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Dept of Physical Geography and Ecosystem Science
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Qualifications

Geoecology, PhD, University of Bayreuth
2009 Mar 1 → 2014 Nov 30

Geoecology, Diploma, University of Bayreuth
2003 Oct 1 → 2009 Feb 28

Employment

Research engineer

Centre for Environmental and Climate Science (CEC)
Lund University
Lund, Sweden
2015 Sept 21 → present

Research engineer

Dept of Physical Geography and Ecosystem Science
Lund University
Lund, Sweden
2015 Sept 21 → present

Researcher

BECC: Biodiversity and Ecosystem services in a Changing Climate
Lund University
Lund, Sweden
2023 May 17 → present

Research output

Widespread Pesticide Distribution in the European Atmosphere Questions their Degradability in Air

Lammel, G. & et al., 2024 Feb, In: Environmental Science and Technology. 58, 7, p. 3342–3352 11 p.

European Obspack compilation of atmospheric carbon dioxide data from ICOS and non-ICOS European stations for the period 1972-2023; obspack_co2_466_GLOBALVIEWplus_v8.0_2023-04-26

ICOS Ri, 2023, ICOS ERIC - Carbon Portal.

High-resolution inverse modelling of European CH₄ emissions using the novel FLEXPART-COSMO TM5 4DVAR inverse modelling system

Bergamaschi, P., Segers, A., Brunner, D., Haussaire, J. M., Henne, S., Ramonet, M., Arnold, T., Biermann, T., Chen, H., Conil, S., Delmotte, M., Forster, G., Frumau, A., Kubistin, D., Lan, X., Leuenberger, M., Lindauer, M., Lopez, M., Manca, G. & Müller-Williams, J. & 6 others, O'Doherty, S., Scheeren, B., Steinbacher, M., Trisolino, P., Vítková, G. & Yver Kwok,

C., 2022 Oct 17, In: Atmospheric Chemistry and Physics. 22, 20, p. 13243-13268 26 p.

Method comparison of indirect assessments of understory leaf area index (LAI_u): A case study across the extended network of ICOS forest ecosystem sites in Europe

George, J. P., Yang, W., Kobayashi, H., Biermann, T., Carrara, A., Cremonese, E., Cuntz, M., Fares, S., Gerosa, G., Grünwald, T., Hase, N., Heliasz, M., Ibrom, A., Knohl, A., Kruijt, B., Lange, H., Limousin, J. M., Loustau, D., Lukeš, P. & Marzuoli, R. & 10 others, Mölder, M., Montagnani, L., Neiryneck, J., Peichl, M., Rebmann, C., Schmidt, M., Serrano, F. R. L., Soudani, K., Vincke, C. & Pisek, J., 2021 Sept, In: Ecological Indicators. 128, 107841.

Retrieval and validation of forest background reflectivity from daily Moderate Resolution Imaging Spectroradiometer (MODIS) bidirectional reflectance distribution function (BRDF) data across European forests

Pisek, J., Erb, A., Korhonen, L., Biermann, T., Carrara, A., Cremonese, E., Cuntz, M., Fares, S., Gerosa, G., Grünwald, T., Hase, N., Heliasz, M., Ibrom, A., Knohl, A., Kobler, J., Kruijt, B., Lange, H., Leppänen, L., Limousin, J.-M. & Ramon Lopez Serrano, F. & 16 others, Loustau, D., Lukeš, P., Lundin, L., Marzuoli, R., Mölder, M., Montagnani, L., Neiryneck, J., Peichl, M., Rebmann, C., Rubio, E., Santos-Reis, M., Schaaf, C., Schmidt, M., Simioni, G., Soudani, K. & Vincke, C., 2021 Jan 27, In: Biogeosciences. 18, 2, p. 621-635 15 p., 34.

Evaluation and optimization of ICOS atmosphere station data as part of the labeling process

Yver-kwok, C., Philippon, C., Bergamaschi, P., Biermann, T., Calzolari, F., Chen, H., Conil, S., Cristofanelli, P., Delmotte, M., Hatakka, J., Heliasz, M., Hermansen, O., Komínková, K., Kubistin, D., Kumpp, N., Laurent, O., Laurila, T., Lehner, I., Levula, J. & Lindauer, M. & 15 others, Lopez, M., Mammarella, I., Manca, G., Marklund, P., Metzger, J.-M., Mölder, M., Platt, S. M., Ramonet, M., Rivier, L., Scheeren, B., Sha, M. K., Smith, P., Steinbacher, M., Vítková, G. & Wyss, S., 2021 Jan 5, In: Atmospheric Measurement Techniques. 14, 1, p. 89-116

Effects of drought and meteorological forcing on carbon and water fluxes in Nordic forests during the dry summer of 2018

Lindroth, A., Holst, J., Linderson, M.-L., Aurela, M., Biermann, T., Heliasz, M., Chi, J., Ibrom, A., Kolari, P., Klemetsson, L., Krasnova, A., Laurila, T., Lehner, I., Lohila, A., Mammarella, I., Mölder, M., Löfvenius, M. O., Peichl, M., Pilegaard, K. & Soosar, K. & 4 others, Vesala, T., Vestin, P., Weslien, P. & Nilsson, M., 2020 Sept 7, In: Philosophical Transactions of the Royal Society B: Biological Sciences. 375, 1810, p. 20190516

The Kobresia pygmaea ecosystem of the Tibetan highlands – Origin, functioning and degradation of the world's largest pastoral alpine ecosystem: Kobresia pastures of Tibet

Miehe, G., Schleuss, P.-M., Seeber, E., Babel, W., Biermann, T., Braendle, M., Chen, F., Coners, H., Foken, T., Gerken, T., Graf, H.-F., Guggenberger, G., Hafner, S., Holzapfel, M., Ingrisich, J., Kuzyakov, Y., Lai, Z., Lehnert, L., Leuschner, C. & Li, X. & 16 others, Liu, J., Liu, S., Ma, Y., Miehe, S., Mosbrugger, V., Noltie, H. J., Schmidt, J., Spielvogel, S., Unteregelsbacher, S., Wang, Y., Willinghöfer, S., Xu, X., Yang, Y., Zhang, S., Opgenoorth, L. & Wesche, K., 2019 Jan 15, In: Science of the Total Environment. 648, p. 754-771

Methane and carbon dioxide fluxes over a lake: Comparison between eddy covariance, floating chambers and boundary layer method

Erkkilä, K. M., Ojala, A., Bastviken, D., Biermann, T., Heiskanen, J., Lindroth, A., Peltola, O., Rantakari, M., Vesala, T. & Mammarella, I., 2018 Jan 19, In: Biogeosciences. 15, 2, p. 429-445 17 p.

Effects of low thinning on carbon dioxide fluxes in a mixed hemiboreal forest

Lindroth, A., Holst, J., Heliasz, M., Vestin, P., Lagergren, F., Biermann, T., Cai, Z. & Mölder, M., 2018, In: Agricultural and Forest Meteorology. 262, p. 59-70

Evapotranspiration and water balance of high-elevation grassland on the Tibetan Plateau

Coners, H., Babel, W., Willinghöfer, S., Biermann, T., Köhler, L., Seeber, E., Thomas, F., Ma, Y., Yang, Y., Miehe, G. & Leuschner, C., 2016, In: Journal of Hydrology. 533, p. 557-566

Carbon pools and fluxes in a Tibetan alpine Kobresia pygmaea pasture partitioned by coupled eddy-covariance measurements and ¹³C₂ pulse labeling

Ingrisich, J., Biermann, T., Seeber, E., Leipold, T., Li, M., Ma, Y., Xu, X., Miehe, G., Guggenberger, G., Foken, T. & Kuzyakov, Y., 2015, In: Science of the Total Environment. 505, p. 1213-1224

Eddy-covariance measurements as a tool for ecological and hydrological studies on the Tibetan Plateau
Biermann, T., 2014 Jul 1, Bayreuth. 163 p.

Pasture degradation modifies the water and carbon cycles of the Tibetan highlands

Babel, W., Biermann, T., Coners, H., Falge, E., Seeber, E., Schleuß, P. M., Gerken, T., Leonbacher, J., Leipold, T., Willinghöfer, S., Becher, L., Spielvogel, S., Guggenberger, G., Schuetzenmeister, K., Shibistova, O., Hafner, S., Li, X., Xu, X., Yang, Y. & Ma, Y. & 6 others, Wesche, K., Graf, H.-F., Leuschner, C., Kuzyakov, Y., Miede, G. & Foken, T., 2014, In: Biogeosciences. 11, 23, p. 6633-6656

Turbulent flux observations and modelling over a shallow lake and a wet grassland in the Nam Co basin, Tibetan Plateau
Biermann, T., Babel, W., Ma, W., Chen, X., Thiem, E., Ma, Y. & Foken, T., 2014, In: Theoretical and Applied Climatology. 116, 1-2, p. 301-316

A modelling investigation into lake-breeze development and convection triggering in the Nam Co Lake basin, Tibetan Plateau

Gerken, T., Biermann, T., Babel, W., Herzog, M., Ma, Y., Foken, T. & Graf, H. F., 2013 Aug 25, In: Theoretical and Applied Climatology. 117, 1, p. 149-167 19 p.

Coupling processes and exchange of energy and reactive and non-reactive trace gases at a forest site - Results of the EGER experiment

Foken, T., Meixner, F. X., Falge, E., Zetzsch, C., Serafimovich, A., Bargsten, A., Behrendt, T., Biermann, T., Breuninger, C., Dix, S., Gerken, T., Hunner, M., Lehmann-Pape, L., Hens, K., Jocher, G., Kesselmeier, J., Lüers, J., Moravek, A., Plake, D. & Riederer, M. & 10 others, Rütz, F., Scheibe, M., Siebicke, L., Sörgel, M., Staudt, K., Trebs, I., Tsokankunku, A., Welling, M., Wolff, V. & Zhu, Z., 2012, In: Atmospheric Chemistry and Physics. 12, 4, p. 1923-1950 28 p.

Turbulent flux modelling with a simple 2-layer soil model and extrapolated surface temperature applied at Nam Co Lake basin on the Tibetan Plateau

Gerken, T., Babel, W., Hoffmann, A., Biermann, T., Herzog, M., Friend, A. D., Li, M., Ma, Y., Foken, T. & Graf, H. F., 2012, In: Hydrology and Earth System Sciences. 16, 4, p. 1095-1110 16 p.

Projects

PERENNIAL: Is there a PERENNIAL future of agriculture?

Olsson, L. (PI), Andersson, E. (Researcher), Carton, W. (Researcher), Schüller, S. (Research student), Kardum Smith, C. (Administrator), Ardö, J. (Researcher), Biermann, T. (Research engineer), Gustafson, A. (Researcher), Olin, S. (Researcher), Tagesson, T. (Researcher), Widengren, V. (Research student), Vestin, P. (Researcher), Voss, A.-K. (Research student), Crews, T. (Researcher), Streit Krug, A. (Researcher), Westerbergh, A. (Researcher), David, C. (Researcher) & Rey, S. (Researcher)
2024/04/01 → 2028/05/31

Optimization of carbon uptake in south Sweden's spruce forests

Lindroth, A. (Researcher), Vestin, P. (Researcher), Ström, L. (Researcher), Biermann, T. (Researcher), Edvardsson, J. (Researcher), Jaakkola, E. (Researcher) & Kornacher, P. (Research assistant)
2024/01/01 → 2026/12/31

Resilient Ecosystems of Sweden: Promoting Sustainability through Continuous Cover Forestry and Wetland Rewetting

Tagesson, T. (PI), Biermann, T. (Researcher), Jamali, S. (Researcher) & Horion, S. (Researcher)
FORMAS, The Swedish Research Council for Environment, Agricultural Sciences and Spatial Planning
2024/01/01 → 2026/12/31

Towards more sustainable forest management - Climate mitigation potential of Fennoscandian forests under different forest management regimes

Vestin, P. (Researcher), Mölder, M. (Researcher), Biermann, T. (Researcher) & Launiainen, S. (Researcher)
2022/04/01 → 2025/03/31