Professor Dr. Julia Boike

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Degrees

2006/10 – 2012/02	Habilitation, Chemistry and Earth Sciences, Ruprecht Karl University, Heidelberg, Germany
1993/10 – 1997/03	Doctorate, PhD, Geosciences, Potsdam University, Germany
1990/10 – 1993/09	Master's, Geography, Wilfrid Laurier University, Canada
1987/10 – 1990/09	Pre-Diploma, Physical Hydrology, Albert-Ludwigs-University, Freiburg, Germany

Recognitions

1997	First Annual Award for Arctic Research Excellence of the Arctic Research Consortium of the U.S. (ARCUS)
1995	Horton Hydrology Research Grant of the American Geophysical Union (AGU)
1992	Government of Canada Awards for Foreign Nationals

User Profile

Research Interests	Permafrost hydrologic and thermal processes, energy and water exchange between permafrost and atmosphere
Geographical Regions	Travel to field sites every year for more than 25 years: northern Canadian, Russian (Siberia), and European Arctic (Svalbard)
Responsibilities	Running long term observatories (Svalbard, Arctic Siberia)

Employment

2003/02 – ongoing	Senior researcher (group leader), Alfred-Wegener-Institute, Helmholtz-Center for Polar- and Marine Research, Germany
2000/09 – 2003/01	Postdoctoral Fellow, Water and Environmental Research Center, University of Alaska, Fairbanks (stipend German National Academy of Sciences Leopoldina)
1997/04 – 2000/08	Postdoctoral Fellow, Alfred-Wegener-Institute, Helmholtz-Center for Polar- and Marine Research, Germany
1993/10 – 1997/03	PhD student, Potsdam University, Germany

Affiliations

2017/07 – ongoing	Geography Department, Humboldt University, Berlin
2003/02 – ongoing	

2006/01 – 2017/01	Alfred-Wegener-Institute, Helmholtz-Center for Polar- and Marine Research, Germany
2000/09 – 2003/01	Lecturer, Ruprecht Karl University, Heidelberg, Germany
1997/04 – 2000/08	Assistant Professor, University of Alaska, USA
1993/10 – 1997/03	Postdoctoral Fellow, Alfred-Wegener-Institute, Helmholtz-Center for Polar- and Marine Research, Germany PhD student, Alfred-Wegener-Institute, Helmholtz-Center for Polar- and Marine Research, Germany

Board members	Advisory Board, Next-Generation Ecosystem Experiments (NGEE Arctic) Expert in Global Cryosphere Watch (GCW) working structure of WMO Steering committee member T-MOSAiC
International Collaboration Activities	T-MOSAiC permafrost thaw MOSES permafrost thaw Co-Principal Coordinator, PAGE21 (Changing Permafrost in the Arctic and its Global Effects in the 21st Century), 2011 – 2015

Supervision (direct)	➢ 25 (including PhDs, Masters + BSc)
Supervision (indirect, i.e. committee member)	➢ 40 (including PhDs, Masters + BSc)

10 top Publications

1) Nitzbon, J., Westermann, S., Langer, M., Martin, L.C.P., Strauss, J., Laboor, S., **Boike, J.** (2020): Fast response of cold ice-rich permafrost in northeast Siberia to a warming climate. *Nat Commun,* 11: 2201, doi: 10.1038/s41467-020-15725-8
2) Muster, S., Riley, W.J., Roth, K., Langer, M., Aleina, F.C., Koven, C.D., Lange, S., Bartsch, A., Grosse, G., Wilson, C.J., Jones, B.M., **Boike, J.** (2019): Size Distributions of Arctic Waterbodies Reveal Consistent Relations in Their Statistical Moments in Space and Time. *Frontiers in Earth Science*, 7: 1-15, doi: 10.3389/feart.2019.00005.
3) Abnizova, A., Siemens, J., Langer, M. and **Boike, J.** (2012): Small ponds with major impact: The relevance of ponds and lakes in permafrost landscapes to carbon dioxide emissions. *Global Biogeochemical Cycles*, AGU, 26 (2), doi:10.1029/2011GB004237.
4) **Boike, J.**, Grau, T., Heim, B., Günther, F., Langer, M., Muster, S., Gouttevin, I., Lange, S. (2016): Satellite-derived changes in the permafrost landscape of central Yakutia, 2000–2011: Wetting, drying, and fires. *Global and Planetary Change***,** 139: 116-127.
5) Liljedahl, A.K., **Boike, J.**, Daanen, R.P., Fedorov, A.N., Frost, G.V., Grosse, G., Hinzman, L.D., Iijma, Y., Jorgenson, J.C., Matveyeva, N., Necsoiu, M., Raynolds, M.K., Romanovsky, V.E., Schulla, J., Tape, K.D., Walker, D.A., Wilson, C.J., Yabuki, H., Zona, D. (2016): Pan-Arctic ice-wedge degradation in warming permafrost and its influence on tundra hydrology. *Nature Geoscience*, 9: 312-318, doi:10.1038/ngeo2674.
6) **Boike, J.**, Kattenstroth, B., Abramova, K., Bornemann, N., Chetverova, A., Fedorova, I., Fröb, K., Grigoriev, M., Grüber, M., Kutzbach, L., Langer, M., Minke, M., Muster, S., Piel, K., Pfeiffer, E.-M., Stoof, G., Westermann, S., Wischnewski, K., Wille, C. and Hubberten, H.-W. (2013): Baseline characteristics of climate, permafrost and land cover from a new permafrost observatory in the Lena River Delta, Siberia (1998–2011). *Biogeosciences*, 10: 2105-2128, doi:10.5194/bg-10-2105-2013.
7) **Boike, J.**, Roth, K. and Ippisch, O. (2003): Seasonal snow cover on frozen ground: Energy balance calculations of a permafrost site near Ny-Ålesund, Spitsbergen. *Journal of Geophysical Research (Atmosphere)*, 108(D2), 8163, 4/1-11, doi:10.1029/2001JD000939.

8) Langer, M., S. Westermann, S., **Boike, J.**, Kirillin, G, Grosse, G., Peng, S. and Krinner, G. (2017): Rapid degradation of permafrost underneath waterbodies in tundra landscapes - towards a representation of thermokarst in land surface models, *Journal of Geophysical Research - Earth Surface*, doi:10.1002/2016JF003956.
9) Antonova, S., Kääb, A., Heim, B., Langer, M. and **Boike, J**. (2016): Spatio-temporal variability of X-band radar backscatter and coherence over the Lena River Delta, Siberia. *Remote Sensing of Environment,* 182, 169-191, doi:10.1016/j.rse.2016.05.003.
10) Muster, S., Langer, M., Abnizova, A., Young, K.L. and **Boike, J.** (2015): Spatio-temporal sensitivity of MODIS land surface temperature anomalies indicates high potential for large-scale land cover change detection in permafrost landscapes. *Remote Sensing of Environment*, 168: 1–12, doi:10.1016/j.rse.2015.06.017.