

List of Publications by Dr. This Rutishauser (Last update: October 2011)

1. PEER-REVIEWED SCIENTIFIC PAPERS AND BOOK CONTRIBUTIONS

PUBLISHED, IN PRESS, ACCEPTED

Stöckli, R., **T. Rutishauser**, I. Baker, M. Liniger, S. Denning 2011: A Global Reanalysis of Vegetation Phenology, *J. Geophys. Res.* 116, G03020, doi:10.1029/2010JG001545.

Demarée, G. R., **T. Rutishauser**, 2011: «Periodical Observations» to «Anthochronology» and «Phenology» - The scientific debate between Adolphe Quetelet and Charles Morren on the origin of the word «Phenology», *Int J Biometeorology*, Special Issue Phenology 2010, 10.1007/s00484-011-0442-5.

Luterbacher J, Koenig SJ, Franke J, van der Schrier G, Zorita E, Moberg A, Jacobeit J, Della-Marta PM, Küttel M, Xoplaki E, Wheeler D, **Rutishauser T**, Stössel M, Wanner H, Brázdil R, Dobrovolný P, Camuffo D, Bertolin C, van Engelen A, Gonzalez-Rouco FJ, Wilson R, Pfister C, Limanówka D, Nordli Ø, Leijonhufvud L, Söderberg J, Allan R, Barriendos M, Glaser R, Riemann D, Hao Z, Zerefos CS 2010: Circulation dynamics and its influence on European and Mediterranean January-April climate over the past half millennium: results and insights from instrumental data, documentary evidence and coupled climate models. *Climatic Change*. doi:10.1007/s10584-009-9782-0.

Luterbacher, J., E. Xoplaki, M. Küttel, E. Zorita, F.J. González-Rouco, P.D. Jones, M. Stössel, **T. Rutishauser**, H. Wanner, J. Wibig, and R. Przybylak, 2010: Climate change in Poland in the past centuries and its relationship to European climate: evidence from reconstructions and coupled climate models, in: R. Przybylak et al. (eds.), *The Polish Climate in the European Context: An Historical Overview*, Springer, DOI 10.1007/978-90-481-3167-9_1.

Jeanneret, F. and **T. Rutishauser**, 2010: Seasonality as a core business of phenology, in : Keatley, M. and Hudson, I. (eds.): *Phenological Research: methods for environmental and climate change analysis*, pp. 63-74, Springer.

Jeanneret, F. and **T. Rutishauser**, 2010: Phenology for topoclimatological surveys and large-scale mapping, in: Keatley, M. and Hudson, I. (eds.): *Phenological Research: methods for environmental and climate change analysis*, pp. 153-169, Springer.

Peñuelas, J., **T. Rutishauser**, I. Filella, 2009: Phenology Feedback on Climate Change. *Science* 324, 887–888.

Demarée, G. and **T. Rutishauser**, 2009: Origins of the word "phenology". *Eos Transactions of the American Geophysical Union* 90, 291.

Rutishauser, T., C. Schleip, T. Sparks, Ø. Nordli, A. Menzel, H. Wanner, F. Jeanneret and J. Luterbacher, 2009: The Temperature Sensitivity of Swiss and British Plant Phenology 1753–1958, Special Issue European Plant Phenology, *Climate Research* 39, 179-190, doi: 10.3354/cr00810.

Burri, M. and **T. Rutishauser**, 2009: Johann Jakob Sprünglis Beobachtungen als Quelle

der Historischen Klimaforschung. In: Stuber, M., P. Moser, G. Gerber-Visser, C. Pfister (Eds.), *Kartoffeln, Klee und kluge Köpfe. Die Oekonomische und Gemeinnützige Gesellschaft des Kantons Bern OGG (1759-2009)*, pp. 107–110, Paul Haupt, Bern.

Rutishauser, T., J. Luterbacher, C. Defila, D. Frank, and H. Wanner, 2008: Swiss Spring Plant Phenology 2007: Extremes, a multi-century perspective and changes in temperature sensitivity. *Geophys. Res. Lett.*, 35, L05703. doi: 10.1029/2007GL032545.

Schleip, C., **T. Rutishauser**, J. Luterbacher, and A. Menze, 2008: Time series modelling and temperature impact assessment of phenological records in the last 250 years, *J. Geophys. Res. (Biogeosciences)*, 113, G04026, doi:10.1029/2007JG000646.

Stöckli, R., **T. Rutishauser**, D. Dragoni, J. O'Keefe, P. E. Thornton, M. Jolly, L. Lu, and A. S. Denning, 2008: Remote sensing data assimilation for a prognostic phenology model, *J. Geophys. Res. (Biogeosciences)*, 113, G04021, doi: 10.1029/2008JG000781.

Rutishauser, T., J. Luterbacher, F. Jeanneret, C. Pfister, and H. Wanner, 2007: A phenology-based reconstruction of interannual changes in past spring seasons, *J. Geophys. Res. (Biogeosciences)*, 112, G04016, doi:10.1029/2006JG000382.

Meier, N., **T. Rutishauser**, J. Luterbacher, and H. Wanner, 2007: Grape Harvest Dates as a proxy for Swiss April to August Temperature Reconstructions back to AD 1480. *Geophys. Res. Lett.*, 34, L20705, doi:10.1029/2007GL031381.

Luterbacher, J., M.A. Liniger, A. Menzel, N. Estrella, P.M. Della-Marta, C. Pfister, **T. Rutishauser**, and E. Xoplaki, 2007: The exceptional European warmth of Autumn 2006 and Winter 2007: Historical context, the underlying dynamics and its phenological, *Geophys. Res. Lett.*, 34, L12704, doi:10.1029/2007GL029951.

Rutishauser, T. and S. Studer 2006: Klimawandel und der Einfluss auf die Frühlingsphänologie, *Schweizerische Zeitschrift für Forstwesen*, 158 (5), 105-111.

Luterbacher, J. and 43 Coauthors including **T. Rutishauser**, 2006: Mediterranean Climate Variability Over The Last Centuries: A Review. In: *The Mediterranean Climate: an overview of the main characteristics and issues*, Ed. P. Lionello, P. Malanotte-Rizzoli, and R. Boscolo, Elsevier, 27-148.

1.A. PEER-REVIEWED SCIENTIFIC PAPERS AND BOOK ARTICLES REVISED, IN REVISION OR SUBMITTED

Rutishauser, T., J. Peñuelas, I. Filella, C. Röthlisberger, N. Meier, S. Scherrer: A landscape phenology view from multi-species plant phenological data sets, in review.

Naef-Daenzer, B., J. Luterbacher, M. Nuber, **T. Rutishauser** and W. Winkel, Climate forcing on a bird population over the past half millennium, in review.

3. BOOKS, PROCEEDINGS, CONFERENCE ABSTRACTS AND OTHER ARTICLES

Rutishauser, T. (2009): Historical Phenology in Central Europe. Seasonality and Climate During the Past 500 Years, *Geographica Bernensia*, Vol. G 82, pp. 152.

Rutishauser, T., F. Jeanneret (2009): Phänologie im Gebirge. Über den Rhythmus der Jahreszeiten im Schweizer Alpenraum, in: C. Pfister, G. Imboden (Hrsg): *Klimageschichte in den Alpen. Methoden - Probleme - Ergebnisse*, Blätter aus der Walliser Geschichte, Vol. 41, Geschichtsforschender Verein Oberwallis, Brig 2009, S. 171-187.

Rutishauser, T., J. Peñuelas, I. Filella, C. Röthlisberger (2009) Robust, ground-observed plant phenological metrics for applications in climate impact analyses at the landscape level. *Geophys. Res. Abstr.* 11, EGU2009-3168.

Stöckli, R., **T. Rutishauser**, S. Denning (2009): Phenological model-data fusion: how to bridge spatial scales? *Geophys. Res. Abstr.* 11, EGU2009-2703.

Naef-Daenzer, B., J. Luterbacher, M. Nuber, **T. Rutishauser**, W. Winkel (2009): Climate-driven fluctuation of a wild bird population over the past half millennium, *Geophys. Res. Abstr.* 11, EGU2009-1868.

Rutishauser, T., F. Jeanneret (2009): Phänologie im Gebirge. Über den Rhythmus der Jahreszeiten im Schweizer Alpenraum, in: C. Pfister, G. Imboden (Hrsg): *Klimageschichte in den Alpen. Methoden - Probleme - Ergebnisse*, Blätter aus der Walliser Geschichte, Vol. 16, Geschichtsforschenden Verein Oberwallis, Brig 2009, im Druck.

Rutishauser, T., R. Brügger, and F. Jeanneret (2008): Phänologie – Theorie und Praxis eines Biomonitorings. Skriptum zur Vorlesung Phänologie, Geographisches Institut, Universität Bern.

Luterbacher, J., E. Xoplaki, M. Küttel, C. Casty, **T. Rutishauser**, A. Pauling, and H. Wanner, 2006: Mediterranean past climate variability, *Exchanges. Newsletter of the Climate Variability and Predictability Programme (CLIVAR)*, Volume 11, 14-19.

Rutishauser, T., J. Luterbacher, H. Wanner, C. Pfister, and F. Jeanneret, 2005: Can Phenological Observations and their Statistical Modeling Describe Ecological Response to Climate Change for Switzerland Back to Preindustrial Times?. *Geophys. Res. Abstracts*, 7, 05282.

Rutishauser, T., J. Luterbacher, N. Meier, F. Jeanneret, C. Pfister, and H. Wanner 2005: The potential of documentary phenological spring observations for reconstructing the beginning of the growing season back to the 1700s. *Ann. Meteorol.*, 41, 482-485.

Rutishauser, T., J. Luterbacher, F. Jeanneret, and H. Wanner, 2004: Integrating Historical Phenological Observations into a 280-Year Long Series. In: A.J.H. van Vliet (ed), *Proceedings of the International Conference "Challenging Times. Towards an operational system for monitoring, modeling and forecasting of phenological changes and their socio-economic impact"*, Wageningen, The Netherlands, 31 March to 2 April 2003, pp 68-74.

Rutishauser, T., J. Luterbacher, and H. Wanner, 2003: A 280-Year long Series of Phenological Observations of Cherry Tree Blossoming Dates for Switzerland, *Geophysical Research Abstracts*, 5, 10883.

4. TALKS (AS PRESENTING AUTHOR)

21. 4. 2009: Plant phenological metrics for applications in climate impact analyses at the landscape level. European Geophysical Union (EGU) General Assembly, Vienna, Austria.

10. 3. 2009: Landscape Phenology: An Integrating View From Legacy Data Sets, International conference on "Scope and current limits of linking phenology and climatology, Geisenheim Research Center, Geisenheim, Germany.

20. 11. 2008: Past and present changes in seasonal variability as seen in plant phenological observations. What's coming next?, CREAM (Center for Ecological Applications and Forestry Applications) seminar, Barcelona, Spain.

7. 11. 2008: Historical observations in Switzerland – an overview. Workshop of cost Action 725 "Establishing a European Phenological Data Platform for Climatological Applications", Rome, Italy.

6. 5. 2008: Temperature Sensitivity of Swiss and British Growing Season Plant Phenology Onset Changes 1753–1958, 8th Management Committee Meeting of Cost Action 725 "Establishing a European Phenological Data Platform for Climatological Applications", Bucharest, Romania.

29. 4. 2008: Wie aussergewöhnlich ist das aktuelle Klima? Volkshochschule Niedersimmental, Spiez.

23. 1. 2008: Extremes and changes in temperature sensitivity in a phenology-based reconstruction of past spring seasons, Eidgenössische Forschungsanstalt für Wald, Schnee und Landschaft WSL, Birmensdorf

6. 12. 2007: "Historische Pflanzenphänologie – Der Einfluss des Klimas auf die Jahreszeitenvariabilität", PhD defense, University of Bern, Switzerland.

4. 11. 2007: Historische Phänologie: Aktuelle Klimaimpaktforschung mit alten Pflanzenbeobachtungen. Arbeitskreis Klima, Deutschen Geographischen Gesellschaft, Freiburg i. B., Germany.

30. 8. 2007: Plant phenological observations: Methods and results for Swiss spring and summer temperature reconstructions, Analytical workshop "Instrumental and Documentary Data in the Climate Reconstruction of the Past Millennium in Europe", "Millennium" European Union Project, Freiburg i. B., Germany.

21. 6. 2007: Globale Klimaentwicklung – Hysterie oder Facts?, Lions Club Gstaad-Saanenland, Switzerland.

- 7.-8. 6. 2007: Past, Present and Future Climate Impact on Spring and Summer Vegetation – a Phenological Approach. NCCR-Climat Young Researcher's Meeting, Murten, Switzerland.
2. 2. 2007: Historische Phänologie: Archivbeobachtungen zur Rekonstruktion vergangener Jahreszeiten. GLOBE Phänologie-Tagung, Freiburg i. B.
22. 1. 2007: Historical phenological data analysis: 2 results from Switzerland, COST-725 Working Group 3 Meeting, Freising, Germany.
22. 6. 2006: Historische Phänologie. Von Bruchstücken zu langen Reihen, Bio- and environmental meteorology section, MeteoSwiss, Zürich, Switzerland.
19. 6. 2006: Klimawandel gestern, heute morgen. Fiktion oder Realität? Seniorenclub Köniz, Switzerland.
19. 5. 2006: Past, Present and Future Climate Impact on Spring and Summer Vegetation – a Phenological Approach. NCCR-Climat Young Researcher's Meeting, Gwatt, Switzerland.
31. 3. 2006: Klimawandel. Auswirkungen auf den Tourismus in den Alpen. Fachtagung Zukunft des Tourismus in den Alpen, Nesselwang, Allgäu, Germany.
6. 2. 2006: Historische Phänologie und Global Change. Vortrag Forstwissenschaftliches Kolloquium, ETH Zürich, Switzerland.
26. 1. 2006: Kirschblüten-Klimatologie. Phänologische Untersuchungen zum Einfluss des Klimas auf die Blüte des Kirschbaums. Verleihung des Anerkennungspreises des Berner Umweltforschungspreises 2005, Switzerland.
19. 9. 2005: Meteorologische Messungen und phänologische Beobachtungen der Oekonomischen Gesellschaft Bern (1759-1803). Internationaler Methoden Workshop an der Universität Bern, Switzerland (Max Burri und This Rutishauser)
5. – 9.9. 2005: The potential of documentary phenological spring observations for reconstructing the beginning of the growing season back to the 1700s. 17. Internationaler Kongress für Biometeorologie, Garmisch-Partenkirchen, Deutschland.
- 16.6.-17.6. 2005: Past, Present and Future Climate Impact on Spring and Summer Vegetation – a Phenological Approach. NCCR-Climat Young Researchers Meeting, Gwatt, Switzerland.
20. 4. 2005: Historische Phänologie, Vortrag Forschungspraktikum Phänologie, Geographisches Institut, Bern, Switzerland.
6. 11. 2004: Wenn die Kirschen blühen..., Phänologie-Kreis Schweiz, Neuenburg, Switzerland.
26. – 30.9. 2004: Plant Phenological Observations and Their Potential for Climate Reconstruction and Climate Impact Research, European Meteorological Society, Nice, France.

23. 2. 2004: Plant Phenology and Climate Change. The example of a 280-year long observation record of cherry tree flowering dates in comparison with temperature changes in Switzerland. Naturgeografisches Institut Universität Stockholm, Stockholm, Sweden.

5. POSTERS

31.8.-5. 9. 2008: Extraordinary spring temperatures, plant phenology and green-up – observations and models, poster at 7th International NCCR Climate Summer School, Monte Verità, Switzerland (**This Rutishauser**)

2.4.2008: Historical Phenological Observations for Past Climate Impact Analyses and Climate Reconstructions, poster at 9th Swiss Global Change Day, Bern (**This Rutishauser**, Jürg Luterbacher, Nicole Meier, François Jeanneret, Christian Pfister und Heinz Wanner).

10.12.–24.12.2007: Remote sensing data assimilation for a prognostic model of vegetation phenology, poster at AGU Fall Meeting, San Francisco (Reto Stöckli, **This Rutishauser**, Hella Ahrends, Scott Denning, Peter Thornton).

10.12.–24.12.2007: Historical Phenological Observations for Past Climate Impact Analyses and Climate Reconstructions, poster at AGU Fall Meeting, San Francisco (**This Rutishauser**, Jürg Luterbacher, Nicole Meier, François Jeanneret, Christian Pfister und Heinz Wanner).

29.10. – 1.11. 2007: Reconstructing spring season changes from documentary evidence, Poster at Berner Umweltforschungstag 2007, Bern (**This Rutishauser**).

29.10. – 1.11. 2007: BERNCLIM. A biomonitoring tool for Seasonality and Climate Impact, Poster at Berner Umweltforschungstag 2007, Bern (François Jeanneret, Robert Brügger, **This Rutishauser**, Heinz Wanner).

18. 2. 2006: Kirschenblühen im Alpenvorland. Poster at Tag der offenen Tür UniS, Interfakultäre Koordinationsstelle für Allgemeine Ökologie, Bern (**This Rutishauser**).

28.8. – 2.9. 2005: Phenological documentary evidence back to the 1700s. Observed information for tracking fingerprints of climate change. Poster at 4th International NCCR Summer School, Grindelwald, Switzerland (**This Rutishauser**).

24. – 29.4. 2005: Can Phenological Observations Describe Ecological Response to Climate Change in Preindustrial Times? Poster at EGU Annual Meeting, Wien, Österreich (**This Rutishauser**, Jürg Luterbacher, Niklaus Steiner, Christian Pfister, François Jeanneret, Heinz Wanner).

3. – 6.5. 2004: Kirschenblühen im Alpenvorland, Poster at Berner Umweltforschungstag 2004 (**This Rutishauser**, Jürg Luterbacher, Christian Pfister, François Jeanneret, Claudio Defila, Heinz Wanner).

29.9. – 1.10. 2003: Kirschenblühen im Alpenvorland. Phänologische Beobachtungen zur Kirschenblüte im Schweizer Mittelland von 1721 bis 2000, Poster at 54. Deutscher

Geographentag Bern 2003 (**This Rutishauser**).

6. – 11.4. 2003: 280 Years of Phenological Observations as Potential Proxy Indicator in Switzerland, Poster at EGU-AGU-EGS Joint Assembly, Nice (**This Rutishauser**, Jürg Luterbacher, Heinz Wanner).

4.4. 2003: 280 Years of Phenological Observations as Potential Proxy Indicator in Switzerland, Poster at 4th Swiss Global Change Day, Bern, (**This Rutishauser**, Jürg Luterbacher, Heinz Wanner).

31.3. – 2.4. 2003: Integrating Historical Phenological Observations into a 280-Year Long Series, Poster at Challenging Times. Towards an operational system for monitoring, modeling and forecasting of phenological changes and their socio-economic impact, Wageningen, The Netherlands (**This Rutishauser**).

Dissertation

Rutishauser, This (2007): Historical Phenology. Plant Phenological Reconstructions and Climate Sensitivity in Northern Switzerland, Dissertation, Geographisches Institut, Universität Bern, p. 168.

Diplom

Rutishauser, This (2003): Cherry Tree Phenology. Interdisciplinary Analyses of Phenological Observations of the Cherry Tree in the Extended Swiss Plateau Region and Their Relation to Climate Change. Diplomarbeit, Geographisches Institut, Universität Bern, p. 122.

Seminararbeiten

Rutishauser, This (2001) The Djäknebol Farmer Diary as Proxy Data for Temperature Reconstruction in Southwestern Sweden 1761-1861, Degree project at the Department of physical geography and quaternary geology, Stockholm University, pp. 49.

Rutishauser, This (2000): Die Jüngere Dryas in Eis und Ozean, Seminararbeit in Paläoökoökologie am Geografischen Institut der Universität Bern, pp. 16.

Rutishauser, This (2000): Zwischen Nächstenliebe und Geltungsdrang. Die Liebesgabensammlung nach den Hochwassern von 1839 im Kanton Uri, Proseminararbeit in Wirtschafts-, Sozial- und Umweltgeschichte am Historischen Institut der Universität Bern, pp. 19.

Verschiedenes

This Rutishauser (2006): Historische Phänologie. In: Skript zur Vorlesung Phänologie, Geographisches Institut, Universität Bern

This Rutishauser (2005): „Wissen aus dem Netz“ in: unilink, Dezember 2005, S. 10-11.

This Rutishauser (2005): "Wir könnten weit mehr Gutes thun". Albrecht von Haller milderte dank intensivem Austausch von Wissen die Auswirkungen der europaweiten Viehseuchen im 18. Jahrhundert, in: Der Kleine Bund, 12. November 2005, S. 6.

This Rutishauser (2005): Das Alpenklima-Experiment, in: unilink, Oktober 2005, S. 19.

This Rutishauser (2005): Preaching Global Change, in: H-Environment book review, June 25 (<http://www.h-net.org/reviews/showrev.cgi?path=238151125082376>).

This Rutishauser (2005): Editorial, in: Schweizer Phänologischer Rundbrief, Nr. 2, S. 1.

This Rutishauser und Heinz Wanner (2004): Europas Überschwemmungen in historischer Perspektive. Grosse Häufigkeitsschwankungen während der letzten 500 Jahre, in: Neue Zürcher Zeitung, 22. Dezember 2004, Nr. 299.

This Rutishauser (2004): Spuren des Frühlings. Christian Röthlisberger hält in Grossaffoltern Veränderungen der Pflanzen- und Tierwelt fest, in: Der Bund, 27. April 2004, p. 30.

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