

# List of Publications Prof. Jürg Luterbacher, PhD

## Publications

Google Scholar (access/June 5 October 2024)

Citation indices	All	Since 2019
Citations	40249	16884
h-index	99	68
i10-index	241	196

Clarivate ISI Web of Knowledge; Number of peer reviewed publications (without proceedings): 222; h-index: >78; sum of the times cited: >21500 (without self-citations)

2024: Highly ranked scholar, placed in the top 0.05% of all scholars worldwide, ranked #65 in Europe (ScholarGPS).

2024: Highly ranked scholar in Environmental Sciences, ranked #250 in the world (Research.com).

2024: Leader award in Environmental Sciences in Germany (Research.com).

## Peer-reviewed Scientific Papers; in press

### Peer-reviewed Scientific Papers, revised, in revision, in review, submitted, in prep

Ma, S., et al. including **Luterbacher, J.**, 2024: The Holocene precipitation dipole pattern in the Asian drylands: mechanisms and processes from PMIP4 simulations and paleo-proxy evidence. *Quat. Sci. Rev.*, accepted.

Lü, F., Sun, Z., Yuan, K., Hou, X., Wang, M., Cheng J., Cao, X., Ding, W., Xoplaki, E., **Luterbacher, J.**, Hou, J., and Chen, F., 2024: Amplification of Elevation-dependent temperature variability since the Last Glacial Maximum. *Geophys. Res. Lett.*, revised.

Paulus, C., et al. including **Luterbacher, J.** 2024: The First Plague Pandemic in the Byzantine Empire – Towards a New Dynamic Consensus. *Human Ecol.*, revised.

Xoplaki, E., Ellsäßer, F., Grieger, J., Nissen, K. M., Pinto, J., Augenstein, M., Chen, T.-C., Feldmann, H., Friederichs, P., Gliksman, D., Goulier, L., Haustein, K., Heinke, J., Jach, L., Knutzen, F., Kollet, S., **Luterbacher, J.**, Luther, N., Mohr, S., Mudersbach, C., Müller, C., Rousi, E., Simon, F., Suarez-Gutierrez, L., Szemkus, S., Vallejo-Bernal, S. M., Vlachopoulos, O., and Wolf, F., 2024: Compound events in Germany in 2018: drivers and case studies. *EGUsphere*, <https://doi.org/10.5194/egusphere-2023-1460>, in revision.

Lu, R., et al., including **Luterbacher, J.**, 2024: Meeting the Paris target by global carbon pricing. *Nat. Comm.*, in review.

Leippold, M., et al. Including **Luterbacher, J.**, 2024: Automated Fact-Checking of Climate Claims with Large Language Models., in review.

Wang, Y., Wang, R., et al. including **Luterbacher, J.** 2024: Transfer of carbon tax revenue bridges the gap of investment in renewable energy to meet the Paris Agreement targets. *Nat. Sust.*, in review.

Man, K., **Luterbacher, J.**, Cai, W., Holland, D., Yuan, N., Liu, Y., Geng, L., Hou, Y., Shi, G., Hou, Y., and Li, X., 2024: Century-long west Antarctic snow accumulation changes induced by tropical Teleconnection. in review.

Nan, Q., Chen, S., Liu, X., Ma, S., Sun, Y., Huang, L., Chen, J., **Luterbacher, J.**, Meadows, M.E., and Chen, F., 2024: The 4.2 ka Event in the Northern Hemisphere: Spatial Heterogeneity and Driving Mechanisms of Hydroclimatic Change. submitted.

Hou, J., et al., including **Luterbacher, J.**, 2024: Recent lake outbursts on the Tibetan Plateau are unprecedented during the Holocene. submitted.

Qin, C., Yang, B., Bräuning, A., Ljungqvist, F., Osborn, T., Shishov, V., He, M., Kang, S., Schneider, L., Esper, J., Buentgen, U., Griessinger, J., Huang, D., Zhang, P., Talento, S., Xoplaki, E., **Luterbacher, J.**, and Stenseth, N.C, 2024: Persistent humid climate favored the Qin and Western Han Dynasties in China around 2200 years ago. submitted.

Behr, L., Xoplaki, E., Luther, N., Josey, S., and **Luterbacher, J.** 2024: The 2023 marine heatwave in the North Atlantic and the Mediterranean: ocean response to atmospheric circulation. *Environ. Res. Lett.*, in prep.

Pechlivanidis, I.G., et al. including **Luterbacher, J.**, 2024: Strategic innovations in research-to-operations hydrological forecasting: Enhancing value across spatial scales and time horizons. In prep

Albayrak, A., et al., including **Luterbacher, J.**, 2024: Navigating the Complexities of Digital Technologies: AI/ML and Data in the Face of Natural Hazards. In prep.

Ljungqvist, F.C., et al., including **Luterbacher, J.**, 2024: Climate and famines – past and present, in prep.

## Peer-reviewed Scientific Papers, Published

**2024**

Kuglitsch, M.M., Cox, J., **Luterbacher, J.**, Jamoussi, B., Xoplaki, E., Thummarukudy, M., Radwan, G.S., Yasukawa, S., McClain, S., Albayrak, A., Oehmen, D., and Ward, T. 2024: AI to the rescue: enhance disaster warnings with tech tools. *Nature*, 634, 27-29, doi: <https://doi.org/10.1038/d41586-024-03149-z>

Schumann, G., et al., including **Luterbacher, J.**, 2024: The Nature Commission on environment, brain and mental health (Earth Brain Health Commission). *Nat. Mental Health*, <https://doi.org/10.1038/s44220-024-00314-1>.

**Luterbacher, J.**, Allan, R., Wilkinson, C., Hawkins, E., Teleti, P., Lorrey, D., Brönnimann, S., Hechler, P., Velikou, K., and Xoplaki, E., 2024: The importance and scientific value of long weather and climate records; the example of global historical marine data. *Climate*, 12, 39; <https://doi.org/10.3390/cli12030039>.

Muccione, V., et al. including **Luterbacher, J.**, 2024: Integrating artificial intelligence with expert knowledge in global environmental assessments: opportunities, challenges and the way ahead. *Reg. Environ. Change*, 24, 121, <https://doi.org/10.1007/s10113-024-02283-8>

**Luterbacher, J.**, Xoplaki, E., Fleitmann, D., and Izdebski, A., 2024: Palaeoclimatology of Byzantine Lands (AD 300–1500). In: *The Brill Companion to the Environmental History of Byzantium*, edited by Adam Izdebski and Johannes Preiser-Kapeller. Leiden: Brill, Vol. 13, 27–58.

Stevens, B., et al., including **Luterbacher, J.**, 2024: Earth Virtualization Engines (EVE). *Earth Syst. Sci. Data.*, 16, 2113–2122.

Govett, M., et al. including **Luterbacher, J.**, 2024: Exascale Computing and Data Handling: Challenges and Opportunities for Weather and Climate Prediction. *Bull. Amer. Met. Soc.*, DOI 10.1175/BAMS-D-23-0220.1.

Newfield, T.P., Roberts, N., Xoplaki, E., et al. including **Luterbacher, J.**, 2024: *Proxies for Plague? New Approaches in Studying the Causes and Consequences of the First Plague Pandemic*, in W. Brandes, H. Reimitz, J. Tannous eds., *Legal Pluralism and Social*

Change in Late Antiquity and the Middle Ages: A Conference in Honor of John Haldon (Klostermann, Frankfurt), 63-115.

## 2023

Kuglitsch, M.M., Albayrak, A., **Luterbacher, J.**, Craddock, A., Toreti, A., Ma, J., Padrino Vilela, P., Xoplaki, E., Kotani, R., and Berod, D. 2023: When it comes to Earth observations in AI for disaster risk reduction, is it feast or famine? A topical review. *Environ. Res. Lett.*, **18**, DOI: 10.1088/1748-9326/acf601

Wang, J., Yang, B., Wang, Z., **Luterbacher, J.**, and Ljungqvist, F.C., 2023: Recent weakening of seasonal temperature difference in East Asia beyond the historical range of variability since the 14th century. *Sci. China Earth Sci.*, **66**, 1133–1146, <https://doi.org/10.1007/s11430-022-1066-5>.

Naumann, G., Podestá, G., Marengo, J., **Luterbacher, J.**, Bavera D., Acosta Navarro, J., Arias Muñoz, C., Barbosa, P., Cammalleri, C., Cuartas, A., de Estrada, M., de Felice M., de Jager, A., Escobar, C., Fioravanti, G., Giordano, Harst Essenfelder, A., L., Hidalgo, C., Leal de Moraes, O., Maetens, W., Magni, D., Masante, D., Mazzeschi, Osman, M., Rossi L., M., Seluchi, M., Skansi, M. M., Spennemann, P., Spinoni, J., Toreti., A, Vera, C., 2023: Extreme and long-term drought in the La Plata Basin: event evolution and impact assessment until September 2022, Publications Office of the European Union, Luxembourg, doi:10.2760/62557, JRC132245.

## 2022

Zaitchik, B.F., Omumbo, J., Lowe, R., van Aalst, M., Anderson, L.O., Fischer, E., Norman, C., Robbins, J., Barciela, R., Trtanj, J., von Borries, R., and **Luterbacher, J.**, 2022: Planning for compound hazards during the COVID-19 pandemic: the role of climate information systems. *Bull. Americ. Met. Soc.*, **103**, E704-E709.

Hermanson, L., et al. (including **Luterbacher, J.**), 2022: WMO Global Annual to Decadal Climate Update: A prediction for 2021-2025. *Bull. Americ. Met. Soc.*, **103**, E1117-E1129.

- Jaume-Santero, F., Barriopedro, D., García-Herrera, R., and **Luterbacher, J.**, 2022: Monthly North Atlantic Sea Level Pressure reconstruction back to 1750 CE using optimized networks of observations. *J. Climate*, **35**, 3395–3410.
- Behr, L., Luther, N., Josey, S.A., **Luterbacher, J.**, Wagner, S., and Xoplaki, E., 2022: On the representation of Mediterranean Overflow Waters in Global Climate Models. *J. Phys. Ocean.*, **52**, 1397–1413.
- Yuan, N., Xiong, F., Xoplaki, E., He, W., and **Luterbacher, J.**, 2022: A new approach to correct the overestimated persistence in tree-ring width based precipitation reconstructions. *Clim. Dynam.*, **58**, 2681–2692.
- Logothetis, I., Dafka, S., Tourpali, K., Misios, S., Zanis, P., Xoplaki, E., **Luterbacher, J.**, and Papagianoulis, E., 2022: Connection between ENSO episodes, Indian Summer Monsoon and the Eastern Mediterranean atmospheric circulation in CMIP5 simulations over the 20th century. *Int. J. Climatol.*, **42**, 4893–4908.
- Yang, B., et al. including **Luterbacher, J.**, 2022: Reply to Weiss: Tree-ring stable oxygen isotopes suggest an increase in Asian monsoon rainfall at 4.2 ka BP. *PNAS*, **119**, e2204067119.
- Seibert, R., Andresen, L.C., Jarosch, K.A., Moser, G., Kammann, C.I., Yuan, N., **Luterbacher, J.**, Laughlin, R.L., Watson, C., Erbs, M., and Müller, C., 2022: Plant functional groups differ in their long-term nutrient response to eCO<sub>2</sub> in an extensive grassland. *Ecosystems*, **25**, 1084–1095.
- Izdebski, A., Bloomfield, K., Eastwood, W.J., Fernandes, R., Fleitmann, D., Guzowski, P., Haldon, J., Ludlow, F., **Luterbacher, J.**, Manning, J., Masi, A., Mordechai, L., Newfield, T., Stine, A., Şenkul, C., and Xoplaki, E., 2022: The emergence of interdisciplinary environmental history: bridging the gap between the humanistic and scientific approaches to the Late Holocene. *Annales: Histoire, Sciences Sociales*, **77**, 11–88; <http://hdl.handle.net/21.11116/0000-000A-B19D-D>

## 2021

- Xoplaki, E., **Luterbacher, J.**, Luther, N., Behr, L., Wagner, S., Jungclaus, J., Zorita, E., Toreti, A., Fleitmann, D., Izdebski, A., Bloomfield, K., 2021: Hydrological Changes in Late Antiquity: Spatio-Temporal Characteristics and Socio-Economic Impacts in the Eastern Mediterranean. In: Erdkamp P., Manning J.G., Verboven K. (eds) *Climate Change and Ancient Societies in Europe and the Near East*. Palgrave Studies in Ancient Economies. Palgrave Macmillan, Cham. [https://doi.org/10.1007/978-3-030-81103-7\\_18](https://doi.org/10.1007/978-3-030-81103-7_18), pp 533-560
- Yang, B., et al., including **Luterbacher, J.**, 2021: Long-term decrease in Asian monsoon rainfall and abrupt climate change events over the past 6,700 years. *PNAS*, **118**, e2102007118.
- Bundo, M., de Schrijver, E., Federspiel, A., Toreti, A., Xoplaki, E., **Luterbacher, J.**, Franco, O.H., Müller, T., and Vicedo-Cabrera, M., 2021: Ambient temperature and mental health hospitalizations in Bern, Switzerland: A 45-year time-series study. *PlosOne*, **E 16**: e0258302.
- Slivinski, L.C. et al., including **Luterbacher, J.**, 2021: An evaluation of the performance of the 20th Century Reanalysis version 3. *J. Climate*, **34**, 1417–1438.
- Hernández, A., Cachão, M., Sousa, P., Trigo, R.M., **Luterbacher, J.**, Vaquero, J.M., and Freitas, M.C., 2021: External forcing mechanisms controlling the North Atlantic coastal upwelling regime during the mid-Holocene. *Geology*, **49**, 433-437.
- Dafka, S., Akritis, D., Zanis, P., Pozzer, A., Xoplaki, E., **Luterbacher, J.**, and Zerefos, C., 2021: On the link between the Etesian winds, tropopause folds and tropospheric ozone over the Eastern Mediterranean during summer. *Atmos. Res.*, **248**, 105161.
- Skrynyk, O., **Luterbacher, J.**, Allan, R., Boichuk, D., Sidenko, V., Skrynyk, O., Palarz, A., Oshurok, D., Osadchy, V., Xoplaki, E., and Soadchyi, V., 2021: Ukrainian early (pre-1850) historical weather observations. *Geosci. Data J.*, **8**, 55-73
- Zhang, M., Tölle, M.H., Hartmann, E., Xoplaki, E., and **Luterbacher, J.**, 2021: A sensitivity assessment of COSMO-CLM to different land cover schemes in convection-permitting climate simulations over EURO-CORDEX. *Atmosphere*, **12**, 1595; <https://doi.org/10.3390/atmos12121595>

## Not peer-reviewed 2021 publication:

Naumann, G., Podesta, G., Marengo, J., **Luterbacher, J.**, Bavera, D., Arias Muñoz, C., Barbosa, P., Cammalleri, C., Chamorro, L., Cuartas, A., de Jager, A., Escobar, C., Hidalgo, C., Leal de Moraes, O., McCormick N., Maetens, W., Magni, D., Masante, D., Mazzeschi, M., Seluchi, M., Skansi, M. M., Spinoni, J., Toreti, A. The 2019-2021 extreme drought episode in La Plata Basin, EUR 30833 EN, Publications Office of the European Union, Luxembourg, 2021, ISBN 978-92-76-41898-6 (online), doi:10.2760/773, JRC126508

## 2020

**Luterbacher, J.**, Newfield, T.P., Xoplaki, E. et al., 2020: Past pandemics and climate variability across the Mediterranean. *Euro-Mediterr. J. Environ. Integr.* **5**, 46.

Zaitchik, B.F., Sweijid, N., Shumake-Guillemot, J., **Luterbacher, J.**, et al., 2020: A framework for research linking weather, climate and COVID-19. *Nat. Commun.* **11**, 5730. <https://doi.org/10.1038/s41467-020-19546-7>

Ratna, S.B., Osborn, T.J., Joshi, M., and **Luterbacher, J.**, 2020: The influence of Atlantic variability on Asian summer climate is sensitive to the pattern of Sea Surface Temperature anomaly. *J. Climate*, **33**, 7567-7590

Hartmann, E., Schulz, J-P., Seibert, R., Schmidt, M., Zhang, M., **Luterbacher, J.**, and Tölle, M.H., 2020: Impact of Environmental Conditions on Grass Phenology in the Regional Climate Model COSMO-CLM. *Atmosphere*, **11**, 1364; <https://doi.org/10.3390/atmos11121364>

Bundo, M., de Schrijver, E., Federspiel, A., **Luterbacher, J.**, Franco, O.H., Müller, T., and Vicedo-Cabrera, A.M., 2020: Impact of ambient temperature on mental health in Bern, Switzerland: a time-series study. *Europ. J. Pub. Health*, **30**, ckaa165.373, <https://doi.org/10.1093/eurpub/ckaa165.373>

Palarz, A., **Luterbacher, J.**, Ustrnul, Z., Xoplaki, E., and Celiński-Mysław, D., 2020: Representation of low-tropospheric temperature inversions in ECMWF reanalyses over Europe. *Env. Res. Lett.*, **15**, 074043.



Ljungqvist, F.C., Piermattei, A., Seim, A., Krusic, P.J., Büntgen, U., He, M., Kirilyanov, A.V., **Luterbacher, J.**, Schneider, L., Seftigen, K., Stahle, D.W., Villalba, R., Yang, B., and Esper, J., 2020: Ranking of tree-ring based hydroclimate reconstructions of the past millennium. *Quat. Sci. Rev.*, **230**, 106074.

Talento, S., Osborn, T.J., Joshi, M., Rajtna, S., and **Luterbacher, J.**, 2020: Response of the Asian summer Monsoons to a high-latitude thermal forcing: mechanisms and nonlinearities. *Clim. Dynam.*, **54**, 3927–3944.

Esper, J., Klippel, L., Krusic, P.J., Konter, O., Raible, C.C. Xoplaki, E., **Luterbacher, J.**, and Büntgen, U., 2020: Eastern Mediterranean summer temperatures since 730 CE from Mt. Smolikas tree-ring density data. *Clim. Dynam.*, **54**, 1367–1382.

Chamorro, A., Tölle, M.H., Ivanov, M., **Luterbacher, J.**, and Breuer, L., 2020: Analyzing future pattern changes of meteorological drought events in the Fulda catchment, Germany. *Int. J. Climatol.*, **40**, 5515-5526.

Büntgen, U, González-Rouco, J.F., **Luterbacher, J.**, Stenseth, N.C., and Johnson, D.M., 2020: Extending the (paleo)climatic concept of 'Detection and Attribution' to global change ecology in the Anthropocene. *Funct. Ecol.*, **34**, 2270–2282.

Hernández, A., Martín-Puertas, C., Moffa-Sánchez, P., Moreno-Chamarro, E., Ortega, P., Blockley, S., Cacho, I., Cobb, K.M., Comas-Bru, L., Giralt, S., Goosse, H., **Luterbacher, J.**, Martrat, B., Muscheler, R., Parnell, A., Pla-Rabes, S., Sjolte, J., Scaife, A.A., Swingedouw, D., Wise, E., and Xu, G., 2020: Modes of climate variability: synthesis and review of proxy-based reconstructions through the Holocene. *Earth-Sci. Rev.*, **209**, 103286.

## 2019

Duan, J., Ma, Z., Wu, P., Xoplaki, E., Hegerl, G., Li, L., Schurer, A., and **Luterbacher, J.**, 2019: Detection of human influences on temperature seasonality from the 19th century. *Nature Sustainability*, **2**, 494-490.

Yuan, N., Huang, Y., Duan, J., Zhu, C., Xoplaki, E., and **Luterbacher, J.**, 2019: On climate prediction: How much can we expect from climate memory? *Clim. Dynam.*, **52**, 855-864.

Obermeier, W.A., Lehnert, L.W., Pohl, M.J., Makowski, Gianonnia, S., Silva, B., Seibert, R., Laser, H., Moser, G., Müller, C., **Luterbacher, J.**, and Bendix, J., 2019: Grassland ecosystem services in a changing environment: The potential of hyperspectral monitoring. *Remote Sens. Environ.*, **232**, 111273.

**Luterbacher, J.**, and Xoplaki, E., 2019: Palaeoclimatic conditions during the Hellenistic period in the Eastern Mediterranean. In: Zerefos, C.S. and M. V. Vardinoyannis (Eds.) Hellenistic Alexandria: Celebrating 24 Centuries, *Archaeopress Archaeology*, Oxford, UK, pp. 272-279, ISBN 9781789690675

Toreti, A., Belward, A., Perez-Dominguez, I., Naumann, G., Manfron, G., **Luterbacher, J.**, Cronie, O., Seguini, L., Baruth, B., van den Berg, M., Dentener, F., Ceglar, A., Chatzopoulos, T., and Zampieri, M., 2019: The exceptional 2018 European water seesaw calls for action on adaptation. *Earth Fut.*, **7**, 652–663

Schurer, A.P., Hegerl, G.C., **Luterbacher, J.**, Brönnimann, S., Cowan, T., Tett, S., Zanchettin, D., and Timmreck, C., 2019: Disentangling the causes of the 1816 European year without a Summer. *Environ. Res. Lett.* **14**, 094019.

Ljungqvist, F.C., Seim, A., Krusic, P.J., González-Rouco, J.F., Werner, J.P., Cook, E.R., Zorita, E., **Luterbacher, J.**, Xoplaki, E., Destouni, G., García-Bustamante, E., Melo-Aguilar, C.A., Seftigen, K., Wang, J., Gagen, M.H., Esper, J., Fleitmann, D., Solomina, O., and Büntgen, U., 2019: Warm-season temperature and hydroclimate co-variability across Europe since 850 CE. *Environ. Res. Lett.* **14** 084015.

Brönnimann, S., et al., including **Luterbacher, J.**, 2019: Unlocking pre-1850 instrumental meteorological records: A global inventory. *BAMS*, **100**, ES389–ES413.

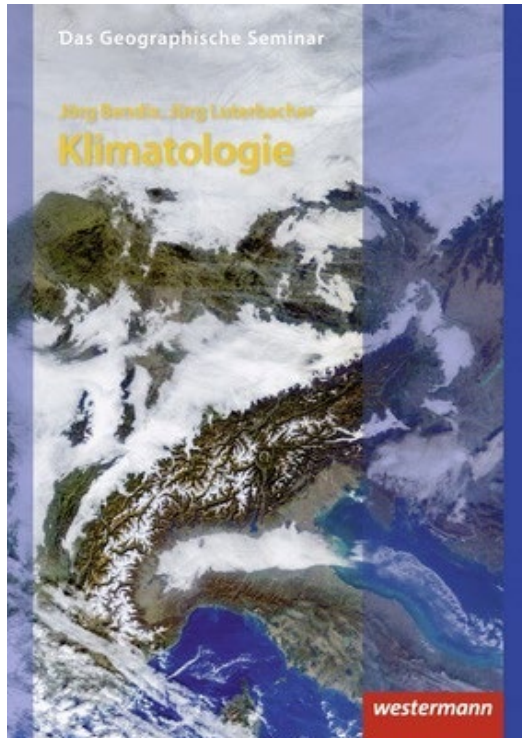
Zhou, T., **Luterbacher, J.**, Wu, S., Y., Li, C., Chao, Q., Cheng, X., Duan, Y., Stevens, B., Voigt, S., Zheng, X., and Zou, L. 2019: A new era of China-Germany joint research exploring the climate mystery of Earth. *Sci. Bulletin*, **64**, 1733-1736.

Dafka, S., Toreti, A., Zanis, P., Xoplaki, E., and **Luterbacher, J.**, 2019: Twenty-first-century changes in the mid-latitude atmospheric circulation and their connection to the eastern Mediterranean winds. *J. Geophys. Res.-Atmosphere*, **124**, 12741-12754.

- Talento, S., Schneider, L., Werner, J.P., and **Luterbacher, J.**, 2019: Precipitation Reconstruction over Continental Asia: Pseudo-Proxy Approach. *Earth Syst. Dynam.* **10**, 347-364.
- Schneider, L., Ljungqvist, F.C., Yang, B., Chen, F., Chen, J., Li, J., Hao, Z., Ge, Q., Talento, S., Osborn, T.J., and **Luterbacher, J.**, 2019: The impact of proxy selection on a millennium-long ensemble of hydroclimatic records in Monsoon Asia. *Quat. Sci. Rev.*, **223**, 105917.
- Tejedor, E., de Luis, M., Barriendos, M., Cuadrat, J.M., **Luterbacher, J.**, and Saz M.A., 2019: Rogation ceremonies: A key to understanding past drought variability in north-eastern Spain since 1650. *Clim. Past*, **15**, 1647–1664.
- Slivinski, L.C. et al., including **Luterbacher, J.**, 2019: Towards a more reliable historical reanalysis: Improvements for version 3 of the Twentieth Century Reanalysis system. *Quart. J. Roy. Met. Soc.* **145**, 2876– 2908. <https://doi.org/10.1002/qj.3598>.
- Compo, G. P., Slivinski, L. C., Whitaker, J. S., Sardeshmukh, P. D., McColl, C., Brohan, P., Allan, R., Yin, X., Vose, R., Spencer, L. J., Ashcroft, L., Bronnimann, S., Brunet, M., Camuffo, D., Cornes, R., Cram, T. A., Crouthamel, R., Dominguez-Castro, F., Freeman, J. E., Gergis, J., Giese, B. S., Hawkins, E., Jones, P. D., Jourdain, S., Kaplan, A., Kennedy, J., Kubota, H., Blancq, F. L., Lee, T., Lorrey, A., **Luterbacher, J.**, Maugeri, M., Mock, C. J., Moore, K., Przybylak, R., Pudmenzky, C., Reason, C., Slonosky, V. C., Tinz, B., Titchner, H., Trewin, B., Valente, M. A., Wang, X. L., Wilkinson, C., Wood, K., and Wyszynski, P. (2019): The International Surface Pressure Databank version 4. Research Data Archive at the National Center for Atmospheric Research, Computational and Information Systems Laboratory. <http://rda.ucar.edu/datasets/ds132.2/>.

Bendix, J., and **Luterbacher, J.**, 2019: *Klimatologie*. Das Geographische Seminar. Westermann Verlag, 329 p, 978-3-14-160284-5

<https://www.westermann.de/artikel/978-3-14-160284-5/Klimatologie-Neubearbeitung-2019>



## 2018

**Luterbacher, J.**, and Zorita, E. 2018: Spatial climate field reconstructions. In: White, S., Pfister, C. and Mauelshagen, F. (Eds). *The Palgrave Handbook of Climate History*. Palgrave Macmillan UK, 131-139.

Ivanov, M.A., **Luterbacher, J.**, and Kotlarski, S., 2018: Effect of Model Biases on the Climate Change Signal. *J. Climate*, **31**, 6591–6610.

Xoplaki, E., **Luterbacher, J.**, Wagner, S., Zorita, E., Fleitmann, D., Haldon, J.F., Preisler-Kapeller, J., Sargent, A., Toreti, A., White, S., Mordechai, L., Bozkurt, D., Akçer, S., and Izdebski, A., 2018: Climate and societal resilience in the Eastern Mediterranean during the last millennium. *Human Ecol.*, **46**, 363–379.

- Yuan, N., Moser, G., Müller, C., Obermeier, W.A., Bendix, J., and **Luterbacher, J.**, 2018: Extreme climatic events down-regulate the grassland biomass response to elevated carbon dioxide. *Nat. Sci. Reports*, **8**:17758.
- Obermeier, W.A., Lehnert, L.W., Ivanov, M.A., **Luterbacher, J.**, and Bendix, J., 2018: Reduced summer aboveground biomass in temperate C<sub>3</sub> grasslands under climate change regimes. *Earth's Future*, **6**, 716-729.
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- Duan, J., Li, L., Esper, J., Büntgen, U., Xoplaki, E., Zhang, D., Wang, L., Hong, Y., and **Luterbacher, J.**, 2018: Summer cooling driven by large volcanic eruptions over the Tibetan Plateau. *J. Climate*, **31**, 9869-9879.
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