Dr. Christian Levers

Marie Skłodowska-Curie Actions - Global Fellow UBC Killam Postdoctoral Research Fellow

Department of Computational Landscape Ecology Helmholtz Centre for Environmental Research - UFZ Permoserstr. 15 | 04318 Leipzig | Germany christian.levers@ufz.de +49 (0) 341 235 482256

Institute for Resources, Environment, and Sustainability (IRES) & School of Public Policy and Global Affairs (SPPGA)

University of British Columbia

IRES: 2202 Main Mall | Vancouver, BC V6T 1Z4 | Canada

SPPGA: 6476 NW Marine Drive | Vancouver, BC V6T 1Z2 | Canada

christian.levers@ubc.ca

EDUCATION

2011 – 2016 Doctoral degree (Dr. rer. nat.) in Geography

Faculty of Mathematics and Natural Sciences, Humboldt-Universität zu Berlin, Germany.

Overall grade: magna cum laude

Thesis title: Understanding spatial patterns of land-system change in Europe. Reviewers: Tobias Kuemmerle (supervisor), Tobia Lakes, and Ariane Walz.

Thesis grade: magna cum laude Defense grade: summa cum laude

2007 – 2009 Master of Science in Geography

Department of Geography, Humboldt-Universität zu Berlin, Germany.

Overall grade: excellent (1.0)

Thesis title: Modellierung von Grundwasserströmung und Wärmetransport in einer peri-urbanen Flusstalaue [Modeling of groundwater flows and heat transport in a peri-urban river valley flood plain].

Supervisors: Gunnar Nützmann and Tobia Lakes.

Thesis grade: excellent (1.0)

2003 – 2006 Bachelor of Science in Geography

Department of Geography, Ruhr-Universität Bochum, Germany.

Overall grade: excellent (91 %)

Thesis title: Untersuchung zum Einfluss von Beleuchtungssystemen auf das Mikroklima von Schauhöhlen am Beispiel der Punkva-Höhle (Tschechische Republik) und der Jewel Cave (USA) [Investigation of influences on the microclimate of show caves caused by lighting systems shown at the examples of Punkva Cave (Czech Republic) and Jewel Cave (USA)].

Supervisor: Andreas Pflitsch. Thesis grade: excellent (100%)

1993 – 2002 Abitur

Franz-Haniel Gymnasium, Duisburg, Germany.

Overall grade: good (1.9)

EMPLOYMENT

Professional experience

2018/09 - 2021/08

Postdoctoral research fellow at the Department of Computational Landscape Ecology, Helmholtz Centre for Environmental Research - UFZ, Leipzig, Germany.

| 2018/09 - 2020/08 | Postdoctoral research fellow at the Institute for Resources, Environment and Sustainability & the School of Public Policy and Global Affairs, University of British Columbia, Vancouver, Canada. |
|-------------------|--|
| 2016/03 - 2018/08 | Postdoctoral researcher at the Department of Geography, Conservation Biogeography Lab, Humboldt-Universität zu Berlin, Germany. |
| 2011/05 - 2016/02 | Doctoral researcher at the Department of Geography, Conservation Biogeography Lab, Humboldt-Universität zu Berlin, Germany. |
| 2010/08 - 2010/09 | Scientific assistant at the Department of Geography, Geomatics Lab, Humboldt-Universität zu Berlin, Germany. |
| 2009/10 - 2010/07 | Research and teaching assistant at the Department of Geography, Geomatics Lab, Humboldt-Universität zu Berlin, Germany. |

Undergraduate experience

| 2009/04 - 2009/06 | Student assistant at the Department of Ecohydrology, Leibniz-Institute of Freshwater Ecology and Inland Fisheries, Berlin, Germany. |
|-------------------|--|
| 2009/02 - 2009/07 | Graduate assistant at the Department of Geography (Climatology), Ruhr-Universität Bochum, Germany. |
| 2008/06 - 2008/12 | Student assistant at the Department of Geography (Climatology), Humboldt-Universität zu Berlin, Germany. |
| 2008/04 - 2008/07 | Student assistant at the Department of Ecohydrology, Leibniz-Institute of Freshwater Ecology and Inland Fisheries, Berlin, Germany. |
| 2005/06 - 2007/03 | Student assistant at the Department of Geography (Soil Science), Ruhr-Universität Bochum, Germany. |

RESEARCH (CITATIONS: 724 | H-INDEX: 17 | I10-INDEX: 17)

Publications in peer-reviewed journals

under review

- Levers C.& Müller D. (under review). Mapping the land-use footprint of exported crop production. In: Nielsen J.Ø. & Friis C. (Eds.), Global Land-Use Change: The relevance of telecoupling research. Palgrave Macmillan Publishers Ltd, London, UK.
- Heuck C., Herrmann C., Levers C., Leitão P.J., Krone O., Brandl R. & Albrecht J. (under review). Habitat suitability predicts wind turbine collision fatalities of the White-tailed Sea Eagle. *Biological Conservation*.
- Macchi L., Baumann M., Bluhm H., Baker M., Levers C., Grau H.R. & Kuemmerle T. (under review). Thresholds in bird community composition along gradients of woody vegetation in the South American Dry Chaco. *Journal of Applied Ecology*.
- Torrella S., Piquer-Rodríguez M., Levers C., Ginzburg R., Gavier-Pizarro G. & Kuemmerle T. (under review). Opportunities of multi-scale spatial planning to maintain forest connectivity in the Argentine Chaco despite deforestation. *Ecology and Society*.

2018

- Kuemmerle T., Levers C., Bleyhl B., Olech W., Perzanowski K., Reusch C. & Kramer-Schadt S. (2018). One size does not fit all: European bison habitat selection across herds and spatial scales. *Landscape Ecology*, in press. https://dx.doi.org/10.1007/s10980-018-0684-2
- Schulp C.J.E., **Levers C.**, Kuemmerle T., Tieskens K. & Verburg P.H. (2018). Mapping and modelling past and future land use change in Europe's cultural landscapes. *Land Use Policy*, in press. https://dx.doi.org/10.1016/j.landusepol.2018.04.030

- Sabatini F.M., Burrascano S., Keeton W.S., **Levers C.**, Lindner M., Pötzschner F., Verkerk P.J., Bauhus J., Buchwald E., Chaskovsky O., Debaive N., Horváth F., Garbarino M., Grigoriadis N., Lombardi F., Marques Duarte I., Meyer P., Midteng R., Mikac S., Mikolas M, Motta R., Mozgeris G., Nunes L., Panayotov M., Ódor P., Ruete A., Simovski B., Stillhard J., Svoboda M., Szwagrzyk J., Tikkanen O-P., Volosyanchuk R., Vrska T., Mladenov Zlatanov T. & Kuemmerle T. (2018). Where are Europe's last primary forests? *Diversity and Distributions*, in press. https://dx.doi.org/10.1111/ddi.12778
- Baumann M., Levers C., Macchi L., Bluhm H., Waske B., Gasparri I. & Kuemmerle T. (2018). Mapping continuous fields of tree and shrub cover across the Gran Chaco using Landsat 8 and Sentinel-1 data. *Remote Sensing of Environment*, 216, pp 201-211. https://doi.org/10.1016/j.rse.2018.06.044
- Levers C., Schneider M., Prishchepov A.V., Estel S. & Kuemmerle T. (2018). Spatial variation in determinants of agricultural land abandonment in Europe. *Science of the Total Environment*, 644, pp 95-111. https://dx.doi.org/10.1016/j.scitotenv.2018.06.326
- Estel S., Mader S., Levers C., Verburg P.H., Baumann M. & Kuemmerle T. (2018). Combining satellite data and agricultural statistics to map grassland management intensity in Europe. *Environmental Research Letters*, 13(7), 074020. https://doi.org/10.1088/1748-9326/aacc7a
- Rufin P., Levers C., Baumann M., Jägermeyr J., Krueger T., Kuemmerle T. & Hostert P. (2018). Global-scale patterns and determinants of cropping frequency in irrigation dam command areas. *Global Environmental Change*, 50, pp 110-122. https://dx.doi.org/10.1016/j.gloenvcha.2018.02.011
- Stürck J., **Levers C.**, van der Zanden E.H., Schulp C.J.E., Verkerk P.J., Kuemmerle T., Helming J., Lotze-Campen H., Tabeau A., Popp A., Schrammeijer E. & Verburg P.H. (2018). Simulating and delineating future land change trajectories across Europe. *Regional Environmental Change*, 18(3), pp 733-749. https://dx.doi.org/10.1007/s10113-015-0876-0
- Levers C., Müller D., Erb K-H., Haberl H., Jepsen M.R., Metzger M.J., Meyfroidt P., Plieninger T., Plutzar C., Stürck J., Verburg P.H., Verkerk P.J. & Kuemmerle T. (2018). Archetypical patterns and trajectories of land systems in Europe. *Regional Environmental Change*, 18(3), pp 715-732. https://dx.doi.org/10.1007/s10113-015-0907-X

2017

- Gerstner K., Levers C., Kuemmerle T., Václavík T., Pereira H.M. & Seppelt R. (2017). Assessing land-use effects on European plant diversity using a biome-specific countryside species-area model. *Diversity and Distributions*, 23(10), pp 1193-1203. https://dx.doi.org/10.1111/ddi.12608
- Tieskens K.F., Schulp C.J.E., **Levers C.**, Lieskovský J., Kuemmerle T., Plieninger T. & Verburg P.H. (2017). Characterizing European cultural landscapes: Accounting for structure, management intensity and value of agricultural and forest landscapes. *Land Use Policy*, 62, pp 29-39. https://dx.doi.org/10.1016/j.landusepol. 2016.12.001

2016

- Levers C., Butsic V., Verburg P.H., Müller D. & Kuemmerle T. (2016). Drivers of changes in agricultural land-use intensity in Europe. *Land Use Policy*, 58, pp 380-393. https://dx.doi.org/10.1016/j.landusepol. 2016.08.013
- Kuemmerle T., Levers C., Erb K-H., Estel S., Jepsen M.R., Müller D., Plutzar C., Stürck J., Verkerk P.J., Verburg P.H. & Reenberg A. (2016). Hotspots of land-use change in Europe. *Environmental Research Letters*, 11(6), 064020. https://dx.doi.org/10.1088/1748-9326/11/6/064020
- Smaliychuk A., Müller D., Prishchepov A.V., **Levers C.**, Kruhlov I. & Kuemmerle T. (2016). Recultivation of abandoned agricultural lands in Ukraine: Patterns and drivers. *Global Environmental Change*, 38, pp 70-81. https://dx.doi.org/10.1016/j.gloenvcha.2016.02.009
- van der Zanden E.H., **Levers C.**, Verburg P.H. & Kuemmerle T. (2016). Representing composition, spatial structure and management intensity of European agricultural landscapes: A new typology. *Landscape and Urban Planning*, 150, pp 36-49. https://dx.doi.org/10.1016/j.landurbplan.2016.02.005
- Estel S., Kuemmerle T., Levers C., Baumann M. & Hostert P. (2016). Mapping cropland-use intensity across Europe using MODIS NDVI time series. *Environmental Research Letters*, 11(2), 024015. https://dx.doi.org/10.1088/1748-9326/11/2/024015

Plutzar C., Kroisleitner C., Haberl H., Fetzel T., Bulgheroni C., Beringer T., Hostert P., Kastner T., Kuemmerle T., Lauk C., **Levers C.**, Lindner M., Moser D., Müller D., Niedertscheider M., Paracchini M-L., Schaphoff S., Verburg P.H., Verkerk P.J. & Erb K-H. (2016). Changes in the spatial patterns of human appropriation of net primary production (HANPP) in Europe 1990-2006. *Regional Environmental Change*, 16(5), pp 1225-1238. https://dx.doi.org/10.1007/s10113-015-0820-3

2015

- Verkerk P.J., **Levers C.**, Kuemmerle T., Lindner M., Valbuena R., Verburg P.H. & Zudin S. (2015). Data from: Mapping wood production in European forests. *Forest Ecology and Management*. https://dx.doi.org/10.5061/dryad.mko67
- 9 Verkerk P.J., **Levers C.**, Kuemmerle T., Lindner M., Valbuena R., Verburg P.H. & Zudin S. (2015). Mapping wood production in European forests. *Forest Ecology and Management*, 357, pp 228-238. https://dx.doi.org/10.1016/j.foreco.2015.08.007
- Kehoe L., Kuemmerle T., Meyer C., Levers C., Václavík T. & Kreft H. (2015). Global patterns of agricultural land-use intensity and vertebrate diversity. *Diversity and Distributions*, 21(11), pp 1308-1318. https://dx.doi.org/10.1111/ddi.12359
- Mouchet M.A., **Levers C.**, Zupan L., Kuemmerle T., Plutzar C., Erb K-H., Lavorel S., Thuiller W. & Haberl H. (2015). Testing the Effectiveness of Environmental Variables to Explain European Terrestrial Vertebrate Species Richness across Biogeographical Scales. *PLoS ONE*, 10(7), e0131924. https://dx.doi.org/10.1371/journal.pone.0131924
- Estel S., Kuemmerle T., Alcántara C., Levers C., Prishchepov A.V. & Hostert P. (2015). Mapping farmland abandonment and recultivation across Europe using MODIS NDVI time series. *Remote Sensing of Environment*, 163, pp 312-325. https://dx.doi.org/10.1016/j.rse.2015.03.028
- Plieninger T., Levers C., Mantel M., Costa A., Schaich H. & Kuemmerle T. (2015). Patterns and Drivers of Scattered Tree Loss in Agricultural Landscapes: Orchard Meadows in Germany (1968-2009). *PLoS ONE*, 10(5), e0126178. https://dx.doi.org/10.1371/journal.pone.0126178

2014

Levers C., Verkerk P.J., Müller D., Verburg P.H., Butsic V., Leitão P.J., Lindner M. & Kuemmerle T. (2014). Drivers of forest harvesting intensity patterns in Europe. *Forest Ecology and Management*, 315, pp 160-172. https://dx.doi.org/10.1016/j.foreco.2013.12.030

2013

- Nützmann G., Levers C. & Lewandowski J. (2013). Coupled groundwater flow and heat transport simulation for estimating transient aquifer-stream exchange at the lowland River Spree (Germany). *Hydrological Processes*, 28(13), pp 4078-4090. https://dx.doi.org/10.1002/hyp.9932
- Kuemmerle T., Erb K-H., Meyfroidt P., Müller D., Verburg P.H., Estel S., Haberl H., Hostert P., Jepsen M.R., Kastner T., Levers C., Lindner M., Plutzar C., Verkerk P.J., van der Zanden E.H. & Reenberg A. (2013). Challenges and opportunities in mapping land use intensity globally. *Current Opinion in Environmental Sustainability*, 5(5), pp 484-493. https://dx.doi.org/10.1016/j.cosust.2013.06.002

2012

Fobil J.N., **Levers C.**, Lakes T., Loag W., Kraemer A. & May J. (2012). Mapping Urban Malaria and Diarrhea Mortality in Accra, Ghana: Evidence of Vulnerabilities and Implications for Urban Health Policy. *Journal of Urban Health*, 89(6), pp 977-991. https://dx.doi.org/10.1007/s11524-012-9702-x

Publications in peer-reviewed monographies

Müller D., Haberl H., Bartels L.E., Baumann M., Beckert M., **Levers C.**, Schierhorn F., Zscheischler J., Havlík P., Hostert P., Mertz O. & Smith P. (2016). Competition for land-based ecosystem services: Trade-offs and synergies. In: *Niewöhner J., Bruns A., Hostert P., Krüger T., Nielsen J.Ø., Haberl H., Lauk C., Lutz J., & Müller D.* (*Eds.*), Land Use Competition: Ecological, Economic and Social Perspectives. Springer, Dordrecht, The Netherlands. pp. 127-147. https://dx.doi.org/10.1007/978-3-319-33628-2_8

Project reports

- Levers C., Tieskens K., Zagaria C., Schulp C.J.E., Verburg P.H. & Kuemmerle T. (2016). Robustness and applicability assessment of land management and policy options under scenario conditions. HERCULES deliverable No. 5.3.
- Levers C., Tieskens K., Schulp C.J.E., Verburg P.H. & Kuemmerle T. (2016). Report and maps of the current distribution of cultural landscapes in Europe and recent changes therein. HERCULES deliverable No. 4.3.
- 3 Kuemmerle T., Stürck J., Levers C., Müller D., Erb K-H., Gingrich S., Jepsen M.R., Kastner T., Verkerk P.J. & Verburg P.H. (2014). Interpretation of scenario results in terms of described and mapped land change trajectories and archetypes. VOLANTE deliverable No. 11.2.
- Kuemmerle T., Levers C., Müller D., Verburg P.H., Stürck J., Erb K-H., Haberl H. & Jepsen M.R. (2014). Maps of syndromes of land system changes in Europe. VOLANTE deliverable No. 3.4.
- Kuemmerle T., Levers C., Müller D., Erb K-H., Plutzar C., Verburg P.H. & Verkerk P.J. (2013). Report on drivers of recent land use transitions in Europe. VOLANTE deliverable No. 3.3.

Other publications

- Levers C. (2016). Understanding spatial patterns of land-system change in Europe. Doctoral thesis, Humboldt-Universität zu Berlin. pp 299. https://edoc.hu-berlin.de/docviews/abstract.php?id=42627
- 5 Lückmann J.M., Levers C. & Kindt A. (2015). Die Sprache der Statistik. Junge Akademie Magazin, 20, p 38.
- Levers C. (2010). Kenya and the Mt. Kenya Region A geographical classification of the physical environment. In: *Dannenberg P. & Nduru G. (2010):* Challenges for export orientated fruits and vegetables farmers in the Mt. Kenya region Experiences of an intercultural student project. Work reports Department of Geography, Humboldt-Universität zu Berlin. Vol. 155, p 24-34.
- Levers C. (2009). Modellierung von Grundwasserströmung und Wärmetransport in einer peri-urbanen Flusstalaue. Master thesis, Humboldt-Universität zu Berlin.
- Baumann M., Grunow B., **Levers C.** & Schierbaum T. (2009). Mikroklimatische Untersuchungen im Linken Talgar-Tal des Tian Shan, Kasachstan. In: *Baumann M., Lentschke J., Munack H. & Schröder H.* (2009). Landschaftsökologie des Hochgebirges (Zailijskij Alatau, Tian Shan, Kasachstan). Work reports Department of Geography, Humboldt-Universität zu Berlin. Vol. 150, p 12-22.
- Levers C. (2006). Untersuchung zum Einfluss von Beleuchtungssystemen auf das Mikroklima von Schauhöhlen am Beispiel der Punkva-Höhle (Tschechische Republik) und der Jewel Cave (USA). Bachelor Thesis, Ruhr-Universität Bochum.

Conference contributions

Presentations

- Sabatini F.M., Burrascano S., Keeton W.S., Levers C., Lindner M., Pötzschner F., Verkerk P.J. & Kuemmerle T. (2017). The last primary forest remnants in Europe: their spatial distribution and determinants. International Union of Forest Research Organization 125th Anniversary Congress, Freiburg, Germany. September 2017. *Oral presentation*.
- Sabatini F.M., Burrascano S., Keeton W.S., **Levers C.**, Lindner M., Pötzschner F., Verkerk P.J. & Kuemmerle T. (2017). Finding the last wild forests: understanding the distribution of primary forest remnants in Europe. 28th International Congress for Conservation Biology, Cartagena, Colombia. July 2017. *Oral presentation*.
- Sabatini F.M., Burrascano S., Keeton W.S., **Levers C.**, Lindner M., Pötzschner F., Verkerk P.J. & Kuemmerle T. (2017). Finding the last wild forests: understanding the distribution of primary forest in Europe. International Association for Vegetation Science Annual Symposium, Palermo, Italy. June 2017. *Oral presentation*.
- Levers C., Schneider M., Prishchepov A.V., Estel S. & Kuemmerle T. (2016). Drivers of agricultural abandonment in Europe. 3rd Global Land Project Open Science Meeting, Beijing, China. October 2016. *Oral presentation*.
- Kuemmerle T., Levers C., Erb K-H., Estel S., Jepsen M.R., Müller D., Plutzar C., Verkerk P.J., Verburg P.H. & Reenberg A. (2016). Hotspots of land-use change in Europe. HERCULES Final Conference, Brussels, Belgium. October 2016. *Oral presentation*.

- Schneider M., Blanchard G., **Levers C.** & Kuemmerle T. (2015). Spatial variation of drivers of agricultural abandonment with spatially boosted models. 30th International Workshop on Statistical Modelling, Linz, Austria. July 2015. *Poster presentation*.
- Schneider M., Blanchard G., **Levers C.** & Kuemmerle T. (2015). Spatial variation of drivers of agricultural abandonment with spatially boosted models. Spatial Statistics 2015: Emerging Patterns, Avignon, France. June 2015. *Poster presentation*.
- Kehoe L., Kuemmerle T., Senf C., Meyer C., Levers C., Václavík T., Gerstner K. & Kreft H. (2015). Global patterns of agricultural land use intensity and biodiversity. International Biogeography Society 7th Biennial Conference, Bayreuth, Germany. January 2015. *Oral presentation*.
- Kehoe L., Kuemmerle T., Meyer C., Levers C. & Kreft H. (2015). Relating Global Agricultural Land Use Intensity and Biodiversity Patterns. Global Land Project Open Science Meeting, Berlin, Germany. March 2014. *Oral presentation*.
- Levers C., Kuemmerle T., Erb K-H., Estel S., Haberl H., Jepsen M.R., Kroisleitner C., Lindner M., Müller D., Plutzar C., Stürck J., Verburg P.H., Verkerk P.J., van der Zanden E.H. & Reenberg A. (2014). Hotspots and Archetypes of Land System Change in Europe. 2nd Global Land Project Open Science Meeting, Berlin, Germany. March 2014. *Oral presentation*.
- Nützmann G., **Levers C.** & Lewandowski J. (2014). Simulating transient aquifer-stream exchange at the lowland River Spree (Germany) with a coupled groundwater flow and heat transport model. Computational Methods in Water Resources, Stuttgart, Germany. June 2014. *Poster presentation*.
- Lindner M., Verkerk P.J., Levers C., Kuemmerle T., Zudin S. & Vilén T. (2013). Improved mapping of forest management effects on carbon storage in European forests. GHG-Europe conference, Antwerp, Belgium. September 2013. *Oral presentation*.
- 9 Verkerk P.J., Levers C., Kuemmerle T., Zudin S. & Lindner M. (2013). Mapping ecosystem services provided by European forests. 6th Annual International ESP conference, Bali, Indonesia. August 2013. *Oral presentation*.
- Levers C., Lakes T. & Kümmerle T. (2012). Social segregation in urban areas an exploratory data analysis using different statistical regression models. 32nd International Geographical Congress, Cologne, Germany. August 2012. *Oral presentation*.
- 7 Estel S., Levers C. & Kümmerle T. (2012). Mapping hotspots of forest disturbance across Europe. IAMO Forum 2012, Halle (Saale), Germany. June 2012. *Oral presentation*.
- 6 Levers C., Müller D., Verkerk P.J. & Kümmerle T. (2012). Identifying drivers of land use change and their importance in Europe: a data mining approach with Boosted Regression Trees. IAMO Forum 2012, Halle (Saale), Germany. June 2012. *Oral presentation*.
- Nützmann G., Levers C. & Lewandowski J. (2010). Modelling of Transient River Aquifer Exchange Using Pressure Head and Heat Measurements: The Hyporheic Zone's Dimension. The XVIII Conference on Computational Methods in Water Resources, Barcelona, Spain. June 2010. *Oral presentation*.
- Levers C., Fobil J., Kraemer A., May J. & Lakes T. (2010). A malaria risk analysis in Accra, Ghana using geographically weighted regression. GI_Forum 2010, Salzburg, Austria. July 2010. *Oral presentation*.
- Levers C., Brückner M. & Lakes T. (2010). Social segregation in Berlin an exploratory data analysis using geographically weighted regression analysis. 13th AGILE International Conference on Geographic Information Science, Guimarães, Portugal. May 2010. Poster presentation.
- Levers C., Grunow B. & Pflitsch A. (2007). Investigation of influences on the microclimate of show caves caused by lighting systems shown at the examples of Punkva Cave (Czech Republic) and Jewel Cave (USA). Symposium on Cave Climatology, Wind Cave, Hot Springs, South Dakota, USA. March 2007. *Oral presentation*.
- Levers C., Grunow B. & Pflitsch A. (2006). Untersuchung zum Einfluss von Beleuchtungssystemen auf das Mikroklima von Schauhöhlen am Beispiel der Punkva-Höhle (Tschechische Republik) und der Jewel Cave (USA). 25th annual meeting AK-Klima, Passau, Germany. November 2006. *Poster presentation*.

Chaired sessions

Northern Eurasia in a telecoupled world: agricultural potentials and ecosystem tradeoffs (co-chair with F. Schierhorn & A.V. Prishchepov). 3rd Global Land Project - Open Science Meeting, Beijing, China. October

2016.

Competition for land-based ecosystem services at multiple geographic scales (co-chair with M. Baumann & H. Haberl). 3rd Global Land Project - Open Science Meeting, Beijing, China. October 2016.

Conference, workshop, and training course attendances

25th annual meeting AK-Klima, Passau, Germany.

Conferences

| 2016 | 3rd Global Land Project - Open Science Meeting, Beijing, China. |
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| 2016 | HERCULES Final Conference, Brussels, Belgium. |
| 2014 | 2nd Global Land Project - Open Science Meeting, Berlin, Germany. |
| 2012 | 32rd IGC, Cologne, Germany. |
| 2012 | IAMO Forum 2012, Halle (Saale), Germany. |
| 2012 | 1st ResearchDay of the Department of Geography, Humboldt-Universität zu Berlin, Germany (Coorganizer). |
| 2010 | GI_Forum 2010, Salzburg, Austria. |
| 2010 | 13th AGILE International Conference on Geographic Information Science, Guimarães, Portugal. |
| 2007 | Symposium on Cave Climatology, Wind Cave, Hot Springs, South Dakota, USA. |

Workshops

2006

| 2017 | European Environment Agency (EEA) workshop on generating an analytical framework for land systems assessment, Copenhagen, Denmark. |
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| 2017 | PASANOA workshop on mapping land systems in the Gran Chaco ecoregion, Berlin, Germany. |
| 2017 | European Environment Agency (EEA) workshop on mapping land degradation (invited expert), Copenhagen, Denmark. |
| 2015 | Interdisciplinary workshop on causality hosted by the Junge Akademie, Ohlstadt, Germany. |
| 2014 | VOLANTE workshop on archetypes of land use change in Europe, Berlin, Germany. |
| 2014 | 2nd VOLANTE workshop on identifying pathways to land use visions in Europe, Barcelona, Spain. |
| 2013 | VOLANTE workshop on regime shifts, hotspots, and archetypes of land use change in Europe, Vienna, Austria. |
| 2013 | 1st VOLANTE workshop on identifying pathways to land use visions in Europe, The Hague, The Netherlands. |
| 2012 | VOLANTE workshop on methodology development to map hotspots of land use change across Europe, Berlin, Germany. |
| 2012 | VOLANTE & GHG Europe workshop on forest management, Ede, The Netherlands. |
| 2011 | VOLANTE & GHG Europe workshop on mapping forest distubances and forest intensity indicators across Europe, Berlin, Germany. |

Summer/Winter schools

| 2014 | KOSMOS Summer University FutureLand: Land use competition, Berlin, Germany. |
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| 2009 | Summer School Megacities: Health, Geomatics and Climate Change, Bielefeld, Germany. |

International Working Experience

| 2015/05 | Visiting scientist at the Mediterranean Regional Office of the European Forest Institute (EFIMED), St. Antoni M. Claret 167, 08025 Barcelona, Spain. |
|---------|--|
| 2013/02 | Visiting scientist at the European Forest Institute (EFI), Torikatu 34, 80100 Joensuu, Finland. |

TEACHING EXPERIENCE

Thesis supervision

Pötzschner, F. (2016). Post-release movement pattern analysis of a brown bear in the Lesser Caucasus. Bachelor thesis, Humboldt-Universität zu Berlin, Germany.

Graduate level

| 2016 | Invited lecture and seminar on spatial modelling and spatial statistics (IAMO Doctorate Programme, |
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| | Halle, Germany, 8 h) |

2012 – 2014 Invited lecture and seminar on spatial statistics and ESDA (IAMO Doctorate Programme, Halle, Germany, 3 h)

Master level

| 2014 – 2018 | Quantitative methods (Humboldt-Universität zu Berlin, Germany, seminar, final exam project su- |
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| | pervision, winter term) |

- 2014 2016 Ecosystem Services and Biodiversity seminar on spatial clustering techniques (Humboldt-Universität zu Berlin, Germany, seminar, 3h, summer term)
- 2012 & 2014 Land System Science seminar on land use intensity (Humboldt-Universität zu Berlin, Germany, seminar, 3 h, winter term)
- Land System Science literature seminar on land use change processes, impacts, drivers, and actors (Humboldt-Universität zu Berlin, Germany, seminar, 3 h, winter term)
- *Advanced methods of Geoinformation processing (Humboldt-Universität zu Berlin, Germany, seminar, 32 h, winter term)
- Advanced methods of Geoinformation processing (Humboldt-Universität zu Berlin, Germany, substitute lecture on spatial modelling and spatial analysis, 6 h, winter term)
- Mathematics for Geographers (Humboldt-Universität zu Berlin, Germany, lecture and seminar, 6 h, winter term)

Bachelor level

| 2018 | Project seminar Carpathians - field trip (1 week) and 2 seminars (8h) on data analysis and visuali- |
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| | sation (Humboldt-Universität zu Berlin, Germany, summer term) |

- 2016 Project seminar Carpathians seminar on sampling techniques and design (Humboldt-Universität zu Berlin, Germany, seminar, 3 h, summer term)
- *Applied Conservation Biology using R (Humboldt-Universität zu Berlin, Germany, module, 30 h, winter term)
- *Spatial analysis and geostatistics (Humboldt-Universität zu Berlin, Germany, seminar, 28 h, winter term)
- 2011 2018 *Statistics I (Humboldt-Universität zu Berlin, Germany, seminar, 28 h, winter term)
- *Introduction to Geoinformation processing (Humboldt-Universität zu Berlin, Germany, seminar, 30 h, summer term)
- 2010 Ruhr Area and Geomatics (Humboldt-Universität zu Berlin, Germany, study trip, 4 days)
- *Applied Geomatics (Humboldt-Universität zu Berlin, Germany, seminar, 28 h, summer term)

Student evaluations of full-term courses taught as the principal or co-lecturer (marked with an asterisk) were consistently above average

INTERNSHIPS

| 2008/03 - 2008/04 | Department of Ecohydrology, Leibniz-Institute of Freshwater Ecology and Inland Fisheries, Berlin, Germany. |
|-------------------|--|
| 2006/10 - 2007/03 | Department of Geography (Cartography), Ruhr-Universität Bochum, Germany. |
| 2005/08 - 2005/09 | PCG Project Consult GmbH, Essen, Germany. |

GRANTS, AWARDS, AND FELLOWSHIPS

| 2018 | UBC Killam Postdoctoral Research Fellow; honorary (108,000 CAN\$). |
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| 2018 | Marie Skłodowska-Curie Actions - Global Fellowship within European Union's Horizon 2020 research and innovation programme (225,352 €). |
| 2016 | Travel grant by the German Academic Exchange Service to attend the 3rd Global Land Project - Open Science Meeting, Beijing, China (1,500 €). |
| 2010 | Nomination for the Humboldt-Preis 2010, Humboldt-Universität zu Berlin, Germany. |
| 2010 | 2nd place in the Best Poster Award at the 13th AGILE International Conference on Geographic Information Science, Guimarães, Portugal. |
| 2010 | ESRI sponsors grant for researchers to attend the 13th AGILE International Conference on Geographic Information Science, Guimarães, Portugal (550 €). |
| 2009 | Best Master graduation, year 2009, Humboldt-Universität zu Berlin, Germany. |
| 2007 | Travel grant by the Ruth und Gert Massenberg foundation to attend the Symposium on Cave Climatology at Wind Cave, Hot Springs, South Dakota, USA (500 €). |
| | 5 grants totalling approx. 295,000 €. |

Professional services

| Reviewer | Nature Sustainability, Global Environmental Change, Environmental Research Letters, Agricultural Systems, Regional Environmental Change, European Journal of Forest Reserach, Land, Journal of Land Use Science, Journal of Biogeography, Ecology and Society, Conservation Letters, Land Use Policy, Science of the Total Environment, Remote Sensing in Earth Systems Science |
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| | currently 17 reviews for 14 journals |
| Panels | Member of the Panel of Experts for the project "Promoting and shaping the EU Restoration Agenda through mobilisation of rewilding principles to create a coherent Ecological Network in Europe" (German Centre for Integrative Biodiversity Research, Rewilding Europe, WWF European Policy Office, BirdLife Europe and European Environmental Bureau) (2017 – ongoing). |
| Committees | Member of the promotion committee for Cornelius Senf. Humboldt-Universität zu Berlin, Germany |

Committees Member of the promotion committee for Cornelius Senf, Humboldt-Universität zu Berlin, Germany (2016).

Member of the promotion committee for María Piquer-Rodriguez, Humboldt-Universität zu Berlin, Germany (2017).

Member of the promotion committee for Victor Baranov, Humboldt-Universität zu Berlin, Germany (2017).

Administration Elected member of the institutional board of the Department of Geography, Humboldt-Universität zu Berlin, Germany (2012 – 2014 & 2016 – 2018).

Personal skills and competences

Languages

German Native language

English Proficient user (understanding, speaking, writing)

Spanish Independent user (understanding); Basic user (writing, speaking)

Qualifications

German driving licence (classes A1, A, B, M, L, T/S)

PADI certified Advanced Open Water Diver

Software skills

very good command R, ESRI ArcGIS, Microsoft Office suite, EndNote, OpenGeoDa

good command QGIS, LaTeX/BibTeX, SPSS, MODFLOW, SUTRA basic command Python, Surfer, Grapher, Google Earth Engine

Miscellaneous

| 2014 – 2017 | Community service at the neighborhood management programme "Mariannenkiez", Berlin, Germany. |
|-------------------|---|
| 2010/10 - 2011/04 | Long term travel through Central and South America incl. 2.5 weeks one-on-one Spanish course at San Pedro Spanish School, San Pedro La Laguna, Guatemala. |
| 2007/03 - 2007/06 | Volunteering at American Conservation Experience (ACE) in the field of nature conservation and restoration. |
| Interests | Travelling, Hiking/Trekking, Sports |

Berlin, September 11, 2018

Christian Levers