

# Curriculum Vitæ

## Dr Benjamin David Stocker

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<https://stineb.github.io>

Updated 25 June 2019



## Key achievements

- Developed a novel machine learning-based method to quantify soil moisture effects on vegetation productivity (Stocker et al., 2018, *New Phytologist*) and assessed impacts of soil moisture stress on productivity and its variability across scales (Stocker et al., 2019, *Nature Geoscience*).
- Provided the first consistent quantification of multiple climate feedbacks from the terrestrial biosphere using a coupled Earth System Model (Stocker et al., 2013, *Nature Climate Change*).
- Developed the first dynamic global model to simulate the distribution of peatlands and their effect on the carbon cycle under a changing climate (Stocker et al., 2014, *Geosci. Model Dev.*). This model was applied for the first transient simulation of global peatland after the Last Glacial Maximum (Stocker et al., 2017, *PNAS*).

## Current position and research foci

### April 2019 – July 2019

Temporary Researcher with Prof. Robert Jackson at the Department of Earth System Science, Stanford University, USA

- Quantifying and predicting variations in plant-available water storage across regions and climates.

### March 2019 – February 2020

Regular research staff with Prof. Josep Peñuelas at Global Ecology Unit, CREAF-CSIC-UAB, Barcelona, Spain

## Education

### Nov. 2009- Ph.D. Climate Sciences at Climate- and Environmental Physics,

Dec. 2013 University of Bern,

*Climate Forcings and Feedbacks from the Terrestrial Biosphere – From Greenhouse-Gas Emissions to Anthropogenic Land Use Change*

Supervised by Prof. Fortunat Joos

Date obtained: 13. Dec. 2013

### Sep. 2007- M.Sc. Climate Sciences at Climate- and Environmental Physics,

Oct. 2009 University of Bern,

*Transient Simulations of Land Use Change in the Holocene – Separating the Human Impact from Natural Drivers of the Carbon Cycle*

Supervised by Prof. Fortunat Joos

Date obtained: 16. Nov. 2009

**Jun. 2006** **Undergraduate in Geography** (120 ECTS) with a Minor (60 ECTS) in **Physics**, and a complementary (15 ECTS) in **Ecology**, University of Bern

## Previous employment

- Mar. 2017-** Marie Skłodowska-Curie Fellow at the Ecological and Forestry Applications  
**Feb. 2019** Research Centre (CREAF), Barcelona, Spain, supervised by Prof. Josep Peñuelas
- Investigating nutrient and water limitation effects on ecosystem functioning, with a focus on carbon assimilation, allocation, and growth.
  - Model development for the representation of terrestrial vegetation and biogeochemistry and model-data integration (<https://stineb.github.io/>)
- Sep. 2017-** Postdoctoral Research Associate with Prof. S. Seneviratne at the Institute for  
**Feb. 2018** Atmospheric and Climate Science, ETH Zürich, Switzerland
- Developing a machine learning-based method for the identification of soil moisture limitation on ecosystem productivity from Eddy covariance flux data
- Mar. 2015-** Postdoctoral Research Fellow, funded by Early Postdoc.Mobility by the Swiss  
**Sep. 2016** National Science Foundation, with Prof. I. C. Prentice at the Department of Life Sciences, Imperial College London, U.K.
- Mar. 2014-** Postdoctoral Researcher with Prof. I. C. Prentice at the Department of Life  
**Feb. 2015** Sciences, Imperial College London, U.K.
- Developing methods for simulating carbon-nitrogen cycle interactions
- Jan.-Feb. 2014** Postdoctoral Research Assistant at Climate- and Environmental Physics, University of Bern.
- Simulating land use effects in the coupled Earth system.
- Mar.-Jun. 2011** Visiting Scholar at Macquarie University, Sydney, Australia, Invitation and supervision by Prof. Colin Prentice
- Adopted a nitrogen module within the LPX global vegetation model
- Jan.-Jun. 2007** Internship at FirstClimate, Zürich, private company developing climate change mitigation projects
- Jan.-Jun. 2006** Research assistant, Centre for Development and Environment, development of a GIS-based database for FAO statistics

## Awards and fellowships

- **Eccellenza Professorial Fellowship**, granted by the Swiss National Science Foundation, 60 months starting in 2020, total 1.8 mio. CHF (approx. 1.6 mio. EUR)
- **Marie Skłodowska-Curie Individual Fellowship**, 24 months, granted by ERC, scheduled starting date: March 2017, project number H2020-MSCA-IF-2015-701329 FIBER, 158,122 EUR (approx. 181,000 CHF)
- **Offered Incoming PEGASUS Fellowship**, granted by the Flemish Science Foundation (FWO), 36 months, July 2016. Not accepted due to acceptance of the ERC Marie Skłodowska-Curie Individual Fellowship.
- **Early Postdoc.Mobility scholarship**, granted by the Swiss National Science Foundation, 18 months starting in March 2015, total 62,750 EUR (72,000 CHF).
- **Faculty prize** for best Master's thesis at the Physics Institute, University of Bern, obtained Feb. 2010

- **Travel grant** for early career scientists for participation at the XIX INQUA Congress in Nagoya (60,000 JPY – approx. 1500 CHF)
- **Travel grant** for a Short Term Science Mission, funded by EU the ClimMani Cost Action ES1308 (ca. 1000 CHF)
- **Erasmus** scholarship from the European Union (ca. 1000 CHF)

## Teaching and supervision

- **Lecturing Introduction to the Carbon Cycle** (MRes in Ecosystem and Environmental Change, Imperial College London), based on own teaching material and exercise
- **Co-supervision of graduate student** Fabian Feissli, Physics, University of Bern
  - Close collaboration on the development of an innovative method to simulate land use transitions within the LPX Dynamic Global Vegetation model, led by Prof. F. Joos
- **Co-supervision of undergraduate student** Guan Jie Low, Biology, Imperial College
  - Investigation of past atmospheric N<sub>2</sub>O records, led by Prof. I.C. Prentice
- **Teaching assistant** at the Physics Institute, University of Bern, Switzerland
  - *Introduction to Carbon Cycle* by Prof. F. Joos (spring 2012, autumn 2013)
  - *Introduction to Climate- and Environmental Physics* (autumn 2010, autumn 2012)
  - *Physics Lab* (spring 2013)
  - *Climate Modelling and Introduction to Carbon Cycle*, translation of lecture notes from German to English
- **Author of a problem series** for *Introduction to the Carbon Cycle*, University of Berne
  - Designed problems and lead exercises for programming in R with a focus on the global carbon cycle

## Professional activities and panel memberships

- **Contributing Author to IPCC AR5, WGI, Chapter 6 *Carbon and other Biogeochemical Cycles*, and IPCC AR5, WGIII**
- **Contributor to the Global Carbon Project**, years 2013, 2014, 2015, 2016, and 2017 (<http://www.globalcarbonproject.org/carbonbudget>)
  - Co-authoring annual summary of the state-of-the-art of the global carbon balance and CO<sub>2</sub> emission estimates
  - Providing simulation results of global CO<sub>2</sub> emissions from land use change
- **Review Editor** for *Forest Growth - from trees to ecosystems*, a specialty of *Frontiers in Forests and Global Change*
- **Session convener:**
  - EGU 2019, Vienna: *Terrestrial ecosystem responses to global change: integrating experiments and models to understand carbon, nutrient, and water cycling*, and *Scaling terrestrial ecosystem carbon and water response from leaf to continent with observations and simulations*
  - *SIBECOL 2019 (First conference of the Iberian Ecological Society), Barcelona: Predicting the response of carbon, nutrient and water to global change: Where theory, data and models meet*
  - EGU 2018, Vienna: *Terrestrial ecosystem responses to global change: integrating carbon, nutrient, and water cycles from experiments and models*
  - PAGES OSM 2017, Zaragoza: *Understanding past variations in atmospheric greenhouse gases to constrain future feedbacks in the Earth system*
  - INQUA 2015, Nagoya: *Using palaeo-environmental data to quantify climate feedbacks*
- **Ph.D. jury member:** Dr. Marcos Fernández-Martínez, UAB Barcelona, Spain (22.1.2016)
- **Workshop convener:**
  - *Terrestrial nitrogen cycling in Earth system models revisited*, 2.-5.2.2016

- *Palaeoclimate experiments to evaluate the impact of LULC on climate and the carbon cycle: a joint co-design workshop of the PAGES LandCover6ka WG and the Palaeoclimate Modelling Intercomparison Project, 18.-20.9.2018*
- **External reviewer for ERC Consolidator Grant Call 2018**
- **Completed peer reviews** for journals (total: 30): *Nature* (3), *Nature Geoscience* (4), *Nature Climate Change* (1), *New Phytologist* (2), *Global Change Biology* (1), *Geoscientific Model Development* (4), *Biogeosciences* (8), *Journal of Climate* (1), *Earth System Dynamics* (1), *Environmental Research Letters* (1), *Geophysical Research Letters* (1), *Global Biogeochemical Cycles* (1), *Earth and Planetary Science Letters* (1), *Journal of Geophysical Research – Biogeosciences* (1) [see also [publons.com/a/1186022/](https://publons.com/a/1186022/)]

## Invited seminars and keynotes

- June 2019** “Soil moisture controls on C cycle variability and drought impacts across scales”, Climate and Ecosystem Sciences Division Seminar, Lawrence Berkeley National Lab, Berkeley, USA, **invited seminar**
- May 2019** “Soil moisture controls on C cycle variability and drought impacts across scales”, Lunch Seminar, Department of Global Ecology, Carnegie Institution for Science, Stanford, **invited seminar**
- May 2018** “Towards a cost-based approach to understand and model nutrient limitation in terrestrial ecosystems”, INRA Bordeaux, **invited seminar**
- Oct. 2017** “Using data from ecosystem manipulation experiments to calibrate and validate (improve) models”, ClimMani Cost Action Final Conference, Utrecht, **invited keynote**
- Jun. 2017** “Trade-offs and optimality principles to guide the development of a next-generation vegetation model?” IPSL – LSCE, Paris, **invited seminar**
- May 2016** Large CO<sub>2</sub> emissions from preindustrial land use change – Does the carbon budget add up? University of Cambridge, **invited seminar**
- Jan. 2016** “Optimal plant carbon allocation implies a biological control on nitrogen availability”, PLECO, University of Antwerp, **invited seminar**
- Jun. 2015** “Preindustrial human impacts on the carbon cycle”, University of Reading, **invited seminar**
- Jan. 2015** “Preindustrial human impacts on the carbon cycle”, University College London, **invited seminar**
- Sep. 2014** “Spatio-temporal dynamics of global peatland extent and carbon stocks as simulated for the past twenty thousand years”, MPI Hamburg, **invited seminar**

## Conference and workshop contributions

- Stocker B. D.** (2017) *Using data from ecosystem manipulation experiments to calibrate and validate (improve) models*, ClimMani Cost Action Final Conference, Utrecht, Netherlands, 9.10.2017, **invited keynote**
- Stocker B. D.** (2017) *Trade-offs and optimality principles to guide the development of a next-generation vegetation model?* IPSL – LSCE, Paris, France, 22.6.2017, **invited seminar**
- Stocker B. D.** (2017) Past2Future Workshop, organised by Prof. Sandy Harrison, Reading, UK, 4.-6.7.2017, **workshop contribution**

**Stocker B. D.** (2017) *Evaluating revised past landuse change scenarios within carbon cycle constraints - a roadmap for including PAGES Landcover6K products for model-intercomparison*, 1st PMIP4 Conference, Stockholm, Sweden, 27.9.2017, **conference contribution, oral**

**Stocker B. D.,** Jakob Zscheischler, Trevor F. Keenan, I. Colin Prentice, Josep Peñuelas, Sonia Seneviratne (2017) *Soil moisture effects are underestimated by global GPP datasets*, 10th International Carbon Dioxide Conference, Interlaken, Switzerland, 21.-25.8.2017, **conference contribution, poster**

**Stocker B. D.** (2018) *Towards a cost-based approach to understand and model nutrient limitation in terrestrial ecosystems*, INRA Bordeaux, France, 23.5.2018, **invited seminar.**

**Stocker B. D.,** Jakob Zscheischler, Trevor F. Keenan, I. Colin Prentice, Josep Peñuelas, Sonia Seneviratne (2018) *Satellite observations underestimate the impact of drought on terrestrial primary productivity*, European Geosciences Union, Vienna, Austria, 4.2018, **conference contribution, oral**

**Stocker B. D.,** Jakob Zscheischler, Trevor F. Keenan, I. Colin Prentice, Josep Peñuelas, Sonia Seneviratne (2018) *Soil moisture controls on C cycle variability and drought impacts across scales*, American Geosciences Union, Washington, USA, 10.-14.12.2018, **conference contribution, oral**

**Stocker B. D.,** Sara Vicca, César Terrer-Moreno, Kevin Van Sundert, Josep Peñuelas, Colin Prentice (2019) *Does flexible carbon allocation relieve nitrogen limitation? Theory and observations for a resource economics paradigm to model carbon-nitrogen cycle interactions in terrestrial ecosystems*, European Geosciences Union, Vienna, Austria, 4.2019, **conference contribution, oral**

## Publications in peer-reviewed scientific journals

I am the author of **36 publications** in journals included in the Web of Science, appearing as a first author in 7 publications. Seven of my publications are in top-ranking journals (*Science*, *Nature*, *PNAS*, *Nature Clim. Change*, *Nature Geosci.*). I have accumulated **2715 citations** and have a **h-index of 18** (Web of Science, 18.2.2019). I have 30 publications without my PhD promoters.

- 2019 Stocker, B. D.**, Zscheischler, J., Keenan, T. F., Prentice, I. C., Seneviratne, S. I., and Peñuelas, J.: Drought impacts on terrestrial primary production underestimated by satellite monitoring, *Nature Geoscience*, 12, 264–270, doi:10.1038/s41561-019-0318-6, URL <https://doi.org/10.1038/s41561-019-0318-6>, 2019.
- I conducted the analysis, developed the model, and wrote the paper.
- Fernandez-Martinez, M., Yu, R., Gamon, J., Hmimina, G., Filella, I., Balzarolo, M., **Stocker, B.**, and Peñuelas, J.: Monitoring Spatial and Temporal Variabilities of Gross Primary Production Using MAIAC MODIS Data, *Remote Sensing*, 11, doi: 10.3390/rs11070874, URL <http://www.mdpi.com/2072-4292/11/7/874>, 2019.
- 2018 Stocker, B. D.**, Zscheischler, J., Keenan, T. F., Prentice, I. C., Peñuelas, J. and Seneviratne, S. I. (2018), Quantifying soil moisture impacts on light use efficiency across biomes. *New Phytologist*, 218: 1430-1449. doi:10.1111/nph.15123
- I developed the method, conducted the analysis and wrote the paper.
  - Link: <https://nph.onlinelibrary.wiley.com/doi/abs/10.1111/nph.15123>
- Vicca, S., **Stocker, B.**, Reed, S., Wieder, W. R., Bahn, M., Fay, P., Janssens, I., Lambers, H., Peñuelas, J., Piao, S., Rebel, K., Sardans, J., Sigurdsson, B., Sundert, K. V., Wang, Y.-P., Zaehle, S., and Ciais, P.: Using research networks to create the comprehensive datasets needed to assess nutrient availability as a key determinant of terrestrial carbon cycling, *Environmental Research Letters*, URL <http://iopscience.iop.org/10.1088/1748-9326/aacae7>, 2018.
  - For this perspectives paper, I am acknowledged to have made equal contributions with the first author.
  - Link: <http://iopscience.iop.org/article/10.1088/1748-9326/aacae7/pdf>
- Terrer, C., Vicca, S., **Stocker, B. D.**, Hungate, B. A., Phillips, R. P., Reich, P. B., Finzi, A. C., and Prentice, I. C.: Ecosystem responses to elevated CO<sub>2</sub> governed by plant-soil interactions and the cost of nitrogen acquisition, *New Phytologist*, 217, 507–522, 2018.
  - I designed the evaluation framework and contributed intensively to writing the manuscript. This was published as a *Tansley Review*
  - Link: [http://bstocker.net/wp-content/uploads/2016/09/Terrer\\_et\\_al-2017-New\\_Phytologist.pdf](http://bstocker.net/wp-content/uploads/2016/09/Terrer_et_al-2017-New_Phytologist.pdf)
- Wang, Y., Ciais, P., Goll, D., Huang, Y., Luo, Y., Wang, Y.-P., Bloom, A. A., Broquet, G., Hartmann, J., Peng, S., Peñuelas, J., Piao, S., Sardans, J., **Stocker, B. D.**, Wang, R., Zaehle, S., and Zechmeister-Boltenstern, S.: GOLUM-CNP v1.0: a data-driven modeling of carbon, nitrogen and phosphorus cycles in major terrestrial biomes, *Geoscientific Model Development*, 11, 3903–3928, doi:10.5194/gmd-11-3903-2018, URL <https://www.geosci-model-dev.net/11/3903/2018/>, 2018.
  - I contributed to model formulation, the design of the study and manuscript writing.
  - Link: <https://www.geosci-model-dev.net/11/3903/2018/gmd-11-3903-2018.pdf>

- Le Quéré, C., Andrew, R. M., Friedlingstein, P., Sitch, S., Pongratz, J., Manning, A. C., Korsbakken, J. I., Peters, G. P., Canadell, J. G., Jackson, R. B., Boden, T. A., Tans, P. P., Andrews, O. D., Arora, V. K., Bakker, D. C. E., Barbero, L., Becker, M., Betts, R. A., Bopp, L., Chevallier, F., Chini, L. P., Ciais, P., Cosca, C. E., Cross, J., Currie, K., Gasser, T., Harris, I., Hauck, J., Haverd, V., Houghton, R. A., Hunt, C. W., Hurtt, G., Ilyina, T., Jain, A. K., Kato, E., Kautz, M., Keeling, R. F., Klein Goldewijk, K., Körtzinger, A., Landschützer, P., Lefèvre, N., Lenton, A., Lienert, S., Lima, I., Lombardozi, D., Metzl, N., Millero, F., Monteiro, P. M. S., Munro, D. R., Nabel, J. E. M. S., Nakaoka, S.-I., Nojiri, Y., Padin, X. A., Peregon, A., Pfeil, B., Pierrot, D., Poulter, B., Rehder, G., Reimer, J., Rödenbeck, C., Schwinger, J., Séférian, R., Skjelvan, I., **Stocker, B. D.**, Tian, H., Tilbrook, B., Tubiello, F. N., van der Laan-Luijkx, I. T., van der Werf, G. R., van Heuven, S., Viovy, N., Vuichard, N., Walker, A. P., Watson, A. J., Wiltshire, A. J., Zaehle, S., and Zhu, D.: Global Carbon Budget 2017, *Earth System Science Data*, 10, 405–448, doi:10.5194/essd-10-405-2018, URL, 2018.

- I prepared land use forcing data and contributed to writing.
- Link: <https://www.earth-syst-sci-data.net/10/405/2018/>

- 2017 Stocker, B. D.**, Yu, Z., Massa, C., and Joos, F.: Holocene peatland and ice-core data constraints on the timing and magnitude of CO<sub>2</sub> emissions from past land use, *Proceedings of the National Academy of Sciences*, 114, 1492–1497, doi:10.1073/pnas.1613889114, 2017.

- I led the study and conducted the analysis and writing.
- Link: <http://bstocker.net/wp-content/uploads/2017/01/stocker17pnas.pdf>

- Arneth, A., Sitch, S., Pongratz, J., **Stocker, B. D.**, Ciais, P., Poulter, B., Bayer, A. D., Bondeau, A., Calle, L., Chini, L. P., Gasser, T., Fader, M., Friedlingstein, P., Kato, E., Li, W., Lindeskog, M., Nabel, J. E. M. S., Pugh, T. A. M., Robertson, E., Viovy, N., Yue, C., and Zaehle, S.: Historical carbon dioxide emissions caused by land-use changes are possibly larger than assumed, *Nature Geoscience*, 10, 79–84, URL <http://dx.doi.org/10.1038/ngeo2882>, 2017.

- I contributed model simulations and contributed to designing the study and writing.
- Link: <http://bstocker.net/wp-content/uploads/2016/09/arneth17natgeo.pdf>

- Terrer, C., Vicca, S., Hungate, B. A., Phillips, R. P., Reich, P. B., Franklin, O., **Stocker, B. D.**, Fisher, J. B., and Prentice, I. C.: Response to Comment on “Mycorrhizal association as a primary control of the CO<sub>2</sub> fertilization effect”, *Science*, 355, 358–358, doi:10.1126/science.aai8242, URL <http://science.sciencemag.org/content/355/6323/358.3>, 2017.

- I contributed to writing.
- Link: [http://bstocker.net/wp-content/uploads/2016/09/terrer17sci\\_response.pdf](http://bstocker.net/wp-content/uploads/2016/09/terrer17sci_response.pdf)

- Davis, T. W., Prentice, I. C., **Stocker, B. D.**, Thomas, R. T., Whitley, R. J., Wang, H., Evans, B. J., Gallego-Sala, A. V., Sykes, M. T., and Cramer, W.: Simple process-led algorithms for simulating habitats (SPLASH v.1.0): robust indices of radiation, evapotranspiration and plant-available moisture, *Geoscientific Model Development*, 10, 689–708, doi:10.5194/gmd-10-689-2017, URL <http://www.geosci-model-dev.net/10/689/2017/>, 2017.

- I collaborated closely on the development of this model code and wrote its version in Fortran.
- Link: <http://www.geosci-model-dev.net/10/689/2017/>

- Peñuelas, J., Sardans, J., Filella, I., Estiarte, M., Llusía, J., Ogaya, R., Carnicer, J., Bartrons, M., Rivas-Ubach, A., Grau, O., Peguero, G., Margalef, O., Pla-Rabés, S., Stefanescu, C., Asensio, D., Preece, C., Liu, L., Verger, A., Barbeta, A., Achotegui- Castells, A., Gargallo-Garriga, A., Sperlich, D., Farré -Armengol, G., Fernández- Martínez, M., Liu, D., Zhang, C., Urbina, I., Camino-Serrano, M., Vives-Inglá, M., **Stocker, B. D.**, Balzarolo, M., Guerrieri, R., Peaucelle, M., Marañón-Jiménez, S., Bórnez-Mejías, K., Mu, Z., Descals, A., Castellanos, A., and Terradas, J.: Impacts of Global Change on Mediterranean Forests and Their Services, *Forests*, 8, <http://www.mdpi.com/1999-4907/8/12/463/pdf> , 2017.
  - I contributed to writing.
  - Link: <http://www.mdpi.com/1999-4907/8/12/463/pdf>
- Li, W., Ciais, P., Peng, S., Yue, C., Wang, Y., Thurner, M., Saatchi, S. S., Arneeth, A., Avitabile, V., Carvalhais, N., Harper, A. B., Kato, E., Koven, C., Liu, Y. Y., Nabel, J. E. M. S., Pan, Y., Pongratz, J., Poulter, B., Pugh, T. A. M., Santoro, M., Sitch, S., **Stocker, B. D.**, Viovy, N., Wiltshire, A., Yousefpour, R., and Zaehle, S.: Land- use and land-cover change carbon emissions between 1901 and 2012 constrained by biomass observations, *Biogeosciences*, 14, 5053–5067, 2017.
  - I contributed model simulations and helped writing the manuscript.
  - Link: <https://www.biogeosciences.net/14/5053/2017/>
- 2016** Le Quéré, C., Andrew, R. M., Canadell, J. G., Sitch, S., Korsbakken, J. I., Peters, G. P., Manning, A. C., Boden, T. A., Tans, P. P., Houghton, R. A., Keeling, R. F., Alin, S., Andrews, O. D., Anthoni, P., Barbero, L., Bopp, L., Chevallier, F., Chini, L. P., Ciais, P., Currie, K., Delire, C., Doney, S. C., Friedlingstein, P., Gkritzalis, T., Harris, I., Hauck, J., Haverd, V., Hoppema, M., Klein Goldewijk, K., Jain, A. K., Kato, E., Körtzinger, A., Landschützer, P., Lefevre, N., Lenton, A., Lienert, S., Lombardozzi, D., Melton, J. R., Metzl, N., Millero, F., Monteiro, P. M. S., Munro, D. R., Nabel, J. E. M. S., Nakaoka, S.-I., O'Brien, K., Olsen, A., Omar, A. M., Ono, T., Pierrot, D., Poulter, B., Rödenbeck, C., Salisbury, J., Schuster, U., Schwinger, J., Séférian, R., Skjelvan, I., **Stocker, B. D.**, Sutton, A. J., Takahashi, T., Tian, H., Tilbrook, B., van der Laan-Luijkx, I. T., van der Werf, G. R., Viovy, N., Walker, A. P., Wiltshire, A. J., and Zaehle, S.: Global Carbon Budget 2016, *Earth System Science Data*, 8, 605–649, doi:10.5194/essd-8-605-2016, URL <http://www.earth-syst-sci-data.net/8/605/2016/>, 2016.
  - I contributed model simulations and text on land use emissions and land-ocean carbon fluxes.
  - Link: <http://www.earth-syst-sci-data.net/8/605/2016/>
- Zhang, Y., Xiao, X., Guanter, L., Zhou, S., Ciais, P., Joiner, J., Sitch, S., Wu, X., Nabel, J., Dong, J., Kato, E., Jain, A. K., Wiltshire, A., and **Stocker, B. D.**: Precipitation and carbon-water coupling jointly control the interannual variability of global land gross primary production, *Scientific Reports*, 6, 39748 EP –, URL <http://dx.doi.org/10.1038/srep39748>, 2016.
  - I contributed model simulations and helped writing the manuscript.
  - Link: <http://dx.doi.org/10.1038/srep39748>
- Zhao, F., Zeng, N., Asrar, G., Friedlingstein, P., Ito, A., Jain, A., Kalnay, E., Kato, E., Koven, C. D., Poulter, B., Rafique, R., Sitch, S., Shu, S., **Stocker, B. D.**, Viovy, N., Wiltshire, A., and Zaehle, S.: Role of CO<sub>2</sub>, climate and land use in regulating the seasonal amplitude increase of carbon fluxes in terrestrial ecosystems: a multimodel analysis, *Biogeosciences*, 13, 5121-5137, doi:10.5194/bg-13-5121-2016, 2016.
  - I contributed model simulations.
  - Link: <https://www.biogeosciences.net/13/5121/2016/>



- Murray-Tortarolo, G., Friedlingstein, P., Sitch, S., Jaramillo, V. J., Murguía-Flores, F., Anav, A., Liu, Y., Arneth, A., Arvanitis, A., Harper, A., Jain, A., Kato, E., Koven, C., Poulter, B., **Stocker, B. D.**, Wiltshire, A., Zaehle, S., and Zeng, N.: The carbon cycle in Mexico: past, present and future of C stocks and fluxes, *Biogeosciences*, 13, 223-238, doi:10.5194/bg-13-223-2016, 2016
  - I contributed model simulations and helped writing the manuscript.
  - Link: <http://www.biogeosciences.net/13/223/2016/>
- Calle, L., Canadell, J. G., Patra, P., Ciais, P., Ichii, K., Tian, H., Kondo, M., Piao, S., Arneth, A., Harper, A. B., Ito, A., Kato, E., Koven, C., Sitch, S., **Stocker, B. D.**, Vivoy, N., Wiltshire, A., Zaehle, S., and Poulter, B.: Regional carbon fluxes from land use and land cover change in Asia, 1980–2009, *Environmental Research Letters*, 11, 074 011, URL <http://stacks.iop.org/1748-9326/11/i=7/a=074011>, 2016
  - I contributed model simulations and helped writing the manuscript.
  - Link: [http://bstocker.net/wp-content/uploads/2016/09/calle16erl\\_trendy.pdf](http://bstocker.net/wp-content/uploads/2016/09/calle16erl_trendy.pdf)
- Cervarich, M., Shu, S., Jain, A. K., Arneth, A., Canadell, J., Friedlingstein, P., Houghton, R. A., Kato, E., Koven, C., Patra, P., Poulter, B., Sitch, S., **Stocker, B.**, Viovy, N., Wiltshire, A., and Zeng, N.: The terrestrial carbon budget of South and Southeast Asia, *Environmental Research Letters*, 11, 105 006, URL <http://stacks.iop.org/1748-9326/11/i=10/a=105006>, 2016.
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