Herzog (09) Tempowechsel innerhalb der Klima-Debatte – Unterschiedliche Geschwindigkeiten wissenschaftlicher Erkenntnisgewinnung, medialer Inszenierung und politischem Aktionismus, IAM Winterthur (Bachelor)

Oliver Lutz (09) Tempowechsel innerhalb der Klima-Debatte – Unterschiedliche Geschwindigkeiten wissenschaftlicher Erkenntnisgewinnung, medialer Inszenierung und politischem Aktionismus, IAM Winterthur (Bachelor)

Laura Fernández Donado (09) Tree-rings and climate of the Iberian Peninsula, University of Madrid (Master)

Lara Läubli (10) Linking Alpine glacier dynamics to tree growth, University of Zürich (Master)

Steffen Walz (11) Extra-tropical biomass response to the unknown 1258 AD eruption, University of Würzburg (Master)

Wilhelm Tegel (11-12) Neolithic construction timber and environmental change, University of Freiburg (PhD)

Ulrich Stobbe (11-12) Truffle ecology in southwest Germany, University of Freiburg (PhD)

Janine Grossjean (11-12) Dendroklimatologisches Potential von *Juniperus thurifera* in Zentral Spanien, University of Mainz (Master)

Lena Hellmann (11-12) Wood anatomical analysis of Arctic driftwood, University of Würzburg (Master)

Felix Fischer (12) Potential and limitation of “branch dendrochronology” to date eagle nests in the Swiss Alps, University of Würzburg (Master)

Joachim Ortsiefen (12) Combining living and historical Juniper trees towards a precipitation sensitive composite chronology for Central Spain, University of Mainz (Master)

Lena Hellmann (13-16) Potential and limitation of Arctic driftwood as an environmental archive, OCCR at the University of Bern (PhD)

Simon Dippel (13) Using historical wood to develop a composite chronology in the Bavarian Alps, TU Munich (Bachelor)

Frederick Reinig (14) Potential and limitation to develop a tree ring-based summer temperature reconstruction for northeastern Siberia and the past millennium (Master)

Frederick Reinig (15-18) Potential and limitation to develop a tree ring-based summer temperature reconstruction for northeastern Siberia and the past millennium (PhD)

Marc Buchs (14-15) Swiss BrainPower: Nationaler Wettbewerb Schweizer Jugend Forscht in Davos: Das Alter und Wachstum von *Sequoiadendron Giganteum*

Valentina Vitali (15-17) White fir and Douglas fir as substitute trees for Norway spruce: comparative study on resilience and resistance along the altitudinal gradient from the Rhine Valley to the mountain zones of the Black Forest (PhD)

Jan Geyer (15) Dendroprovenancing Arctic Driftwood, University of Freiburg, Germany (Bachelor co-supervisor)

Oliver Konter (13-16) Trends and Signals in tree-ring Parameters, University of Mainz, Germany (PhD second supervisor)

Flurina Rigling (16) Swiss BrainPower: Nationaler Wettbewerb Schweizer Jugend Forscht: Trüffel (*Tuber aestivum*) mit Wachstumsringen?

Nancy Bolze (16) Re-visiting temperature-induced recruitment pulses of Greenlandic dwarf shrub communities. University of Freiburg, Germany (Master supervisor)

Bernhard Muigg (16-19) Wald und Holz im frühen Mittelalter – Dendroarchäologische Untersuchungen zu Wald- und Holznutzung in Mitteleuropa. University of Freiburg, Germany (PhD co-supervisor)

Research locations

Alps: TRW and MXD network, living and relict wood material, composite chronologies, millennial-long summer temperature reconstructions, spatiotemporal reconstructions of LBM outbreaks, settlement and building history, intra-annual growth dynamics, treeline studies, Lötschental, Southern French Alps, Valais, Engadine, Tyrol, treeline soil-temperature logger, *Larix decidua*, *Picea abies*, *Pinus cembra*, *Pinus sylvestris*, *Abies alba*

Aragon: Truffle assessment in the Teruel region, tree-ring sampling of *Juniperus thurifera*

Atlas: TRW network, living trees, millennial-long PDSI reconstruction, NAO studies, *Cedrus atlantica*

Carpathians: TRW network, living trees, summer temperature, treeline soil-temp. logger, *Larix decidua*, *Picea abies*, *Pinus cembra*, *Pinus sylvestris*

Caucasus: TRW network, living trees, growth-climate response analysis, treeline soil-temp. logger, *Pinus sylvestris*

Germany: TRW composite chronology of the last millennium, drought reconstruction, *Quercus spec.*

Greenland: sampling of driftwood, chronology development, reconstructing ocean circulation and post-glacial uplift

Guadarrama: TRW network, living trees, *Pinus sylvestris*, *Pinus nigra*, *Pinus pinaster*, *Pinus pinea*

Greenland: Arctic driftwood sampling

Moravia: TRW network, living and relict wood material, 700-year long composite chronology, *Abies alba*

Pyrenees: TRW and MXD network, living and relict wood, treeline soil-temp. logger, *Pinus uncinata*

Scandinavia: TRW and MXD network, living trees, offshore sampling, *Pinus sylvestris*

Siberia: TRW and MXD living and relict wood, shore and off-shore, driftwood and treeline dynamics

Tatra: TRW network, MXD site chronologies, living trees, summer temperature and drought reconstructions of the past ~300 years, treeline soil-temp. logger, *Larix decidua*, *Picea abies*, *Pinus cembra*, *Pinus sylvestris*, *Abies alba*

Vosges: TRW network, living trees, mixed signal, species-specific upper treeline, *Fagus sylvatica*
