Curriculum Vitae

Christian Stiegler, PhD

University of Goettingen, Bioclimatology
Büsgenweg 2, 37077 Göttingen, GERMANY
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since 08/2016 **Postdoctoral researcher**, University of Göttingen, Göttingen, Germany

- Bioclimatology
- Collaborative Research Centre 990: Ecological and Socioeconomic Functions of Tropical Lowland Rainforest Transformation Systems (Sumatra, Indonesia)

05/2016 – 06/2016 **Research assistant,** Aarhus University, Risø, Denmark

- Department of Bioscience – Arctic Ecosystem Ecology

10/2011 – 02/2016 **Doctoral studies,** Geobiosphere Science with specialization in Physical Geography and Ecosystem Analysis, Lund University, Sweden

- Department of Physical Geography and Ecosystem Science
- **Title of Ph.D. thesis:** "Surface energy exchange and land-atmosphere interactions of Arctic and subarctic tundra ecosystems under climate change"
- **Degree & defence date**: Doctor of Philosophy (Ph.D.), 19 February 2016

12/2008 – 07/2011 **MSc studies,** Environmental System Science and Physical Geography, Karl-Franzens University Graz, Austria

- Department of Geography and Regional Science
- **Title of Master's thesis:** "Studies of vegetation, microclimate and distribution of permafrost at an undercooled scree slope near Schladming (Styria, Austria)"
- **Degree & defence date:** Mag. rer. nat., 28 July 2011

01/2009 – 06/2009 **ERASMUS exchange student,** University of Turku, Finland

- Department of Geography and Geology

10/2005 – 11/2008 **BSc studies,** Environmental System Science and Physical Geography, Karl-Franzens University Graz, Austria

- Department of Geography and Regional Science
- **Title of Bachelor's thesis:** "The glaciers of Bolivia and their dynamics"
- **Degree:** Bakk. rer. nat.

Selected conferences

10/2019 AsiaFlux 2019, 20th Anniversary Workshop, Takayama, Japan
Poster: “The greenhouse gas and energy balance of a commercial oil palm plantation in tropical lowland Jambi province (Sumatra, Indonesia)

04/2019 EGU General Assembly 2019, Vienna, Austria
Poster: “What drives ecosystem nitrous oxide (N_2O) greenhouse gas flux in a mature commercial oil palm plantation?”

PICO (Presenting Interactive COntent): “Land use transformation and changing flooding regimes – An attempt of integrating social and natural science methods”

04/2018 EGU General Assembly 2018, Vienna, Austria
Poster: “In the line of fire: Modelling the impact of drought and fire-induced haze during the 2015-2016 El Niño–Southern Oscillation (ENSO) event on surface energy balance and greenhouse gas fluxes in an oil palm plantation using CLM-Palm model”

Poster: “Spatial distribution of evapotranspiration and turbulent heat fluxes in a mature oil palm plantation using thermal imagery from UAV and two-source energy balance models”

11/2017 BIOMET-Conference (Biometeorology), Stralsund, Germany
Talk: “Fluxes of water, energy and carbon dioxide in an Indonesian oil palm plantation during the 2015-2016 ENSO climate phenomenon: results from microclimatic measurements and model simulations using CLM-Palm model”

12/2016 AGU Fall Meeting 2016, San Francisco, USA
Poster: “The impact of the 2015-2016 El Niño–Southern Oscillation (ENSO) event on greenhouse gas exchange and surface energy budget in an Indonesian oil palm plantation”

04/2015 EGU General Assembly 2014, Vienna, Austria
Talk: “A comparative approach to assess variation in surface energy fluxes in northern high-latitude ecosystems”

04/2015 EGU General Assembly 2014, Vienna, Austria
PICO (Presenting Interactive COntent): “ICOS Sweden – a national infrastructure network for greenhouse gas research”

04/2014 EGU General Assembly 2014, Vienna, Austria
Talk: “Carbon balance and greenhouse gas emissions of subarctic lowland palsa mires related to permafrost degradation”

12/2013 AGU Fall Meeting 2013, San Francisco, USA
Poster: “Surface energy balance of subarctic lowland palsa mires related to permafrost degradation”

04/2013 EGU General Assembly 2013, Vienna, Austria
Poster: “Comparative studies of land-atmosphere energy exchange in high and low Arctic tundra ecosystems“

04/2013 EGU General Assembly 2013, Vienna, Austria
Poster: “Geophysical survey of permafrost lenses under a hanging bog at low elevation (Untertal, Austria)”

Publications

Peer-reviewed journals

Darras, K.F.A.; Corre, M.D., Formaglia, G.; Tjoa, A.; Potapov, A.; Brambach, F.; Sibhatu, K.T.; Grass, I.; Rubiano, A.A.; Buchori, D.; Drescher, J.; Fardiansah, R.; Hölscher, D.; Irawan, B.; Kneib, T.; Krashevska, V.; Krause, A.; Kreft, H.; Li, K.; Maraun, M.; Polle, A.; Ryadin, A.R.; Rembold, K.; **Stiegler, C.**; Scheu, S.; Tarigan, S.; Valdés-Uribe, A.; Yadi, S.; Tscharntke, T.; Veldkamp, E. (2019): Reducing fertilizer and avoiding herbicides in oil palm plantations – ecological and economic valuations, Frontiers in Forests and Global Change, 2(65), doi: 10.3389/ffgc.2019.00065.

Stiegler, C.; Meijide, A.; Fan, Y.; Ali, A.A.; June, T.; Knohl, A. (2019): El Niño–Southern Oscillation (ENSO) event reduces CO_2 uptake of an Indonesian oil palm plantation, *Biogeosciences*, **16**, 2873-2890, doi: 10.5194/bg-16-2873-2019.

June, T.; Meijide, A.; **Stiegler, C.**; Kusuma, AP.; Knohl, A. (2018): The influence of surface roughness and turbulence on heat fluxes from an oil palm plantation in Jambi, Indonesia, *IOP Conf. Series: Earth and Environmental Science*, **149**, 012048; doi: 10.1088/1755-1315/149/1/012048.

Lund, M., **Stiegler, C.**, Abermann, J., Citterio, M., Hansen, B.U. and van As, D. (2017): Spatiotemporal variability in surface energy balance across tundra, snow and ice in Greenland, *Ambio*, **46**, Supplement 1, 81-93, doi: 10.1007/s13280-016-0867-5.

Stiegler, C., Lund, M., Christensen, T.R., Mastepanov, M. and Lindroth, A. (2016): Two years with extreme and little snowfall: Effects on energy partitioning and surface energy exchange in a high-Arctic tundra ecosystem, *The Cryosphere* 10, 1395-1413, doi: 10.5194/tc-10-1395-2016.

Stiegler, C., Johansson, M., Christensen, T.R., Mastepanov, M. and Lindroth, A. (2016): Tundra permafrost thaw cause significant shifts in energy partitioning, *Tellus B*, **68**, 30467, doi: 10.3402/tellusb.v68.30467.

Lund, M., Hansen, B.U., Pedersen, S.H., **Stiegler, C.** and Tamstorf, M.P. (2014): Characteristics of summer-time energy exchange in a high Arctic tundra heath 2000-2010, *Tellus B* **66**, 21631, doi: 10.3402/tellusb.v66.21631.

Stiegler, C., Rode, M., Sass, O. and Otto, J.C. (2014): An undercooled scree slope detected by geophysical investigations in sporadic permafrost below 1000 m a.s.l., Central Austria, *Permafrost and Periglacial Processes* **25**, 194-207, doi: 10.1002/ppp.1813.

Bosiö, J., **Stiegler, C.**, Johansson, M., Mbufong, H.N. and Christensen, T.R. (2013): Increased photosynthesis compensates for shorter growing season in subarctic tundra – 8 years of snow accumulation manipulations, *Climatic Change* **127**, 321-334, doi: 10.1007/s10584-014-1247-4.

Brunner, H., Friess, T., Borovsky, M., Komposch, C., Komposch, H, Lazar, R., Lechner, B., Mariani, O., Maurer, B., Paill, W., Schats, I. and **Stiegler, C.** (2013): Invertebrate fauna of undercooled scree slopes in the eastern Alps - Characteristics, significance, threats and protection in times of climate change, *Naturschutz und Landschaftsplanung* **45(1)**, 5-12.

Ph.D. thesis

Stiegler, C. (2016): Surface energy exchange and land-atmosphere interactions of Arctic and subarctic tundra ecosystems under climate change, Ph.D. thesis, Lund University, ISBN 978-91-85793-54-9.

Popular science outreach

Stiegler, C., Lindroth, A. and Christensen, T.R. (2015): Energy exchange in the Arctic – a “butterfly effect” for the global climate? In: INTERACT Stories of Arctic Science, Callaghan, T.V., Savela, H. (eds.), DCE – Danish Centre for Environment and Energy, Aarhus University, 92-93, doi: 10.2312/GFZ.LIS.2015.002.