

## LPJ-GUESS Bibliography

### Peer-reviewed journal articles

1. Badeck, F.-W., Lischke, H., Bugmann, H., Hickler, T., Hönninger, K., Lasch, P., Lexer, M.J., Mouillot, F., Schaber, J. & Smith, B. 2001. Tree species composition in European pristine forests. Comparison of stand data to model predictions. *Climatic Change* 51: 307-347.
2. Smith, B., Prentice, I.C. & Sykes, M.T. 2001. Representation of vegetation dynamics in the modelling of terrestrial ecosystems: comparing two contrasting approaches within European climate space. *Global Ecology & Biogeography* 10: 621-637.
3. Hickler, T., Smith, B., Sykes, M.T., Davis, M.B., Sugita, S. & Walker, K. 2004. Using a generalized vegetation model to simulate vegetation dynamics in the western Great Lakes region, USA, under alternative disturbance regimes. *Ecology* 85: 519-530.
4. Hickler, T., Eklundh, L., Seaquist, J., Smith, B., Ardö, J., Olsson, L., Sykes, M.T. & Sjöström, M. 2005. Precipitation controls Sahel greening trend. *Geophysical Research Letters* 32: L21415.
5. Morales, P., Sykes, M.T., Prentice, I.C., Smith, P., Smith, B., Bugmann, H., Zierl, B., Friedlingstein, P., Viovy, N., Sabate, S., Sanchez, A., Pla, E., Gracia, C.A., Sitch, S., Arneth, A. & Ogee, J. 2005. Comparing and evaluating process-based ecosystem model predictions of carbon and water fluxes in major European forest biomes. *Global Change Biology* 11: 2211-2233.
6. Schröter, D., Cramer, W., Leemans, R., Prentice, C., Araújo, M.B., Arnell, N.W., Bondeau, A., Bugmann, H., Carter, T.R., Garcia, C.A., de la Vega-Leinert, A.C., Erhard, M., Ewert, F., Glendining, M., House, J.I., Kankaanpää, S., Klein, R.J.T., Lavorel, S., Lindner, M., Metzger, M.J., Meyer, J., Mitchell, T.D., Reginster, I., Rounsevell, M., Sabaté, S., Sitch, S., Smith, B., Smith, J., Smith, P., Sykes, M.T., Thonicke, K., Thuiller, W., Tuck, G., Zaehle, S. & Zierl, B. 2005. Ecosystem service supply and vulnerability to global change in Europe. *Science* 310: 1333-1337.
7. Zaehle, S., Sitch, S., Smith, B. & Hatterman, F. 2005. Effects of parameter uncertainties on the modeling of terrestrial biosphere dynamics. *Global Biogeochemical Cycles* 19: 3020.
8. Gritti, E.S., Smith, B. & Sykes, M.T. 2006. Vulnerability of Mediterranean basin ecosystems to climate change and invasion by exotic plant species. *Journal of Biogeography* 33: 145-157.
9. Hély, C., Bremond, L., Alleaume, S., Smith, B., Sykes, M.T. & Guiot, J. 2006. Sensitivity of African biomes to changes in the precipitation regime. *Global Ecology & Biogeography* 15: 258-270.
10. Hickler, T., Prentice, I.C., Smith, B., Sykes, M.T. & Zaehle, S. 2006. Implementing plant hydraulic architecture within the LPJ Dynamic Global Vegetation Model. *Global Ecology & Biogeography* 15: 567-577.
11. Koca, D., Smith, B. & Sykes, M.T. 2006. Modelling regional climate change effects on Swedish ecosystems. *Climatic Change* 78: 381-406.
12. Müller, C., Bondeau, A., Lotze-Campen, H., Cramer, W. & Lucht, W. 2006. Comparative impact of climatic and nonclimatic factors on global terrestrial carbon and water cycles. *Global Biogeochemical Cycles* 20, GB4015.
13. Zaehle, S., Sitch, S., Prentice, I.C., Liski, J., Cramer, W., Erhard, M., Hickler, T. & Smith, B. 2006. The importance of representing age-related decline in forest NPP for modeling regional carbon balances. *Ecological Applications* 16: 1555-1574.
14. Arneth, A., Miller, P.A., Scholze, M., Hickler, T., Schurgers, G., Smith, B. & Prentice, I.C. 2007. CO<sub>2</sub> inhibition of global terrestrial isoprene emissions: Potential implications for atmospheric chemistry. *Geophysical Research Letters* 34: L18813.
15. Arneth, A., Niinemets, Ü., Pressley, S., Bäck, J., Hari, P., Karl, T., Noe, S., Prentice, I.C., Serça, D., Hickler, T., Wolf, A. & Smith, B. 2007. Process-based estimates of terrestrial ecosystem isoprene emissions: incorporating the effects of a direct CO<sub>2</sub>-isoprene interaction. *Atmospheric Chemistry & Physics* 7: 31-53.
16. Bondeau, A., Smith, P.C., Zaehle, S., Schaphoff, S., Lucht, W., Cramer, W., Gerten, D., Lotze-Campen, H., Müller, C., Reichstein, M. & Smith, B. 2007. Modelling the role of agriculture for the 20th century global terrestrial carbon balance. *Global Change Biology* 13: 679-706.
17. Morales, P., Hickler, T., Rowell, D.P., Smith, B. & Sykes, M.T. 2007. Changes in European ecosystem productivity and carbon balance driven by Regional Climate Model output. *Global Change Biology* 13: 108-122.

18. Olesen, J.E., Carter, T.R., Diaz-Ambrona, C.H., Fronzek, S., Heidmann, T., Hickler, T., Holt, T., Minguuez, M.I., Morales, P., Palutikov, J., Quemada, M., Ruiz-Ramos, M., Ruback, G.H., Sau, F., Smith, B. & Sykes, M.T. 2007. Uncertainties in projected impacts of climate change on European agriculture and terrestrial ecosystems based on scenarios from regional climate models. *Climatic Change* 81: 123-143.
19. Werner, C., Butterbach-Bahl, K., Haas, E., Hickler, T. & Kiese, R. 2007. A global inventory from tropical rainforest soils of N<sub>2</sub>O emissions using a detailed biogeochemical model. *Global Biogeochemical Cycles* 21: GB3010.
20. Yurova, A.Y. & Lankreijer, H. 2007. Carbon storage in the organic layers of boreal forest soils under various moisture conditions: A model study for Northern Sweden sites. *Ecological Modelling* 204: 475-484.
21. Yurova, A., Wolf, A., Sagerfors, J. & Nilsson, M. 2007. Variations in net ecosystem exchange of carbon dioxide in a boreal mire: Modeling mechanisms related to water table position. *Journal of Geophysical Research* 112, G02025.
22. Zaehle, S., Bondeau, A., Carter, T.R., Cramer, W., Erhard, M., Prentice, I.C., Reginster, I., Rounsevell, M.D.A., Sitch, S., Smith, B., Smith, P.C. & Sykes, M. 2007. Projected changes in terrestrial carbon storage in Europe under climate and land use change, 1990-2100. *Ecosystems* 10: 380-401.
23. Arneth, A., Schurgers, G., Hickler, T. & Miller, P.A. 2008. Effects of species composition, land surface cover, CO<sub>2</sub> concentration and climate on isoprene emissions from European forests. *Plant Biology* 10: 150-162.
24. Gaucherel, C., Alleaume, S. & Hély, C. 2008. The comparison map profile method: a strategy for multiscale comparison of quantitative and qualitative images. *IEEE Transactions on Geoscience & Remote Sensing* 46: 2708-2719.
25. Göttel, H., Alexander, J., Keup-Thiel, E., Rechid, D., Hagemann, S., Blome, T., Wolf, A. & Jacob, D. 2008. Influence of changed vegetations fields on regional climate simulations in the Barents Sea Region. *Climatic Change* 87: 35-50.
26. Hickler, T., Smith, B., Prentice I.C., Mjöfors, K., Miller, P., Arneth, A. & Sykes, M.T. 2008. CO<sub>2</sub> fertilization in temperate forest FACE experiments not representative of boreal and tropical forests. *Global Change Biology* 14: 1.12.
27. Jansson, M., Hickler, T., Jonsson, A. & Karlsson, J. 2008. Links between terrestrial primary production and bacterial production and respiration in lakes in a climate gradient in subarctic Sweden. *Ecosystems* 11: 367-376.
28. Miller, P.A., Giesecke, T., Hickler, T., Bradshaw, R.H.W., Smith, B., Seppä, H., Valdes, P.J. & Sykes, M.T. 2008. Exploring climatic and biotic controls on Holocene vegetation change in Fennoscandia. *Journal of Ecology* 96: 247-259.
29. Olofsson, J. & Hickler, T. 2008. Effects of human land-use on the global carbon cycle during the last 6,000 years. *Vegetation History & Archaeobotany* 17: 605-615.
30. Rickebusch, S., Thuiller, W., Hickler, T., Araujo, M.B., Sykes, M.T., Schweiger, O. & Lafourcade, B. 2008. Incorporating the effects of changes in vegetation functioning and CO<sub>2</sub> on water availability in plant habitat models. *Biology Letters* 4: 556-559.
31. Smith, B., Knorr, W., Widlowski, J.-L., Pinty, B. & Gobron, N. 2008. Combining remote sensing data with process modelling to monitor boreal conifer forest carbon balances. *Forest Ecology & Management* 255: 3985-3994.
32. Thomas, C.D., Ohlemüller, R., Anderson, B., Hickler, T., Miller, P.M., Sykes, M.T. & Williams, J.W. 2008. Exporting the ecological effects of climate change. *EMBO Reports* 9: S28-33.
33. Wolf, A., Blyth, E., Harding, R., Jacob, D., Keup-Thiel, E., Goettel, H. & Callaghan, T. 2008. Sensitivity of an ecosystem model to hydrology and temperature. *Climatic Change* 87: 75-89.
34. Wolf, A., Callaghan, T.V. & Larson, K. 2008. Future changes in vegetation and ecosystem function of the Barents Region. *Climatic Change* 87: 51-73.
35. Wolf, A., Kozlov, M.V. & Callaghan, T.V. 2008. Impact of non-outbreak insect damage on vegetation in northern Europe will be greater than expected during a changing climate. *Climatic Change* 87: 91-106.
36. Wramneby, A., Smith, B., Zaehle, S. & Sykes, M.T. 2008. Parameter uncertainties in the modelling of vegetation dynamics – effects on tree community structure and ecosystem functioning in European forest biomes. *Ecological Modelling* 216: 277-290.
37. Zöckler, C., Miles, L., Fish, L., Wolf, A., Rees, G. & Danks, F. 2008. Potential impact of climate change and reindeer density on tundra indicator species in the Barents Sea region. *Climatic Change* 87: 119-130.

38. Bombelli, A., Henry, M., Castaldi, S., Adu-Bredu, S., Arneth, A., de Grandcourt, A., Grieco, E., Kutsch, W.L., Lehsten, V., Rasile, A., Reichstein, M., Tansey, K., Weber, U. & Valentini, R. 2009. An outlook on the Sub-Saharan Africa carbon balance. *Biogeosciences* 6: 2193-2205.
39. Gimmi, U., Wolf, A., Bürgi, M., Scherstjanoi, M. & Bugmann, H. 2009. Quantifying disturbance effects on vegetation carbon pools in mountain forests based on historical data. *Regional Environmental Change* 9: 121-130.
40. Guiot, J., Wu, H.B., Garreta, V., Hatté, C. & Magny, M. 2009. A few prospective ideas on climate reconstruction: from a statistical single proxy approach towards a multi-proxy and dynamical approach. *Climate of the Past* 5: 571-583.
41. Hély, C., Braconnot, P., Watrin, J. & Zheng, W. 2009. Climate and vegetation: simulating the African humid period. *Comptes Rendus Geoscience* 341: 671-688.
42. Hickler, T., Fronzek, S., Araújo, M.B., Schweiger, O., Thuiller, W. & Sykes, M.T. 2009. An ecosystem model-based estimate of changes in water availability differs from water proxies that are commonly used in species distribution models. *Global Ecology & Biogeography* 18: 304-313.
43. Kumschick, S., Schmidt-Entling, M.H., Bacher, S., Hickler, T., Entling, W. & Nentwig, W. 2009. Water limitation prevails over energy in European diversity gradients of sheetweb spiders (Araneae: Linyphiidae). *Basic & Applied Ecology* 10: 754-762.
44. Kumschick, S., Schmidt-Entling, M.H., Bacher, S., Hickler, T., Espadaler, X. & Nentwig, W. 2009. Determinants of local ant (Hymenoptera: Formicidae) species richness and activity density across Europe. *Ecological Entomology* 34: 748-754.
45. Lehsten, V., Tansey, K., Baltzer, H., Thonicke, K., Spessa, A., Weber, U., Smith, B. & Arneth, A. 2009. Estimating carbon emissions from African wildfires. *Biogeosciences* 6: 349-360.
46. Liu, R.-G., Li, N., Su, H.-X. & Sang, W.-G. 2009. Simulation and analysis on future carbon balance of three deciduous forests in Beijing mountain area, warm temperate zone of China. *Chinese Journal of Plant Ecology* 33: 516-534.
47. Seaquist, J.W., Hickler, T., Eklundh, L., Ardö, J. & Heumann, B.W. 2009. Disentangling the effects of climate and people on Sahel vegetation dynamics. *Biogeosciences* 6: 469-477.
48. Seppä, H., Alenius, T., Muukkonen, P., Giesecke, T., Miller, P.A., Ojala, A.E.K., 2009. Calibrated pollen accumulation rates as a basis for quantitative tree biomass reconstructions. *The Holocene* 19: 209-220.
49. Schurgers, G., Arneth, A., Holzinger, R. & Goldstein, A.H. 2009. Process-based modelling of biogenic monoterpene emissions combining production and release from storage. *Atmospheric Chemistry & Physics* 9: 3409-3423.
50. Schurgers, G., Hickler, T., Miller, P.A. & Arneth, A. 2009. European emissions of isoprene and monoterpenes from the Last Glacial Maximum to present. *Biogeosciences* 6: 2779-2797.
51. Tagesson, T., Smith, B., Löfgren, A., Rammig, A., Eklundh, L. & Lindroth, A. 2009. Estimating net primary production of Swedish forest landscapes by combining mechanistic modeling and remote sensing. *Ambio* 38: 316-324.
52. Weber, U., Jung, M., Reichstein, M., Beer, C., Braakhekke, M.C., Lehsten, V., Ghent, D., Kaduk, J., Viovy, N., Ciais, P., Gobron, N. & Rödenbeck, C. 2009. The interannual variability of Africa's ecosystem productivity: a multi-model analysis. *Biogeosciences* 6: 285-295.
53. Young, P.J., Arneth, A., Schurgers, G., Zeng, G. & Pyle, J.A. 2009. The CO<sub>2</sub> inhibition of terrestrial isoprene emission significantly affects future ozone projections. *Atmospheric Chemistry & Physics* 9: 2793-2803.
54. Allen, J.R.M., Hickler, T., Singarayer, J.S., Sykes, M.T., Valdes, P.J. & Huntley, B. 2010. Last glacial vegetation of northern Eurasia. *Quaternary Science Reviews* 29: 2604-2618.
55. Gaillard, M.-J., Sugita, S., Mazier, F., Trondman, A.-K., Broström, A., Hickler, T., Kaplan, J.O., Kjellström, E., Kokfelt, U., Kuneš, P., Lemmen, C., Miller, P., Olofsson, J., Poska, A., Rundgren, M., Smith, B., Strandberg, G., Fyfe, R., Nielsen, A.B., Alenius, T., Balakauskas, L., Barnekow, L., Birks, H.J.B., Bjune, A., Björkman, L., Giesecke, T., Hjelle, K., Kalnina, L., Kangur, M., van der Knaap, W.O., Koff, T., Lagerås, P., Latałowa, M., Leydet, M., Lechterbeck, J., Lindbladh, M., Odgaard, B., Peglar, S., Segerström, U., von Stedingk, H. & Seppä, H. 2010. Holocene land-cover reconstructions for studies on land cover-climate feedbacks. *Climate of the Past* 6: 483-499.
56. Garreta, V., Miller, P.A., Guiot, J., Hély, C., Brewer, S., Sykes, M.T. & Litt, T. 2010. A method for climate and vegetation reconstruction through the inversion of a dynamic vegetation model. *Climate Dynamics* 35: 371-389.

57. Giesecke, T., Miller, P.A., Sykes, M.T., Ojala, A.E.K., Seppä, H. & Bradshaw, R.H.W. 2010. The effect of past changes in inter-annual temperature variability on tree distribution limits. *Journal of Biogeography* 37: 1394-1405.
58. Kjellström, E., Brandefelt, J., Näslund, J.-O., Smith, B., Strandberg, G., Voelker, A.H.L. & Wohlfart, B. 2010. Simulated climate conditions in Europe during the Marine Isotope Stage 3 stadial. *Boreas* 39: 436-456.
59. Kramer, K., Degen, B., Buschbom, J., Hickler, T., Thuiller, W., Sykes, M.T. & de Winter, W. 2010. Modelling exploration of the future of European beech (*Fagus sylvatica* L.) under climate change—Range, abundance, genetic diversity and adaptive response. *Forest Ecology & Management* 259: 2213-2222.
60. Portner, J., Bugmann, H. & Wolf, A. 2010. Temperature response functions introduce high uncertainty in modelled carbon stocks in cold temperature regimes. *Biogeosciences* 7: 3669-3684.
61. Rammig, A., Jönsson, A.M., Hickler, T., Smith, B., Bärring, L. & Sykes, M.T. 2010. Impacts of changing frost regimes on Swedish forests: Incorporating cold hardiness in a regional ecosystem model. *Ecological Modelling* 221: 303-313.
62. Tang, G., Beckage, B., Smith, B. & Miller, P.A. 2010. Estimating forest NPP, biomass and their climatic sensitivity in New England using a regional dynamic ecosystem model. *Ecosphere* 1: 1-20.
63. Wramneby, A., Smith, B. & Samuelsson, P. 2010. Hotspots of vegetation-climate feedbacks under future greenhouse forcing in Europe. *Journal of Geophysical Research* 115, D21119.
64. Arneth, A., Schurgers, G., Lathiere, J., Duhl, T., Beerling, D.J., Hewitt, C.N., Martin, M. & Guenther, A. 2011. Global terrestrial isoprene emission models: sensitivity to variability in climate and vegetation. *Atmospheric Chemistry & Physics* 11: 8037-8052.
65. Barkley, M.P., Palmer, P.I., Ganzeveld, L., Arneth, A., Hagberg, D., Karl, T., Guenther, A., Paulot, F., Wennberg, P.O., Mao, J., Kurosu, T.P., Chance, K., Müller, J.-F., De Smedt, I., Van Roozendaal, M., Chen, D., Wang, Y. & Yantosca, R.M. 2011. Can a “state of the art” chemistry transport model simulate Amazonian tropospheric chemistry? *Journal of Geophysical Research* 116.
66. Li, L., Su, H.-X. & Sang, W.-G. 2011. Simulating impacts of summer drought on forest dynamics in Donglin Mountain. *Chinese Journal of Plant Ecology* 35: 147-158.
67. Peng, C., Guiot, J., Wu, H., Jiang, H. & Luo, Y. 2011. Integrating models with data in ecology and palaeoecology: advances towards a model-data fusion approach. *Ecology Letters* 14: 522-536.
68. Roldin, P., Swietlicki, E., Massling, A., Kristensson, A., Löndahl, J., Eriksson, A., Pagels, J. & Gustafsson, S. 2011. Aerosol ageing in an urban plume – implications for climate. *Atmospheric Chemistry & Physics* 11: 5867-5915.
69. Roldin, P., Swietlicki, E., Schurgers, G., Arneth, A., Lehtinen, K.E.J., Boy, M. & Kulmala, M. 2011. Development and evaluation of the aerosol dynamics and gas phase chemistry model ADCHEM. *Atmospheric Chemistry & Physics* 11: 5867-5896.
70. Schurgers, G., Arneth, A. & Hickler, T. 2011. Effect of climate-driven changes in species composition on regional emission capacities of biogenic compounds. *Journal of Geophysical Research* 116.
71. Smith, B., Samuelsson, P., Wramneby, A. & Rummukainen, M. 2011. A model of the coupled dynamics of climate, vegetation and terrestrial ecosystem biogeochemistry for regional applications. *Tellus* 63A: 87-106.
72. Strandberg, G., Brandefelt, J., Kjellström, E. & Smith, B. 2011. High resolution regional simulation of last glacial maximum climate in Europe. *Tellus* 63A: 107-125.
73. Triviño, M., Thuiller, W., Cabeza, M., Hickler, T. & Araújo, M.B. 2011. The contribution of vegetation and landscape configuration for predicting environmental change impacts on Iberian birds. *PLoS ONE* 6: e29373.
74. Wolf, A. 2011. Estimating the potential impact of vegetation on the water cycle requires accurate soil water parameter estimation. *Ecological Modelling* 15: 2595-2605.
75. Ahlström, A., Miller, P.A. & Smith, B. 2012. Too early to infer a global NPP decline since 2000. *Geophysical Research Letters* 39, L15403.
76. Ahlström, A., Schurgers, G., Arneth, A. & Smith, B. 2012. Robustness and uncertainty in terrestrial ecosystem carbon response to CMIP5 climate change projections. *Environmental Research Letters* 7: 044008.
77. Barkley, M.P., Kurosu, T.P., Chance, K., De Smedt, I., Van Roozendaal, M., Arneth, A., Hagberg, D. & Guenther, A. 2012. Assessing sources of uncertainty in formaldehyde air mass factors over tropical South America: Implications for top-down isoprene emission estimates. *Journal of Geophysical Research—Atmospheres* 117: D13304.

78. Cheaib, A., Badeau, V., Boe, J., Chuine, I., Delire, C., Dufrêne, E., Francois, C., Gritti, E.S., Legay, M., Pagé, C., Thuiller, W., Viovy, N. & Leadley, P. 2012. Climate change impacts on tree ranges: model intercomparison facilitates understanding and quantification of uncertainty. *Ecology Letters* 15: 533-544.
79. Entling, M.H., Schweiger, O., Bacher, S., Espadaler, X., Hickler, T., Kumschick, S., Woodcock, B.A. & Nentwig, W. 2012. Species richness-environment relationships of European arthropods at two spatial grains: habitats and countries. *PLoS ONE* 7: e45875.
80. Garetta, V., Guiot, J., Mortier, F., Chadoeuf, J. & Hély, C. 2012. Pollen-based climate reconstruction: calibration of the vegetation-pollen processes. *Ecological Modelling* 235: 81-94.
81. Hickler, T., Vohland, K., Feehan, J., Miller, P.A., Smith, B., Costa, L., Giesecke, T., Fronzek, S., Carter, T.R., Cramer, W., Kühn, I. & Sykes, M.T. 2012. Projecting the future distribution of European potential natural vegetation zones with a generalized, tree species-based dynamic vegetation model. *Global Ecology & Biogeography* 21: 50-63.
82. Lagergren, F., Jönsson, A.M., Blennow, K. & Smith, B. 2012. Implementing storm damage in a dynamic vegetation model for regional applications in Sweden. *Ecological Modelling* 247: 71-82.
83. Leuzinger, S. & Bader, M. 2012. Experimental versus modelled water use in mature Norway spruce (*Picea abies*) exposed to elevated CO<sub>2</sub>. *Frontiers in Plant Science* 3: 229.
84. Jönsson, A.M., Schroeder, L.M., Lagergren, F., Anderbrant, O. & Smith, B. 2012. Guess the impact of *Ips typographus*—an ecosystem modelling approach for simulating spruce bark beetle outbreaks. *Agricultural & Forest Meteorology* 166-167: 188-200.
85. Knorr, W., Lehsten, V. & Arneth, A. 2012. Determinants and predictability of global wildfire emissions. *Atmospheric Chemistry & Physics* 12: 6845-6861.
86. Kuemmerle, T., Hickler, T., Olofsson, J., Schurgers, G. & Radeloff, V.C. 2012. Reconstructing range dynamics and range fragmentation of European bison for the last 8000 years. *Diversity & Distributions* 18: 47-59.
87. Makkonen, R., Asmi, A., Kerminen, V.-M., Boy, M., Arneth, A., Guenther, A. & Kulmala, M. 2012. BVOC-aerosol-climate interactions in the global aerosol-climate model ECHAM5.5-HAM2. *Atmospheric Chemistry & Physics* 12: 10077-10096.
88. Manusch, C., Bugmann, H., Heiri, C. & Wolf, A. 2012. Tree mortality in dynamic vegetation models - A key feature for accurately simulating forest properties. *Ecological Modelling* 243: 101-111.
89. Matthes, H., Rinke, A., Miller, P.A., Kuhry, P., Dethloff, K. & Wolf, A. 2012. Sensitivity of high-resolution Arctic regional climate model projections to different implementations of land surface processes. *Climatic Change* 111: 197-214.
90. McGuire, A.D., Christensen, T.R., Hayes, D., Heroult, A., Euskirchen, E., Kimball, J.S., Koven, C., Laflleur, P., Miller, P.A., Oechel, W., Peylin, P., Williams, M. & Yi, Y. 2012. An assessment of the carbon balance of Arctic tundra: comparisons among observations, process models, and atmospheric inversions. *Biogeosciences* 9: 1-20.
91. Miller, P.A. & Smith, B. 2012. Modelling tundra vegetation response to recent Arctic warming. *Ambio* 41: 281-291.
92. Omstedt, A., Edman, M., Claremar, B., Frodin, P., Gustavsson, E., Humborg, C., Hägg, H., Mörth, M., Rutgersson, A., Schurgers, G., Smith, B., Wällstedt, T. & Yurova, A. 2012. Future changes in the Baltic Sea acid-base (pH) and oxygen balances. *Tellus* 64B: 19586.
93. Piao, S.L., Ito, A., Li, S.G., Huang, Y., Ciais, P., Wang, X.H., Peng, S.S., Nan, H.J., Zhao, C., Ahlström, A., Andres, R.J., Chevallier, F., Fang, J.Y., Hartmann, J., Huntingford, C., Jeong, S., Levis, S., Levy, P.E., Li, J.S., Lomas, M.R., Mao, J.F., Mayorga, E., Mohammat, A., Muraoka, H., Peng, C.H., Peylin, P., Poulter, B., Shen, Z.H., Shi, X., Sitch, S., Tao, S., Tian, H.Q., Wu, X.P., Xu, M., Yu, G.R., Viovy, N., Zaehle, S., Zeng, N. & Zhu, B. 2012. The carbon budget of terrestrial ecosystems in East Asia over the last two decades. *Biogeosciences* 9: 3571-3586.
94. Sakalli, A. & Simpson, D. 2012. Towards the use of dynamic growing seasons in a chemical transport model. *Biogeosciences* 9: 5161-5179.
95. Scherstjanoi, M., Kaplan, J.O., Thürig, E. & Lischke, H. 2013. GAPPARD: a computationally efficient method of approximating gap-scale disturbance in vegetation models. *Geoscientific Model Development* 6: 1517-1542.
96. Schweiger, O., Heikkinen, R.K., Harpke, A., Hickler, T., Klotz, S., Kudrna, O., Kühn, I., Pöyry, J. & Settele, J. 2012. Increasing range mismatching of interacting species under global change is related to their ecological characteristics. *Global Ecology & Biogeography* 21: 88-99.

97. Tang, G., Beckage, B. & Smith, B. 2012. The potential transient dynamics of forests in New England under historical and projected future climate change. *Climatic Change* 114: 357-377.
98. Wolf, A., Lazzarotto, P. & Bugmann, H. 2012. The relative importance of land use and climatic change in Alpine catchments. *Climatic Change* 111: 297-300.
99. Ahlström, A., Smith, B., Lindström, J., Rummukainen, M. & Uvo, C.B. 2013. GCM characteristics explain the majority of uncertainty in projected 21st century terrestrial ecosystem carbon balance. *Biogeosciences* 10: 1517-1528.
100. Claesson, J. & Nycander, J. 2013. Combined effect of global warming and increased CO<sub>2</sub>-concentration on vegetation growth in water-limited conditions. *Ecological Modelling* 256: 23-30.
101. De Kauwe, M.G., Medlyn, B.E., Zaehle, S., Walker, A.P., Dietze, M.C., Hickler, T., Jain, A.K., Luo, Y., Parton, W.J., Prentice, I.C., Smith, B., Thornton, P.E., Wang, S., Wang, Y.-P., Wårlind, D., Weng, E., Crous, K.Y., Ellsworth, D.S., Hanson, P.J., Hyun-Seok, K., Warren, J.M., Oren, R. & Norby, R.J. 2013. Forest water use and water use efficiency at elevated CO<sub>2</sub>: a model-data intercomparison at two contrasting temperate forest FACE sites. *Global Change Biology* 19: 1759-1779.
102. Donmez, C., Berberoglu, S., Forrest, M., Cilek, A. & Hickler, T. 2013. Comparing process-based net primary productivity models in a Mediterranean watershed. *International Archives of the Photogrammetry, Remote Sensing & Spatial Information Sciences* 40: 67-74.
103. Elkin, C., Gutiérrez, A.G., Leuzinger, S., Manusch, C., Temperli, C., Raschke, L. & Bugmann, H. 2013. A 2°C warmer world is not safe for ecosystem services in the European Alps. *Global Change Biology* 19: 1827-1840.
104. Fang, K., Morris, J.L., Salonen, J.S., Miller, P.A., Renssen, H., Sykes, M.T. & Seppä, H. 2013. lasslop. *Journal of Quaternary Science* 28: 595-604.
105. Fisher, J.B., Sikka, M., Sitch, S., Ciais, P., Poulter, B., Galbraith, D., Lee, J.-E., Huntingford, C., Viovy, N., Zeng, N., Ahlström, A., Lomas, M., Levy, P.E., Frankenberg, C., Saatchi, S. & Malhi, Y. 2013. African tropical rainforest net carbon dioxide fluxes in the twentieth century. *Philosophical Transactions of the Royal Society Series B* 368: 20120376.
106. Gimmi, U., Poulter, B., Wolf, A., Portner, H., Weber, P. & Bürgi, M. 2013. Soil carbon pools in Swiss forests show legacy effects from historic forest litter raking. *Landscape Ecology* 28: 835-846.
107. Gritti, E.S., Duputié, A., Massol, F. & Chuine, I. 2013. Estimating consensus and associated uncertainty between inherently different species distribution models. *Methods in Ecology & Evolution* 4: 442-452.
108. Huntley, B., Allen, J.R.M., Barnard, P., Collingham, Y.C. & Holliday, P.R. 2013. Species distribution models indicate contrasting late-Quaternary histories for Southern and Northern Hemisphere bird species. *Global Ecology & Biogeography* 22: 277-288.
109. Gritti, E.S., Gaucherel, C., Crespo-Perez, M.V. & Chuine, I. 2013. How can model comparison help improving species distribution models? *PLoS ONE* 7: e68823.
110. Huntley, B., Allen, J.R.M., Collingham, Y.C., Hickler, T., Lister, A.M., Singarayer, J., Stuart, A.J., Sykes, M.T. & Valdes, P.J. 2013. Millennial climatic fluctuations are key to the structure of Last Glacial ecosystems. *PLoS ONE* 8: e61963.
111. Le Quéré, C., Andres, R.J., Boden, T., Conway, T., Houghton, R.A., House, J.I., Marland, G., Peters, G.P., van der Werf, G.R., Ahlström, A., Andrew, R.M., Bopp, L., Canadell, J.G., Ciais, P., Doney, S.C., Enright, C., Friedlingstein, P., Huntingford, C., Jain, A.K., Jourdain, C., Kato, E., Keeling, R.F., Klein Goldewijk, K., Levis, S., Levy, P., Lomas, M., Poulter, B., Raupach, M.R., Schwinger, J., Sitch, S., Stocker, B.D., Viovy, N., Zaehle, S. & Zeng, N. 2013. The global carbon budget 1959–2011. *Earth System Science Data* 5: 165-185.
112. Leuzinger, S., Manusch, C., Bugmann, H. & Wolf, A. 2013. A sink-limited growth model improves biomass estimation along boreal and alpine tree lines. *Global Ecology & Biogeography* 22: 924-932.
113. Li, L., He, X., Hu, L. & Li, J. 2013. Simulation of the carbon cycle of *Larix chinensis* forest during 1958 and 2008 at Taibai Mountain, China. *Shengtai Xuebao / Acta Ecologica Sinica* 33: 2845-2855.
114. Lindeskog, M., Arneth, A., Bondeau, A., Waha, K., Seaquist, J., Olin, S. & Smith, B. 2013. Implications of accounting for land use in simulations of ecosystem carbon cycling in Africa. *Earth System Dynamics* 4: 385-407.
115. Molinari, C., Lehsten, V., Bradshaw, R.H.W., Power, M.J., Harmand, P., Arneth, A., Kaplan, J.O., Vannière, B. & Sykes, M.T. 2013. Exploring potential drivers of European biomass burning over the Holocene: a data-model analysis. *Global Ecology & Biogeography* 22: 1248–1260.

116. Murray-Tortarolo, G., Anav, A., Friedlingstein, P., Sitch, S., Piao, S., Zhu, Z., Poulter, B., Zaehle, S., Ahlström, A., Lomas, M., Levis, S., Viovy, N. & Zeng, N. 2013. Evaluation of land surface models in reproducing satellite-derived LAI over the high-latitude Northern Hemisphere. Part I: uncoupled DGVMs. *Remote Sensing* 5: 4819-4838.
117. Pachzelt, A, Rammig, A, Higgins, S & Hickler, T. 2013. Coupling a physiological grazer population model with a generalized model for vegetation dynamics. *Ecological Modelling* 263: 92-102.
118. Pappas, C., Faticchi, S. Leuzinger, S., Wolf, A. & Burlando, P. 2013, Sensitivity analysis of a process-based ecosystem model: Pinpointing parameterization and structural issues, *Journal of Geophysical Research—Biogeosciences* 118: 505–528.
119. Parmentier, F.J.W., Christensen, T.R., Sørensen, L.L., Rysgaard, S., McGuire, A.D., Miller, P.A. & Walker, D.A. 2013. The impact of lower sea ice extent on Arctic greenhouse-gas exchange. *Nature Climate Change* 3: 195-202.
120. Peng, X., Cheng, R., Xiao, W., Wang, R., Wang, X. & Liu, Z. 2013 Productivity and carbon dynamic of the masson pine stands in Jigongshan region based on LPJ-GUESS model. *Scientia Silvae Sinicae* 49: 7–8.
121. Piao, S.L., Sitch, S., Ciais, P., Friedlingstein, P., Peylin, P., Wang, X.H., Ahlström, A., Anav, A., Canadell, J.G., Cong, N., Huntingford, C., Jung, M., Levis, S., Levy, P.E., Li, J.S., Lin, X., Lomas, M.R., Lu, M., Luo, Y.Q., Ma, Y.C., Myneni, R.B., Poulter, B., Sun, Z.Z., Wang, T., Viovy, N., Zaehle, S. & Zeng, N. 2013. Evaluation of terrestrial carbon cycle models for their response to climate variability and to CO<sub>2</sub> trends. *Global Change Biology* 19: 2117-2132.
122. Snell, R.S., Cowling, S.A. & Smith, B. 2013. Simulating regional vegetation-climate dynamics for Middle America: tropical versus temperate applications. *Biotropica* 45: 567-577.
123. Zhang, W., Miller, P.A., Smith, B., Wania, R., Koenigk, T. & Döscher, R. 2013. Tundra shrubification and tree-line advance amplify arctic climate warming: results from an individual-based dynamic vegetation model. *Environmental Research Letters* 8: 034023.
124. Zhao, M., Yue, T., Zhao, N. & Sun, X. 2013. Spatial distribution of forest vegetation carbon stock in China based on HASM. *Dili Xuebao / Acta Geographica Sinica* 68: 1212-1224.
125. Acosta Navarro, J.C., Smolander, S., Struthers, H., Zorita, E., Ekman, A.M.L., Kaplan, J.O., Guenther, A., Armeth, A. & Riipinen, I. 2014. Global emissions of terpenoid VOCs from terrestrial vegetation in the last millennium. *Journal of Geophysical Research—Atmospheres* 119: 6867-6885.
126. Davies, W. 2014. Palaeoanthropology: The time of the last Neanderthals. *Nature* 512: 260-261.
127. De Kauwe, M.G., Medlyn, B.E., Zaehle, S., Walker, A.P., Dietze, M.C., Wang, Y.-P., Luo, Y., Jain, A.K., El-Masri, B., Hickler, T., Wärlind, D., Weng, E., Parton, W.J., Thornton, P.E., Wang, S., Prentice, I.C., Asao, S., Smith, B., McCarthy, J.M., Iversen, C.M., Hanson, P.J., Warren, J.M., Oren, R. & Norby, R.J. 2014. Where does the carbon go? A model-data intercomparison of vegetation carbon allocation and turnover processes at two temperate forest free-air CO<sub>2</sub> enrichment sites. *New Phytologist* 203: 883-899.
128. Duputié, A., Zimmermann, N.E. & Chuine, I. 2014. Where are the wild things? Why we need better data on species distribution. *Global Ecology & Biogeography* 23: 457-467.
129. Fisher, J. B., Sikka, M., Oechel, W. C., Huntzinger, D. N., Melton, J. R., Koven, C. D., Ahlström, A., Arain, A. M., Baker, I., Chen, J. M., Ciais, P., Davidson, C., Dietze, M., El-Masri, B., Hayes, D., Huntingford, C., Jain, A., Levy, P. E., Lomas, M. R., Poulter, B., Price, D., Sahoo, A. K., Schaefer, K., Tian, H., Tomelleri, E., Verbeeck, H., Viovy, N., Wania, R., Zeng, N. & Miller, C. E.. 2014. Carbon cycle uncertainty in the Alaskan Arctic. *Biogeosciences* 11: 4271-4288.
130. Lehsten, D., Dullinger, S., Hülber, K., Schurgers, G., Cheddadi, R., Laborde, H., Lehsten, V., Francois, L., Dury, M. & Sykes, M.T. 2014. Modelling the Holocene migrational dynamics of *Fagus sylvatica* L. and *Picea abies* (L.) H. Karst. *Global Ecology & Biogeography* 23: 658-668.
131. Manusch, C., Bugmann, H. & Wolf, A. 2014. Sensitivity of simulated productivity to soil characteristics and plant water uptake along drought gradients in the Swiss Alps. *Ecological Modelling* 282: 25-34.
132. Manusch, C., Bugmann, H. & Wolf, A. 2014. The impact of climate change and its uncertainty on carbon storage in Switzerland. *Regional Environmental Change* 14: 1437-1450.
133. Omstedt, A., Humborg, C., Pempkowiak, J., Perttilä, M., Rutgersson, A., Schneider, B. & Smith, B. 2014. Biogeochemical control of the coupled CO<sub>2</sub>-O<sub>2</sub> system of the Baltic Sea: A review of the results of Baltic-C. *Ambio* 43: 49-59.

134. Parazoo, N.C., Bowman, K., Fisher, J.B., Frankenberg, C., Jones, D.B.A., Cescatti, A., Pérez-Priego, Ó., Wohlfart, G. & Montagnani, L. 2014. Terrestrial gross primary production inferred from satellite fluorescence and vegetation models. *Global Change Biology* 20: 3103-3121.
135. Piao, S., Nan, H., Huntingford, C., Ciais, P., Friedlingstein, P., Sitch, S., Peng, S., Ahlström, A., Canadell, J.G., Cong, N., Levis, S., Levy, P.E., Liu, L., Lomas, M.R., Mao, J., Myneni, R., Peylin, P., Poulter, B., Shi, X., Yin, G., Viogy, N., Wang, T., Wang, X., Zaehle, S., Zeng, N., Zeng, Z. & Chen, A. 2014. Evidence for a weakening relationship between interannual temperature variability and northern vegetation activity. *Nature Communications* 5: 5018.
136. Piontek, F., Müller, C., Pugh, T.A.M., Clark, D., Deryng, D., Elliot, J., Colón-González, F.J., Flörke, M., Folberth, C., Franssen, W., Frieler, K., Friend, A.D., Goslin, S.N., Hemming, D., Khabarov, N., Kim, H., Lomas, M., Masaki, Y., Mengel, M., Morse, A., Neumann, K., Nishina, K., Ostberg, S., Pavlick, R., Ruane, A.C., Schewe, J., Schmid, E., Stacke, T., Tang, Q., Tessler, Z., Tompkins, A.M., Warszawski, L., Wisser, D. & Schnellhuber, H.J. 2014. Multisectorial climate impact hotspots in a warming world. *Proceedings of the National Academy of Sciences USA* 111: 3233-3238.
137. Pirzamanbein, B., Lindström, J., Poska, A., Sugita, S., Trondman, A.-K., Fyfe, R., Mazier, F., Nielsen, A.B., Kaplan, J.O., Bjune, A.E., Birks, H.J.B., Giesecke, T., Kangur, M., Latalowa, M., Marquer, L., Smith, B. & Gaillard, M.-J. 2014. Creating spatially continuous maps of past land cover from point estimates: a new statistical approach applied to pollen data. *Ecological Complexity* 20: 127-141.
138. Rosenzweig, C., Elliot, J., Deryng, D., Ruane, A.C., Arneth, A., Boote, K. J., Folberth, C., Glotter, M., Khabarov, N., Müller, C., Neumann, K., Piontek, F., Pugh, T.A.M., Schmid, E., Stehfest, E. & Jones, J.W. 2014. Assessing agricultural risks of climate change in the 21st century in a global gridded crop model intercomparison. *Proceedings of the National Academy of Sciences USA* 111: 3268-3273.
139. Scherstjanoi, M., Kaplan, J.O. & Lischke, H. 2014. Application of a computationally efficient method to approximate gap model results with a probabilistic approach. *Geoscientific Model Development* 7: 1543-1571.
140. Scherstjanoi, M., Kaplan, J.O., Poulter, B. & Lischke, H. 2014. Challenges in developing a computationally efficient plant physiological height-class-structured forest model. *Ecological Complexity* 19: 96-110.
141. Seiler, C., Hutjes, R.W.A., Kruit, B., Quispe, J., Añez, S., Arora, V.K., Melton, J.R., Hickler, T. & Kabat, P. 2014. Modeling forest dynamics along climate gradients in Bolivia. *Journal of Geophysical Research—Biogeosciences* 119: 758-775.
142. Sindelarova, K., Granier, C., Bouarar, I., Guenther, A., Tilmes, S., Stavrakou, T., Müller, J.-F., Kuhn, U., Stefani, P. & Knorr, W. 2014. Global dataset of biogenic VOC emissions calculated by the MEGAN model over the last 30 years. *Atmospheric Chemistry & Physics* 14: 9317-9341.
143. Smith, B., Wårlind, D., Arneth, A., Hickler, T., Leadley, P., Siltberg, J. & Zaehle, S. 2014. Implications of incorporating N cycling and N limitations on primary production in an individual-based dynamic vegetation model. *Biogeosciences* 11: 2027-2054.
144. Snell, R.S. 2014. Simulating long-distance seed dispersal in a dynamic vegetation model. *Global Ecology & Biogeography* 23: 89-98.
145. Strandberg, G., Kjellström, E., Poska, A., Wagner, S., Gaillard, M.-J., Trondman, A.-K., Mauri, A., Davis, B.A.S., Kaplan, J.O., Birks, H.J. B., Bjune, A.E., Fyfe, R., Giesecke, T., Kalnina, L., Kangur, M., van der Knaap, W.O., Kokfelt, U., Kunes, P., Latalowa, M., Marquer, L., Mazier, F., Nielsen, A.B., Smith, B., Seppä, H. & Sugita, S. 2014. Regional climate model simulations for Europe at 6 and 0.2 k BP: sensitivity to changes in anthropogenic deforestation. *Climate of the Past* 10: 661-680.
146. Tang, G., Beckage, B. & Smith, B. 2014. Potential future dynamics of carbon fluxes and pools in New England forests and their climatic sensitivities: a model-based study. *Global Biogeochemical Cycles* 28: 286-299.
147. Tang, J., Pilesjö, P., Miller, P.A., Persson, A., Yang, Z., Hanna, E. & Callaghan, T.V. 2014. Incorporating topographic indices into dynamic ecosystem modelling using LPJ-GUESS. *Ecohydrology* 7: 1147-1162.
148. Valentini, R., Arneth, A., Bombelli, A., Castaldi, S., Cazzolla Gatti, R., Chevallier, F., Ciais, P., Grieco, E., Hartmann, J., Henry, M., Houghton, R.A., Jung, M., Kutsch, W.L., Malhi, Y., Mayorga, E., Merbold, L., Murray-Tortarolo, G., Papale, D., Peylin, P., Poulter, B., Raymond, P.A., Santini, M., Sitch, S., Vaglio Laurin, G., van der Werf, G.R., Williams, C.A. & Scholes, R.J. 2014. A full greenhouse gases budget of Africa: synthesis, uncertainties, and vulnerabilities. *Biogeosciences* 11: 381-407.



149. Walker, A.P., Hanson, P.J., De Kauwe, M.G., Medlyn, B.E., Zaehle, S., Asao, S., Dietze, M., Hickler, T., Huntingford, C., Iversen, C.M., Jain, A., Lomas, M., Luo, Y., McCarthy, H., Parton, W.J., Prentice, I.C., Thornton, P.E., Wang, S., Wang, Y.-P., Wårlind, D., Weng, E., Warren, J.M., Woodward, F.I., Oren, R. & Norby, R.J. 2014. Comprehensive ecosystem model-data synthesis using multiple data sets at two temperate free-air CO<sub>2</sub> enrichment experiments: model performance at ambient CO<sub>2</sub> concentration. *Journal of Geophysical Research—Biogeosciences* 119: 937-964.
150. Wårlind, D., Smith, B., Hickler, T. & Arneth, A. 2014. Nitrogen feedbacks increase future terrestrial ecosystem carbon uptake in an individual-based dynamic vegetation model. *Biogeosciences* 11: 6131-6146.
151. Weiss M., Miller, P., van den Hurk B., van Noije, T., Stefanescu, S., Haarsma, R., van Ulft, L.H., Hazeleger, W., Le Sager, P., Smith, B. & Schurgers, G. 2014. Contribution of dynamic vegetation phenology to decadal climate predictability. *Journal of Climate* 27: 8563-8577.
152. Zhang, W., Jansson, C., Miller, P.A., Smith, B. & Samuelsson, P. 2014. Biogeophysical feedbacks enhance Arctic terrestrial carbon sink in regional Earth system dynamics. *Biogeosciences* 11: 5503-5519.
153. Zaehle, S., Medlyn, B.E., De Kauwe, M.G., Walker, A.P., Dietze, M.C., Hickler, T., Luo, Y., Wang, Y.-P., El-Masri, B., Thornton, P., Jain, A., Wang, S., Warlind, D., Weng, E., Parton, W., Iversen, C.M., Gallet-Budynek, A., McCarthy, H., Finzi, A., Hanson, P.J., Prentice, I.C., Oren, R. & Norby, R.J. 2014. Evaluation of 11 terrestrial carbon-nitrogen cycle models against observations from two temperate Free-Air CO<sub>2</sub> Enrichment studies. *New Phytologist* 202: 803-822.
154. Zhao, M., Tianxiang, Y., Zhao, N., Sun, X. & Zhang, X. 2014. Combining LPJ-GUESS and HASM to simulate the spatial distribution of forest vegetation carbon stock in China. *Journal of Geographical Sciences* 24: 249-268.
155. Zhou, F., Shang, Z., Ciais, P., Tao, S., Piao, S., Raymond, P., He, C., Li, B., Wang, R., Wang, X., Peng, S., Zeng, Z., Chen, H., Ying, N., Hou, X., Xu, P. 2014. A new high-resolution N<sub>2</sub>O emission inventory for China in 2008. *Environmental Science & Technology* 48: 8538-8547.
156. Ahlström, A., Raupach, M.R., Schurgers, G., Smith, B., Arneth, A., Jung, M., Reichstein, M., Canadell, J.P., Friedlingstein, P., Jain, A.K., Kato, E., Poulter, B., Sitch, S., Stocker, B.D., Viovy, N., Wang, Y.-P., Wiltshire, A., Zaehle, S. & Zeng, N. 2015. The dominant role of semi-arid ecosystems in the trend and variability of the land CO<sub>2</sub> sink. *Science* 348: 895-899.
157. Ahlström, A., Xia, J., Arneth, A., Luo, Y.Q. & Smith, B. 2015. Importance of vegetation dynamics for future terrestrial ecosystem carbon cycling. *Environmental Research Letters* 10, 054019.
158. Ardö, J. 2015. Comparison between remote sensing and a dynamic vegetation model for estimating terrestrial primary production of Africa. *Carbon Balance & Management* 10: 8.
159. Baudena, M., Dekker, S.C., van Bodegom, P.M., Cuesta, B., Higgins, S.I., Lehsten, V., Reick, C.H., Rietkerk, M., Scheiter, S., Yin, Z., Zavala, M.A. & Brovkin, V. 2015. Forests, savannas, and grasslands: bridging the knowledge gap between ecology and Dynamic Global Vegetation Models. *Biogeosciences* 12: 1833-1848.
160. Bayer, A.D., Pugh, T.A.M., Krause, A. & Arneth, A. 2015. Historical and future quantification of terrestrial carbon sequestration from a Greenhouse-Gas-Value perspective. *Global Environmental Change* 32: 153-164.
161. Blanc, E. & Sultan, B. 2015. Emulating maize yields from global gridded crop models using statistical estimates. *Agricultural & Forest Meteorology* 214-215: 134-147.
162. D'Andrea, S.D., Acosta Navarro, J.C., Farina, S.C., Scott, C.E., Rap, A., Farmer, D.K., Spracklen, D.V., Riipinen, I. & Pierce, J.R. 2015. Aerosol size distribution and radiative forcing response to anthropogenically driven historical changes in biogenic secondary organic aerosol formation. *Atmospheric Chemistry & Physics* 15: 2247-2268.
163. Ekici, A., Chadburn, S., Chaudhary, N., Hajdu, L. H., Marmy, A., Peng, S., Boike, J., Burke, E., Friend, A. D., Hauck, C., Krinner, G., Langer, M., Miller, P. A. & Beer, C. 2015. Site-level model intercomparison of high latitude and high altitude soil thermal dynamics in tundra and barren landscapes. *The Cryosphere* 9: 1343-1361.
164. Elliott, J., Deryng, D., Müller, C., Frieler, K., Konzmann, M., Gerten, D., Glotter, M., Flörke, M., Wada, Y., Best, N., Eisner, S., Fekete, B.M., Folberth, C., Foster, I., Gosling, S. N., Haddeland, I., Khabarov, N., Ludwig, F., Masaki, Y., Olin, S., Rosenzweig, C., Ruane, A.C., Satoh, Y., Schmid, E., Stacke, T., Tang, Q. & Wisser, D. 2014. Constraints and potentials of future irrigation water availability on agricultural production under climate change. *Proceedings of the National Academy of Sciences USA* 111: 3239-3244.
165. Fang, K., Makkonen, R., Guo, Z., Zhao, Y. & Seppä, H. 2015. An increase in the biogenic aerosol concentration as a contributing factor to the recent wetting trend in Tibetan Plateau. *Scientific Reports* 5: 14628.

166. Fleischer, K., Wårlind, D., van der Molen, M.K., Rebel, K.T., Arneth, A., Erisman, J.W., Wassen, M.J., Smith, B., Gough, C.M., Margolis, H.A., Cescatti, A., Montagnani, L., Arain, A. & Dolman, A.J. 2015. Low historical nitrogen deposition effect on carbon sequestration in the boreal zone. *Journal of Geophysical Research—Biogeosciences* 120: 2542-2561.
167. Forrest, M., Eronen, J. T., Utescher, T., Knorr, G., Stepanek, C., Lohmann, G. & Hickler, T. 2015. Climate-vegetation modelling and fossil plant data suggest low atmospheric CO<sub>2</sub> in the late Miocene, *Climate of the Past* 11: 1701-1732.
168. Frank, D.C., Poulter, B., Saurer, M., Esper, J., Huntingford, C., Helle, G., Treydte, K., Zimmerman, N.E., Schleser, G.H., Ahlström, A., Ciais, P., Friedlingstein, P., Levis, S., Lomas, M., Sitch, S., Viovy, N., Andreu-Hayles, L., Bednarz, Z., Berninger, F., Boettger, T., D'Allesandro, C.M., Daux, V., Filot, M., Grabner, M., Gutierrez, E., Haupt, M., Hiltunen, E., Jungner, H., Kalela-Brundin, M., Krapiec, M., Leuenberger, M., Loader, N.J., Marah, H., Masson-Delmotte, V., Pazdur, A., Pawelczyk, S., Pierre, M., Planells, O., Pukiene, R., Reynolds-Henne, C.E., Rinne, K.T., Saracino, A., Sonninen, E., Stievenard, M., Switsur, V.R., Szczepanek, M., Szychowska-Krapiec, E., Todaro, L., Waterhouse, J.S. & Wiegand, M. 2015. Water-use efficiency and transpiration across European forests during the Anthropocene. *Nature Climate Change* 5: 579-583.
169. Hickler, T., Rammig, A. & Werner, C. 2015. Modelling CO<sub>2</sub> impacts on forest productivity. *Current Forestry Reports* 1: 69-80.
170. Holzwarth, F., Rüger, N. & Wirth, C. 2015. Taking a closer look: disentangling effects of functional diversity on ecosystem functions with a trait-based model across hierarchy and time. *Royal Society Open Science* 2: 140541.
171. Jönsson, A.M., Lagergren, F. & Smith, B. 2015. Forest management facing climate change—an ecosystem model analysis of adaptation strategies. *Mitigation & Adaptation Strategies for Global Change* 20: 201-220.
172. Kebede, A.S., Dunford, R., Mokrech, M., Audsley, E., Harrison, P.A., Holman, I.P., Nicholls, R.J., Rickebusch, S., Rounsevell, M.D.A., Sabaté, S., Sallaba, F., Sanchez, A., Savin, C., Trnka, M., Wimmer, F., 2015. Direct and indirect impacts of climate and socio-economic change in Europe: a sensitivity analysis for key land- and water-based sectors. *Climatic Change* 128, 261-277.
173. Lehsten, V., Arneth, A., Spessa, A., Thonicke, K. & Moustakas, A. 2015. The effect of fire on tree-grass coexistence in savannas: a simulation study. *International Journal of Wildland Fire* 25: 137-146.
174. Lehsten, V., Sykes, M.T., Scott, A.V., Tzanopoulos, J., Kallimanis, A., Mazaris, A., Verburg, P.H., Schulp, C.J.E., Potts, S.G. & Vogiatzakis, I. 2015. Disentangling the effects of land-use change, climate and CO<sub>2</sub> on projected European habitat types. *Global Ecology & Biogeography* 24: 653-663.
175. Medlyn, B.E., Zaehle, S., De Kauwe, M.G., Walker, A.P., Dietze, M.C., Hanson, P.J., Hickler, T., Jain, A.K., Luo, Y., Parton, W., Prentice, I.C., Thornton, P.E., Wang, S., Wang, Y.-P., Weng, E., Iversen, C.M., McCarthy, H.R., Warren, J.M., Oren, R. & Norby, R.J. 2015. Using ecosystem experiments to improve vegetation models. *Nature Climate Change* 5: 528-534.
176. Müller, C., Elliott, J., Chryssanthacopoulos, J., Deryng, D., Folberth, C., Pugh, T.A.M. & Schmid, E. 2015. Implications of climate mitigation for future agricultural production. *Environmental Research Letters* 10: 125004.
177. Olin, S., Lindeskog, M., Pugh, T.A.M., Schurgers, G., Wårlind, D., Mishurov, M., Zaehle, S., Stocker, B.D., Smith, B. & Arneth, A. 2015. Soil carbon management in large-scale Earth system modelling: implications for crop yields and nitrogen leaching. *Earth System Dynamics* 6: 745-768.
178. Olin, S., Schurgers, G., Lindeskog, M., Wårlind, D., Smith, B., Bodin, P., Holmér, J. & Arneth, A. 2015. Modelling the response of yields and tissue C : N to changes in atmospheric CO<sub>2</sub> and N management in the main wheat regions of western Europe. *Biogeosciences* 12: 2489-2515.
179. Pappas, C., Faticchi, S., Rimkus, S., Burlando, P. & Huber, M.O. 2015. The role of local-scale heterogeneities in terrestrial ecosystem modeling. *Journal of Geophysical Research—Biogeosciences* 120: 341-360.
180. Pachzelt, A., Forrest, M., Rammig, A., Higgins, S.I. & Hickler, T. 2015. Potential impact of large ungulate grazers on African vegetation, carbon storage and fire regimes. *Global Ecology & Biogeography* 24: 991-1002.
181. Parmentier, F.W., Zhang, W., Mi, Y., Zhu, X., van Huissteden, J., Hayes, D.J., Zhuang, Q., Christensen, T.R. & McGuire, A.D. 2015. Rising methane emissions from northern wetlands associated with sea ice decline. *Geophysical Research Letters* 42: 7214-7222.
182. Peng, S., Ciais, P., Chevalier, F., Peylin, P., Cadule, P., Sitch, S., Piao, S., Ahlström, A., Huntingford, C., Levy, P., Li, X., Liu, Y., Lomas, M., Poulter, B., Viovy, N., Wang, T., Wang, X., Zaehle, S., Zeng, N., Zhao, F. & Zhao, H.

2015. Benchmarking the seasonal cycle of CO<sub>2</sub> fluxes simulated by terrestrial ecosystem models. *Global Biogeochemical Cycles* 29: 46-64.
183. Pirttioja, N., Carter, T.R., Fronzek, S., Bindi, M., Hoffmann, H., Palosuo, T., Ruiz-Ramos, M., Tao, F., Trnka, M., Acutis, M., Asseng, S., Baranowski, P., Basso, B., Bodin, P., Buis, S., Cammarano, D., Deligios, P., Destain, M.-F., Dumont, B., Ewert, F., Ferrise, R., François, L., Gaiser, T., Hlavinka, P., Jacquemin, I., Kersebaum, K.C., Kollas, C., Krzyszczyk, J., Lorite, I.J., Minet, J., Minguéz, M.I., Montesino, M., Moriondo, M., Müller, C., Nendel, C., Öztürk, I., Perego, A., Rodríguez, A., Ruane, A.C., Ruget, F., Sanna, M., Semenov, M.A., Slawinski, C., Stratonovitch, P., Supit, I., Waha, K., Wang, E., Wu, L., Zhao, Z. & Rötter, R.P. 2015. Temperature and precipitation effects on wheat yield across a European transect: a crop model ensemble analysis using impact response surfaces. *Climate Research* 65: 87-105.
184. Pugh, T.A.M., Arneth, A., Olin, S., Ahlström, A., Bayer, A.D., Goldewijk, K.K., Lindeskog, M. & Schurgers, G. 2015. Simulated carbon emissions from land-use change are substantially enhanced by accounting for agricultural management. *Environmental Research Letters* 12: 124008.
185. Rawlins, M.A., McGuire, A.D., Kimball, J.S., Dass, P., Lawrence, D., Burke, E., Chen, X., Delire, C., Koven, C., MacDougall, A., Peng, S., Rinke, A., Saito, K., Zhang, W., Alkama, R., Bohn, T. J., Ciais, P., Decharme, B., Gouttevin, I., Hajima, T., Ji, D., Krinner, G., Lettenmaier, D.P., Miller, P., Moore, J.C., Smith, B. & Sueyoshi, T. 2015. Assessment of model estimates of land-atmosphere CO<sub>2</sub> exchange across Northern Eurasia. *Biogeosciences* 12: 4385-4405.
186. Rayner, P.J., Stavert, A., Scholze, M., Ahlström, A., Allison, C.E. & Law, R.M. 2015. Recent changes in the global and regional carbon cycle: analysis of first-order diagnostics. *Biogeosciences* 12: 835-844.
187. Sallaba, F., Lehsten, D., Seaquist, J. & Sykes, M.T. 2015. A rapid NPP meta-model for current and future climate and CO<sub>2</sub> scenarios in Europe. *Ecological Modelling* 302: 29-41.
188. Seiler, C., Hutjes, R.W.A., Kruit, B. & Hickler, T. 2015. The sensitivity of wet and dry tropical forests to climate change in Bolivia. *Journal of Geophysical Research—Biogeosciences* 120: 399-413.
189. Seppä, H., Schurgers, G., Miller, P.A., Bjune, A.E., Giesecke, T., Kühl, N., Renssen, H. & Salonen, J.S. 2015. Trees tracking a warmer climate: the Holocene range shift of hazel (*Corylus avellana*) in Northern Europe. *The Holocene* 25: 53-63.
190. Sitch, S., Friedlingstein, P., Gruber, N., Jones, S.D., Murray-Tortarolo, G., Ahlström, A., Doney, S.C., Graven, H., Heinze, C., Huntingford, C., Levis, S., Levy, P.E., Lomas, M., Poulter, B., Viovy, N., Zaehle, S., Zeng, N., Arneth, A., Bonan, G., Bopp, L., Canadell, J.G., Chavallier, F., Ciais, P., Ellis, R., Gloor, M., Peylin, P., Piao, S.L., Le Quéré, C., Smith, B., Zhu, Z. & Myneni, R. 2015. Recent trends and drivers of regional sources and sinks of carbon dioxide. *Biogeosciences* 12: 653-679.
191. Snell, R.S., & Cowling, S.A. 2015. Consideration of dispersal processes and northern refugia can improve our understanding of past plant migration rates in North America. *Journal of Biogeography* 42: 1677-1688.
192. Steinkamp, J. & Hickler, T. 2015. Is drought-induced forest dieback globally increasing? *Journal of Ecology* 103: 31-43.
193. Sudarchikova, N., Mikolajewicz, U., Timmreck, C., O'Donnell, D., Schurgers, G., Sein, D. & Zhang, K. 2015. Modelling of mineral dust for interglacial and glacial climate conditions with a focus on Antarctica. *Climate of the Past* 11: 765-779.
194. Tang, J., Miller, P.A., Persson, A., Olefeldt, D., Pilesjö, P., Heliasz, M., Jackowicz-Korczynski, M., Yang, Z., Smith, B., Callaghan, T.V. & Christensen, T.R. 2015. Carbon budget estimation of a subarctic catchment using a dynamic ecosystem model at high spatial resolution. *Biogeosciences* 12: 2791-2808.
195. Tang J., Miller P.A., Crill P.M., Olin S. & Pilesjö P. 2015. Investigating the influence of two different flow routing algorithms on soil–water–vegetation interactions using the dynamic ecosystem model LPJ-GUESS. *Ecohydrology* 8: 570-583.
196. Vermeulen, M.H., Kruijt, B.J., Hickler, T. & Kabat, P. 2015. Modelling short-term variability in carbon and water exchange in a temperate Scots pine forest. *Earth System Dynamics* 6: 485-503.
197. Walker A.P., Zaehle S., Medlyn B.E., De Kauwe M.G., Asao S., Hickler T., Parton W., Ricciuto D., Wang, Y.P., Wårlind D. & Norby R.J. 2015. Predicting long-term carbon sequestration in response to CO<sub>2</sub> enrichment: how and why do current ecosystem models differ? *Global Biogeochemical Cycles* 29: 476-495.

198. Wu, M., Knorr, W., Thonicke, K., Schurgers, G., Camia, A. & Arneth, A. 2015. Sensitivity of burned area in Europe to climate change, atmospheric CO<sub>2</sub> levels, and demography: A comparison of two fire-vegetation models. *Journal of Geophysical Research – Biogeosciences*, 120: 2256-2272.
199. Yang, H., Piao, S., Zeng, Z., Ciais, P., Yin, Y., Friedlingstein, P., Sitch, S., Ahlström, A., Guimberteau, M., Huntingford, C., Levis, S., Levy, P.E., Huang, M., Li, Y., Li, X., Lomas, M.R., Peylin, P., Poulter, B., Viovy, N., Zaehle, S., Zeng, N., Zhao, F. & Wang, L. 2015. Multicriteria evaluation of discharge simulation in Dynamic Global Vegetation Models. *Journal of Geophysical Research* 120: 7488-7505.
200. Zeng, G., Williams, J.E., Fisher, J.A., Emmons, L.K., Jones, N.B., Morgenstern, O., Robinson, J., Smale, D., Paton-Walsh, C. & Griffith, D.W.T. 2015. Multi-model simulation of CO and HCHO in the Southern Hemisphere: comparison with observations and impact of biogenic emissions. *Atmospheric Chemistry & Physics* 15: 7217-7245.
201. Allen, K.A., Lehsten, V., Hale, K. & Bradshaw, R. 2016. Past and future drivers of an unmanaged carbon sink in European temperate forest. *Ecosystems* 19: 545-554.
202. Arneth, A., Makkonen, R., Olin, S., Paasonen, P., Holst, T., Kajos, M.K., Kulmala, M., Maximov, T., Miller, P.A. & Schurgers, G. 2016. Future vegetation–climate interactions in eastern siberia: an assessment of the competing effects of CO<sub>2</sub> and secondary organic aerosols. *Atmospheric Chemistry & Physics* 16: 5243–5262.
203. Bancroft, B.A., Lawler, J.J. & Schumaker, N.H. 2016. Weighing the relative potential impacts of climate change and land-use change on an endangered bird. *Ecology & Evolution* 6: 4468-4477.
204. Blanke, J.H., Lindeskog, M., Lindström, J. & Lehsten, V. 2016. Effect of climate data on simulated carbon and nitrogen balances for Europe. *Journal of Geophysical Research—Biogeosciences* 121: 1352-1371.
205. Bodin, P., Olin, S., Pugh, T.A.M. & Arneth, A. 2016. Accounting for interannual variability in agricultural intensification: The potential of crop selection in Sub-Saharan Africa. *Agricultural Systems* 148: 159-168.
206. Deryng, D., Elliott, J., Folberth, C., Muller, C., Pugh, T. A. M., Boote, K. J., Conway, D., Ruane, A. C., Gerten, D., Jones, J. W., Khabarov, N., Olin, S., Schaphoff, S., Schmid, E., Yang, H. & Rosenzweig, C. 2016. Regional disparities in the beneficial effects of rising CO<sub>2</sub> concentrations on crop water productivity. *Nature Climate Change* 6: 786–790.
207. Engström, K., Olin, S., Rounsevell, M.D.A., Brogaard, S., van Vuuren, D.P., Alexander, P., Murray-Rust, D. & Arneth, A. 2016. Assessing uncertainties in global cropland futures using a conditional probabilistic modelling framework. *Earth System Dynamics* 7: 893-915.
208. Fer, I., Tietjen, B. & Jeltsch, F. 2016. High-resolution modelling closes the gap between data and model simulations for Mid-Holocene and present-day biomes of East Africa. *Palaeogeography, Palaeoclimatology, Palaeoecology* 444: 144-151.
209. Knorr, W., Arneth, A. & Jiang, L. 2016. Demographic controls of future global fire risk. *Nature Climate Change* 6: 781-785.
210. Knorr, W., Dentener, F., Hantson, S., Jiang, L., Klimont, Z. & Arneth, A. 2016. Climate changes and wildfire emissions of atmospheric pollutants in Europe. *Atmospheric Chemistry & Physics* 16: 5685-5703.
211. Knorr, W., Jiang, L. & Arneth, A. 2016. Climate, CO<sub>2</sub> and human population impacts on global wildfire emissions. *Biogeosciences* 13: 267-282.
212. Krause, A., Pugh, T.A.M., Bayer, A.D. & Arneth, A. 2016. Impacts of land-use history on the recovery of ecosystems after agricultural abandonment. *Earth System Dynamics* 7: 745-766.
213. Leiblein-Wild, M.C., Steinkamp, J., Hickler, T. & Tackenberg, O. 2016. Modelling the potential distribution, net primary production and phenology of common ragweed with a physiological model. *Journal of Biogeography* 43: 544-554.
214. Liu, B., Asseng, S., Müller, C., Ewert, F., Elliott, J., Lobell, D.B., Martre, P., Ruane, A.C., Wallach, D., Jones, J.W., Rosenzweig, C., Aggarwal, P.K., Alderman, P.D., Anothai, J.A., Basso, B., Biernath, C., Cammarano, D., Challinor, A., Deryng, D., De Sanctis, G., Doltra, J., Tereres, E., Folberth, C., Garica-Vila, M., Gayler, S., Hoogenboom, G., Hunt, L.A., Izaurrealde, R.C., Jabloun, M., Jones, C.D., Kersebaum, K.C., Kimball, B.A., Koehler, A.-K., Kumar, S.N., Nendel, C., O’Leary, G., Olesen, J.E., Ottman, M.J., Palosuo, T., Vara Prasad, P. V., Priesack, E., Pugh, T.A.M., Peynolds, M., Rezaei, E.E., Rötter, R.P., Schmid, E., Semenov, M.A., Shcherbak, I., Stehfest, E., Stöckle, C.O., Stratonovitch, P., Streck, T., Supit, I., Tao, F., Thorburn, P., Waha, K., Wall, G.W., Wang, E., White, J.W., Wolf, J., Zhao, Z. & Zhu, Y. 2016. Similar estimate of temperature impacts on global wheat yield by three independent methods. *Nature Climate Change* 6: 1130-1136.

215. McGuire, A.D., Koven, C., Lawrence, D.M., Clein, J.S., Xia, J., Beer, C., Burke, E., Chen, G., Chen, X., Delire, C., Jafarov, E., MacDougall, A.H., Marchenko, S., Nicolsky, D., Peng, S., Rinke, A., Saito, K., Zhang, W., Alkama, R., Bohn, T.J., Ciais, P., Decharme, B., Ekici, A., Gouttevin, I., Hajima, T., Hayes, D.J., Ji, D., Krinner, G., Lettenmaier, D.P., Luo, Y., Miller, P.A., Moore, J.C., Romanovsky, V., Schädel, C., Schaefer, K., Schuur, E.A.G., Smith, B., Sueyoshi, T. & Zhuang, Q. 2016. Variability in the sensitivity among model simulations of permafrost and carbon dynamics in the permafrost region between 1960 and 2009. *Global Biogeochemical Cycles* 30, 1015-1037.
216. Medlyn, B.E., De Kauwe, M.G., Zaehle, S., Walker, A.P., Duursma, R.A., Luus, K., Mishurov, M., Pak, B., Smith, B., Wang, Y-P., Yang, X., Crous, K.Y., Drake, J.E., Gimeno, T.E., Macdonald C.A., Norby, R.J., Power, S.A., Tjoelker, M.G., & Ellsworth, D.S. 2016. Using models to guide field experiments: *a priori* predictions for the CO<sub>2</sub> response of a nutrient- and water-limited native Eucalypt woodland. *Global Change Biology* 22: 2834-2851.
217. Peng, S., Ciais, P., Krinner, G., Wang, T., Gouttevin, I., McGuire, A. D., Lawrence, D., Burke, E., Chen, X., Decharme, B., Koven, C., MacDougall, A., Rinke, A., Saito, K., Zhang, W., Alkama, R., Bohn, T. J., Delire, C., Hajima, T., Ji, D., Lettenmaier, D.P., Miller, P.A., Moore, J.C., Smith, B. & Sueyoshi, T. 2016. Simulated high-latitude soil thermal dynamics during the past 4 decades. *The Cryosphere* 10: 179-192.
218. Pugh, T.A.M., Müller, C., Arneith, A., Haverd, V. & Smith, B. 2016. Key knowledge and data gaps in modelling the influence of CO<sub>2</sub> concentration on the terrestrial carbon sink. *Journal of Plant Physiology* 203: 3-15.
219. Pugh, T., Müller, C., Elliott, J., Deryng, D., Folberth, C., Olin, S., Schmid, E. & Arneith, A. 2016. Climate analogues suggest limited potential for intensification of production on current croplands under climate change. *Nature Communications* 7: 12608.
220. Smith, P., House, J.I., Bustamante, M., Sobocká, J., Harper, R., Pan, G., West, P.C., Clark, J.M., Adhya, T., Rumpel, C., Paustian, K., Kuikman, P., Cotrufo, M.F., Elliott, J.A., McDowell, R., Griffiths, R.I., Asakawa, S., Bondeau, A., Jain, A.K., Meersmans, J. & Pugh, T.A.M. 2016. Global change pressures on soils from land use and management. *Global Change Biology* 22: 1008-1028.
221. Tang, J., Schurgers, G., Valolahti, H., Faubert, P., Tiiva, P., Michelsen, A. & Rinnan, R. 2016. Challenges in modelling isoprene and monoterpene emission dynamics of Arctic plants: a case study from a subarctic tundra heath. *Biogeosciences* 13: 6651-6667.
222. Vannièrè, B., Blarquez, O., Rius, D., Doyen, E., Brücher, T., Colombaroli, D., Connor, S., Feurdean, A., Hickler, T., Kaltenrieder, P., Lemmen, C., Leys, B., Massa, C. & Olofsson, J. 2016. 7000-year human legacy of elevation-dependent European fire regimes. *Quaternary Science Reviews* 132: 206-212.
223. Völker, M. & Nienhoop, N. 2016. Exploring group dynamics in deliberative choice experiments. *Ecological Economics* 123: 57-67.
224. Wang, W., Rinke, A., Moore, J.C., Cui, X., Ji, D., Li, Q., Zhang, N., Wang, C., Zhang, S., Lawrence, D.M., McGuire, A.D., Zhang, W., Delire, C., Koven, C., Saito, K., MacDougall, A., Burke, E. & Decharme, B. 2016. Diagnostic and model dependent uncertainty of simulated Tibetan permafrost area. *The Cryosphere* 10: 287-306.
225. Wang, W., Rinke, A., Moore, J.C., Ji, D., Cui, X., Peng, S., Lawrence, D.M., McGuire, A.D., Burke, E.J., Chen, X., Decharme, B., Koven, C., MacDougall, A., Saito, K., Zhang, W., Alkama, R., Bohn, T.J., Ciais, P., Delire, C., Gouttevin, I., Hajima, T., Krinner, G., Lettenmaier, D.P., Miller, P.A., Smith, B., Sueyoshi, T. & Sherstiukov, A.B. 2016. Evaluation of air–soil temperature relationships simulated by land surface models during winter across the permafrost region. *The Cryosphere* 10: 1721-1737.
226. Whitley, R., Beringer, J., Hutley, L. B., Abramowitz, G., De Kauwe, M. G., Duursma, R., Evans, B., Haverd, V., Li, L., Ryu, Y., Smith, B., Wang, Y.-P., Williams, M. & Yu, Q. 2016. A model inter-comparison study to examine limiting factors in modelling Australian tropical savannas. *Biogeosciences* 13: 3245-3265.
227. Wu, M., Schurgers, G., Rummukainen, M., Smith, B., Samuelsson, P., Jansson, C., Siltberg, J. & May, W., 2016. Vegetation-climate feedbacks modulate rainfall patterns in Africa under future climate change. *Earth System Dynamics* 7: 627-647.
228. 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. & Stocker, B.D. 2016. Precipitation and carbon-water coupling jointly control the interannual variability of global land gross primary production. *Scientific Reports* 6: 39748.
229. Zhang, Y., Xiao, X., Jin, C., Dong, J., Zhou, S., Wagle, P., Joiner, J., Guanter, L., Zhang, Y., Zhang, G., Qin, Y., Wang, J., Moore, B. III. 2016. Consistency between sun-induced chlorophyll fluorescence and gross primary production of vegetation in North America. *Remote Sensing of Environment* 183: 154-169.

230. Zhao, C., Piao, S., Wang, X., Huang, Y., Ciais, P., Elliott, J., Huang, M., Janssens, I.A., Li, T., Lian, X., Liu, Y., Müller, C., Peng, S., Wang, T., Zeng, Z. & Peñuelas, J. 2016. Plausible rice yield losses under future climate warming. *Nature Plants* 3: 16202.
231. Zhu, Z., Piao, S., Myneni, R.B., Huang, M., Zeng, Z., Canadell, J.G., Ciais, P., Sitch, S., Friedlingstein, P., Arneeth, A., Liu, R., Mao, J., Pan, Y., Peng, S., Peñuelas, J., Poulter, B., Pugh, T.A.M., Stocker, B.D., Viovy, N., Wang, X., Wang, Y., Xiao, Z., Yang, H., Zaehle, S. & Zeng, N. 2016. Greening of the Earth and its drivers. *Nature Climate Change* 6: 791-795.
232. Ahlström, A., Schurgers, G. & Smith, B. 2017. The large influence of climate model bias on terrestrial carbon cycle simulations. *Environmental Research Letters* 12: 014004.
233. Alessandri, A., Catalano, F., De Felice, M., van den Hurk, B., Reyes, F.D., Boussetta, S., Balsamo, G. & Miller, P.A. 2017. Multi-scale enhancement of climate prediction over land by increasing the model sensitivity to vegetation variability in EC-Earth. *Climate Dynamics* 49: 1215-1237.
234. Andela, N., Morton, D.C., Giglio, L., Chen, Y., van der Werf, G.R., Kasibhatla, P.S., DeFries, R.S., Collatz, G.J., Hantson, S., Kloster, S., Bachelet, D., Forrest M., Lasslop G., Li F., Mangeon S., Melton J.R., Yue C., & Randerson J.T. 2017. A human-driven decline in global burned area. *Science* 356: 1356-1362.
235. Arneeth, 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. & Zaehle, S. 2017. Historical carbon dioxide emissions caused by land-use changes are possibly larger than assumed. *Nature Geoscience* 10: 79.84.
236. Bayer, A.D., Lindeskog, M., Pugh, T.A.M., Anthoni, P.M., Fuchs, R. & Arneeth, A. 2017. Uncertainties in the land-use flux resulting from land-use change reconstructions and gross land transitions. *Earth System Dynamics* 8: 91-111.
237. Blanc, É. 2017. Statistical emulators of maize, rice, soybean and wheat yields from global gridded crop models. *Agricultural & Forest Meteorology* 236: 145-161.
238. Blanco, V., Brown, C., Holzhauser, S., Vulturius, G. & Rounsevell, M.D.A. 2017. The importance of socio-ecological system dynamics in understanding adaptation to global change in the forestry sector. *Journal of Environmental Management* 196: 36-47.
239. Blanke, J., Olin, S., Stürck, J., Sahlin, U., Lindeskog, M., Helming, J. & Lehsten, V. 2017. Assessing the impact of changes in land-use intensity and climate on simulated trade-offs between crop yield and nitrogen leaching. *Agriculture, Ecosystems & Environment* 239: 385–398.
240. Blanco, V., Holzhauser, S., Brown, C., Lagergren, F., Vulturius, G., Lindeskog, M. & Rounsevell, M.D.A. 2017. The effect of forest owner decision-making, climatic change and societal demands on land-use change and ecosystem service provision in Sweden. *Ecosystem Services* 23:174-208.
241. Braakhekke, M.C., Rebel, K.T., Dekker, S.C., Smith, B., Beusen, A.H.W. & Wassen, M.J. 2017. Nitrogen leaching from natural ecosystems under global change: a modelling study. *Earth System Dynamics* 8: 1121-1139.
242. Brandt, M., Rasmussen, K., Peñuelas, J., Tian, F., Schurgers, G., Verger, A., Mertz, O., Palmer, J.R.B. & Fensholt, R. 2017. Human population growth offsets climate-driven increase in woody vegetation in sub-Saharan Africa. *Nature Ecology & Evolution* 1: 0081.
243. Chang, J., Ciais, P., Wang, X., Piao, S., Asrar, G., Betts, R., Chevallier, F., Dury, M., Francois, L., Frieler, K., Garcia Cantu Ros, A., Henrot, A.-J., Hickler, T., Ito, A., Morfopoulos, C., Munhoven, G., Nishina, K., Ostberg, S., Pan, S., Peng, S., Rafique, R., Reyer, C., Rödenbeck, C., Schaphoff, S., Steinkamp, J., Tian, H., Viovy, N., Yang, J., Zeng, N. & Zhao, F. 2017. Benchmarking carbon fluxes of the ISIMIP2a biome models. *Environmental Research Letters* 12: 045002.
244. Chaudhary, N., Miller, P.A. & Smith, B. 2017. Modelling Holocene peatland dynamics with an individual-based vegetation model. *Biogeosciences* 14: 2571-2596.
245. Chaudhary, N., Miller, P.A. & Smith, B. 2017. Modelling past, present and future peatland carbon accumulation across the pan-Arctic region. *Biogeosciences* 14: 4023-4044.
246. Chen, M., Rafique, R., Asrar, G.R., Bond-Lamberty, B., Ciais, P., Zhao, F., Reyer, C.P.O., Ostberg, S., Chang, J., Ito, A., Yang, J., Zeng, N., Kalnay, E., West, T., Leng, G., Francois, L., Munhoven, G., Henrot, A., Tian, H., Pan, S., Nishina, K., Viovy, N., Morfopoulos, C., Betts, R., Schaphoff, S., Steinkamp, J. & Hickler, T. 2017. Regional contributions to variability and trends of global gross primary production. *Environmental Research Letters* 12, 10.

247. De Kauwe, M.G., Medlyn, B.E., Walker, A.P., Zaehle, S., Asao, S., Guenet, B., Harper, A.B., Hickler, T., Jain, A.K., Luo, Y. & Lu, X. 2017. Challenging terrestrial biosphere models with data from the long-term multifactor Prairie Heating and CO<sub>2</sub> Enrichment experiment. *Global Change Biology* 23: 3623-3645.
248. Engström, K., Lindeskog, M., Olin, S., Hassler, J. & Smith, B. 2017. Impacts of climate mitigation strategies in the energy sector on global land use and carbon balance. *Earth System Dynamics* 8: 773-799.
249. Fer, I., Tietjen, B., Jeltsch, F. & Trauth, M. H. 2017. Modelling vegetation change during Late Cenozoic uplift of the East African plateaus. *Palaeogeography, Palaeoclimatology, Palaeoecology* 467: 120-130.
250. Frieler, K., Schauburger, B., Arneth, A., Balkovic, J., Chryssanthacopoulos, J., Deryng, D., Elliott, J., Folberth, C., Khabarov, N., Müller, C., Olin, S., Pugh, T.A.M., Schaphoff, S., Schewe, J., Schmid, E., Warszawski, L. & Levermann, A. 2017. Understanding the weather signal in national crop-yield variability. *Earth's Future* 5: 605-616.
251. Green, E.L., Eigenbrod, F., Schreckenber, K. & Willcock, S. 2017. Modelling tree growth to determine the sustainability of current off-take from miombo woodland: a case study from rural villages in Malawi. *Environmental Conservation* 44: 66-73.
252. Hantson, S., Knorr, W., Schurgers, G., Pugh, T.A.M. & Arneth, A. 2017. Global isoprene and monoterpene emissions under changing climate, CO<sub>2</sub> and land use. *Atmospheric Environment* 155: 35-45.
253. Haverd, V., Ahlström, A., Smith, B. & Canadell, J.G. 2017. Carbon cycle responses of semi-arid ecosystems to positive asymmetry in rainfall. *Global Change Biology* 23: 793-800.
254. Ito, A., Nishina, K., Reyer, C.P.O., François, L., Henrot, A.-J., Munhoven, G., Jacquemin, I., Tian, H., Yang, J., Pan, S., Morfopoulos, C., Betts, R., Hickler, T., Steinkamp, J., Ostberg, S., Schaphoff, S., Ciais, P., Chang, J., Rafique, R., Zeng, N. & Zhao, F. 2017. Photosynthetic productivity and its efficiencies in ISIMIP2a biome models: benchmarking for impact assessment studies. *Environmental Research Letters* 12: 085001.
255. Jung, M., Reichstein, M., Schwalm, C.R., Huntingford, C., Sitch, S., Ahlström, A., Arneth, A., Camps-Valls, G., Ciais, P., Friedlingstein, P., Gans, F., Ichii, K., Jain, A.K., Kato, E., Papale, D., Poulter, B., Raduly, B., Rödenbeck, C., Tramontana, G., Viovy, N., Wang, Y.-P., Weber, U., Zaehle, S. & Zeng, N. 2017. Compensatory water effects link yearly global land CO<sub>2</sub> changes to temperature. *Nature* 541: 516-520.
256. Knorr, W., Dentener, F., Lamarque, J.-F., Jiang, L. & Arneth, A. 2017. Wildfire air pollution hazard during the 21st century. *Atmospheric Chemistry & Physics* 17: 9223-9236.
257. Krause, A., Pugh, T.A.M., Bayer, A.D., Doelman, J.C., Humpenöder, F., Anthoni, P., Olin, S., Bodirsky, B. L., Popp, A., Stehfest, E. & Arneth, A. 2017. Global consequences of afforestation and bioenergy cultivation on ecosystem service indicators. *Biogeosciences* 14, 4829-4850.
258. Lagergren, F. & Jönsson, A.M. 2017. Ecosystem model analysis of multi-use forestry in a changing climate. *Ecosystem Services* 26:209-224.
259. Lautenbach, S., Jungandreas, A., Blanke, J., Lehsten, V., Mühlner, S., Kühn, I. & Volk, M. 2017. Trade-offs between plant species richness and carbon storage in the context of afforestation – Examples from afforestation scenarios in the Mulde Basin, Germany. *Ecological Indicators* 73: 139-155.
260. Li, W., Ciais, P., Peng, S., Yue, C., Wang, Y., Thurner, M., Saatchi, S.S., Arneth, 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. & Zaehle, S. 2017. Land-use and land-cover change carbon emissions between 1901 and 2012 constrained by biomass observations. *Biogeosciences* 14: 5053-5067.
261. Marquer, L., Gaillard, M.-J., Sugita, S., Poska, A., Trondman, A.-K., Mazier, F., Nielsen, A.B., Fyfe, R.M., Jönsson, A.M., Smith, B., Kaplan, J.O., Alenius, T., Birks, H.J.B., Bjune, A.E., Christiansen, J., Dodson, J., Edwards, K.J., Giesecke, T., Herzsuh, U., Kangur, M., Koff, T., Latalowa, M., Lechterbeck, J., Olofsson, J. & Seppä, H. 2017. Quantifying the effects of land use and climate on Holocene vegetation in Europe. *Quaternary Science Reviews* 171: 20-37.
262. Müller, C., Elliott, J., Chryssanthacopoulos, J., Arneth, A., Balkovic, J., Ciais, P., Deryng, D., Folberth, C., Glotter, M., Hoek, S., Iizumi, T., Izaurralde, R. C., Jones, C., Khabarov, N., Lawrence, P., Liu, W., Olin, S., Pugh, T.A.M., Ray, D., Reddy, A., Rosenzweig, C., Ruane, A. C., Sakurai, G., Schmid, E., Skalsky, R., Song, C. X., Wang, X., de Wit, A. & Yang, H. 2017. Global gridded crop model evaluation: benchmarking, skills, deficiencies and implications. *Geoscientific Model Development* 10: 1403-1422.
263. Öström, E., Putian, Z., Schurgers, G., Mishurov, M., Kivekäs, N., Lihavainen, H., Ehn, M., Rissanen, M., Kurtén, T., Boy, M., Swietlicki, E. & Roldin, P. 2017. Modeling the role of highly oxidized multifunctional organic

- molecules for the growth of new particles over the boreal forest region. *Atmospheric Chemistry & Physics* 17: 8887-8901.
264. Porwollik, V., Müller, C., Elliott, J., Chryssanthacopoulos, J., Iizumi, T., Ray, D.K., Ruane, A.C., Arneth, A., Balkovič, J., Ciais, P., Deryng, D., Folberth, C., Izaurralde, R.C., Jones, C.D., Khabarov, N., Lawrence, P.J., Liu, W., Pugh, T.A.M., Reddy, A., Sakurai, G., Schmid, E., Wang, X., de Wit, A. & Wu, X. 2017. Spatial and temporal uncertainty of crop yield aggregations. *European Journal of Agronomy* 88: 10-21.
265. Prestele, R., Arneth, A., Bondeau, A., de Noblet-Ducoudré, N., Pugh, T.A.M., Sitch, S., Stehfest, E. & Verburg, P. H. 2017. Current challenges of implementing anthropogenic land-use and land-cover change in models contributing to climate change assessments. *Earth System Dynamics* 8: 369-386.
266. Rabin, S.S., Melton, J.R., Lasslop, G., Bachelet, D., Forrest, M., Hantson, S., Kaplan, J.O., Li, F., Mangeon, S., Ward, D.S., Yue, C., Arora, V.K., Hickler, T., Kloster, S., Knorr, W., Nieradzik, L., Spessa, A., Folberth, G.A., Sheehan, T., Voulgarakis, A., Kelley, D.I., Prentice, I.C., Sitch, S., Harrison, S. & Arneth, A. 2017. The Fire Modeling Intercomparison Project (FireMIP), phase 1: experimental and analytical protocols with detailed model descriptions. *Geoscientific Model Development* 10: 1175-1197.
267. Rollinson, C.R., Liu, Y., Raiho, A., Moore, D.J.P., McLachlan, J., Bishop, D.A., Dye, A., Matthes, J.H., Hessel, A., Hickler, T., Pederson, N., Poulter, B., Quaife, T., Schaefer, K., Steinkamp, J., Dietze, M.C. 2017. Emergent climate and CO<sub>2</sub> sensitivities of net primary productivity in ecosystem models do not agree with empirical data in temperate forests of eastern North America. *Global Change Biology* 23: 2755-2767.
268. Sallaba, F., Olin, S., Engström, K., Abdi, A.M., Boke-Olén, N., Lehsten, V., Ardö, J. & Seaquist, J. 2017. Future supply and demand of net primary production in the Sahel. *Earth System Dynamics* 8: 1191-1221.
269. Santos, M.J., Dekker, S.C., Daioglou, V., Braakhekke, M. & van Vuuren, D.P. 2017. Modeling the effects of future growing demand for charcoal in the tropics. *Frontiers in Environmental Science* 5: 28.
270. Schauburger, B., Archontoulis, S., Arneth, A., Balkovic, J., Ciais, P., Deryng, D., Elliott, J., Folberth, C., Khabarov, N., Mueller, C., Pugh, T.A.M., Rolinski, S., Schaphoff, S., Schmid, E., Wang, X., Schlenker, W., & Frieler, K. 2017. Consistent negative response of US crops to high temperatures in observations and crop models. *Nature Communications* 8: 13931.
271. Schibalski, A., Lehtonen, A., Hickler, T. & Schröder, B. 2017. Identifying important topics for model refinement in a widely used process-based model informed by correlative model analyses in a boreal forest. *Silva Fennica* 15: 6977.
272. Szogs, S., Arneth, A., Anthoni, P., Doelman, J. C., Humpenoeder, F., Popp, A., Pugh, T.A.M. & Stehfest, E. 2017. Impact of LULCC on the emission of BVOCs during the 21st century. *Atmospheric Environment* 165: 73-87.
273. van Marle, M.J.E., Kloster, S., Magi, B.I., Marlon, J.R., Daniau, A.-L., Field, R.D., Arneth, A., Forrest, M., Hantson, S., Kehrwald, N.M., Knorr, W., Lasslop, G., Li, F., Mangeon, S., Yue, C., Kaiser, J.W. & van der Werf, G. R. 2017. Historic global biomass burning emissions for CMIP6 (BB4CMIP) based on merging satellite observations with proxies and fire models (1750–2015). *Geoscientific Model Development* 10: 3329-3357.
274. Wu, M., Schurgers, G., Ahlström, A., Rummukainen, M., Miller, P.A., Smith, B. & May, W. 2017. Impacts of land use on climate and ecosystem productivity over the Amazon and the South American continent. *Environmental Research Letters* 12: 054016.
275. Wu, Z., Ahlström, A., Smith, B., Ardö, J., Eklundh, L., Fensholt, R. & Lehsten, V. 2017. Climate data induced uncertainty in model-based estimations of terrestrial primary productivity. *Environmental Research Letters* 12: 064013.
276. Xia, J., McGuire, A.D., Lawrence, D., Burke, E., Chen, G., Chen, X., Delire, C., Koven, C., MacDougall, A., Peng, S., Rinke, A., Saito, K., Zhang, W., Alkama, R., Bohn, T.J., Ciais, P., Decharme, B., Gouttevin, I., Hajima, T., Hayes, D.J., Huang, K., Ji, D., Krinner, G., Lettenmaier, D.P., Miller, P.A., Moore, J.C., Smith, B., Sueyoshi, T., Shi, Z., Yan, L., Liang, J., Jiang, L., Zhang, Q. & Luo, Y. 2017. Terrestrial ecosystem model performance in simulating productivity and its vulnerability to climate change in northern permafrost region. *Journal of Geophysical Research: Biogeosciences* 122: 430-446.
277. Zhao, Y., Liu, Y.L., Guo, Z.T., Fang, K.Y., Li, Q. & Cao, X.Y. 2017. Abrupt vegetation shifts caused by gradual climate changes in central Asia during the Holocene. *Science China—Earth Sciences* 60: 1317-1327.
278. Alexander, P., Rabin, S., Anthoni, P., Henry, R., Pugh, T.A.M., Rounsevell, M.D.A. & Arneth, A. 2018. Adaptation of global land use and management intensity to changes in climate and atmospheric carbon dioxide. *Global Change Biology* 24: 2791-2809.



279. Ardö, J., Tagesson, T., Jamali, S. & Khatir, A. 2018. MODIS EVI-based net primary production in the Sahel 2000-2014. *International Journal of Applied Earth Observation & Geoinformation* 65: 35-45.
280. Blanke, J., Boke-Olén, N., Olin, S., Chang, J., Sahlin, U., Lindeskog, M. & Lehsten, V. 2018. Implications of accounting for management intensity on carbon and nitrogen balances of European grasslands. *PLoS ONE* 13: e0201058.
281. Boke-Olén, N., Lehsten, V., Abdi, A.M., Ardö, J., Khatir, A.A. 2018. Estimating grazing potentials in Sudan using daily carbon allocation in Dynamic Vegetation Model. *Rangeland Ecology & Management* 71: 792-797.
282. Brandt, M., Wigneron, J.-P., Chave, J., Tagesson, T., Peñuelas, J., Ciais, P., Rasmussen, K., Tian, F., Mbow, C., Al-Yaari, A., Rodriguez-Fernandez, N., Schurgers, G., Zhang, W., Chang, J., Kerr, Y., Verger, A., Tucker, C., Mialon, A., Rasmussen, L.V., Fan, L. & Fensholt, R. 2018. Satellite passive microwaves reveal recent climate-induced carbon losses in African drylands. *Nature Ecology & Evolution* 2: 827-835.
283. Chaudhary, N., Miller, P.A. & Smith, B. 2018. Biotic and abiotic drivers of peatland growth and microtopography: a model demonstration. *Ecosystems* 21: 1196-1214.
284. Dass, P., Houlton, B.Z., Wang, Y. & Warlind, D. 2018. Grasslands may be more reliable carbon sinks than forests in California. *Environmental Research Letters* 13: 074027.
285. Fang, S., He, Z., Du, J., Chen, L., Lin, P. & Zhao, M. 2018. Carbon mass change and its drivers in a boreal coniferous forest in the Qilian Mountains, China from 1964 to 2013. *Forests* 9: 57.
286. Fisher, R., Koven, C.D., Anderegg, W.R.L., Christoffersen, B.O., Dietze, M.C., Farnier, C., Holm, J.A., Hurtt, G., Knox, R.G., Lawrence, P.J., Longo, M., Matheny, A.M., Medvigy, D., Muller-Landau, H.C., Powell, T.L., Serbin, S.P., Sato, H., Shuman, J., Smith, B., Trugman, A.T., Viskari, T., Verbeeck, H., Weng, E., Xu, C., Xu, X., Zhang, T. & Moorcroft, P. 2018. Vegetation demographics in Earth system models: a review of progress and priorities. *Global Change Biology* 24: 35-54.
287. Forzieri, G., Duveiller, G., Georgievski, G., Li, W., Robertson, E., Kautz, M., Lawrence, P., Garcia San Martin, L., Anthoni, P., Ciais, P., Pongratz, J., Sitch, S., Wiltshire, A., Arneth, A. & Cescatti, A. 2018. Evaluating the interplay between biophysical processes and leaf area changes in Land Surface Models. *Journal of Advances in Modeling Earth Systems* 10: 1102-1126.
288. Fronzek, S., Pirttioja, N., Carter, T.R., Bindi, M., Hoffmann, H., Palosuo, T., Ruiz-Ramos, M., Tao, F., Trnka, M., Acutis, M., Asseng, S., Baranowski, P., Basso, B., Bodin, P., Buis, S., Cammarano, D., Deligios, P., Destain, M.-F., Dumont, B., Ewert, F., Ferrise, R., François, L., Gaiser, T., Hlavinka, P., Jacquemin, I., Kersebaum, K.C., Kollas, C., Krzyszczak, J., Lorite, I.J., Minet, J., Minguuez, M.I., Montesino, M., Moriondo, M., Müller, C., Nendel, C., Öztürk, I., Perego, A., Rodríguez, A., Ruane, A.C., Ruget, F., Sanna, M., Semenov, M.A., Slawinski, C., Stratonovitch, P., Supit, I., Waha, K., Wang, E., Wu, L., Zhao, Z. & Rötter, R.P. 2018. Classifying multi-model wheat yield impact response surfaces showing sensitivity to temperature and precipitation change. *Agricultural Systems* 159: 209-224.
289. Hamilton, D.S., Hantson, S., Scott, C.E., Kaplan, J.O., Pringle, K.J., Nieradzik, L.P., Rap, A., Folberth, G.A., Spracklen, D.V. & Carslaw, K.S. 2018. Reassessment of pre-industrial fire emissions strongly affects anthropogenic aerosol forcing. *Nature Communications* 9: 3182.
290. Harper, A.B., Powell, T., Cox, P.M., House, J., Huntingford, C., Lenton, T.M., Sitch, S., Burke, E., Chadburn, S.E., Collins, W.J., Comyn-Platt, E., Daioglou, V., Doelman, J.C., Hayman, G., Robertson, E., van Vuuren, D., Wiltshire, A., Webber, C.P., Bastos, A., Boysen, L., Ciais, P., Devaraju, N., Jain, A.K., Krause, A., Poulter, B. & Shu, S. 2018. Land-use emissions play a critical role in land-based mitigation for Paris climate targets. *Nature Communications* 9: 2938.
291. Henry, R.C., Engström, K., Olin, S., Alexander, P., Arneth, A., Rounsevell, M.D.A. 2018. Food supply and bioenergy production within the global cropland planetary boundary. *PLoS ONE* 13: e0194695.
292. Huntley, B., Allen, J.R.M., Bennie, J., Collingham, Y.C., Miller, P.A. & Suggitt, A.J. 2018. Climatic disequilibrium threatens conservation priority forests. *Conservation Letters* 11: e12349.
293. Huo, X., Peng, S., Ren, J., Cao, Y. & Chen, Y. 2018. Dynamic change of *Pinus tabuliformis* forest productivity and its response to future climate change in Shaanxi Province, China. *Chinese Journal of Applied Ecology* 29: 412-420.
294. Jönsson, A.M. & Lagergren, F. 2018. Effects of climate and soil conditions on the productivity and defence capacity of *Picea abies* in Sweden—An ecosystem model assessment. *Ecological Modelling* 384: 154-167.
295. Kariuki, R., Willcock, S. & Marchant, R. 2018. Rangeland livelihood strategies under varying climate regimes: Model insights from Southern Kenya. *Land* 7: 47.

296. Kautz, M., Anthoni, P., Meddens, A.J.H., Pugh, T.A.M. & Arneeth, A. 2018. Simulating the recent impacts of multiple biotic disturbances on forest carbon cycling across the United States. *Global Change Biology* 24: 2079-2092.
297. Kondo, M., Ichii, K., Patra, P.K., Canadell, J.G., Poulter, B., Sitch, S., Calle, L., Liu, Y.Y., van Dijk, A.I.J.M., Saeki, T., Saigusa, N., Friedlingstein, P., Arneeth, A., Harper, A., Jain, A.K., Kato, E., Koven, C., Li, F., Pugh, T.A.M., Zaehle, S., Wiltshire, A., Chevallier, F., Maki, T., Nakamura, T., Niwa, Y. & Rödenbeck, C. 2018. Land use change and El Niño-Southern Oscillation drive decadal carbon balance shifts in Southeast Asia. *Nature Communications* 9: 1154.
298. Kondo, M., Ichii, K., Patra, P.K., Poulter, B., Calle, L., Koven, C., Pugh, T.A.M., Kato, E., Harper, A., Zaehle, S., Wiltshire, A. 2018. Plant regrowth as a driver of recent enhancement of terrestrial CO<sub>2</sub> uptake. *Geophysical Research Letters* 45: 4830-4830.
299. Krause, A., Pugh, T.A.M., Bayer, A.D., Li, W., Leung, F., Bondeau, A., Doelman, J.C., Humpenöder, F., Anthoni, P., Bodirsky, B.L., Ciais, P., Müller, C., Murray-Tortarolo, G., Olin, S., Popp, A., Sitch, S., Stehfast, E. & Arneeth, A. 2018. Large uncertainty in carbon uptake potential of land-based climate-mitigation efforts. *Global Change Biology* 24: 3025-3038.
300. 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., Lombardozzi, 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. & Zhu, D. 2018. Global Carbon Budget 2017. *Earth System Science Data* 10: 405-448.
301. Le Quéré, C., Andrew, R.M., Friedlingstein, P., Sitch, S., Hauck, J., Pongratz, J., Pickers, P.A., Korsbakken, J.I., Peters, G.P., Canadell, J.G., Arneeth, A., Arora, V.K., Barbero, L., Bastos, A., Bopp, L., Chevallier, F., Chini, L.P., Ciais, P., Doney, S.C., Gkrisalis, T., Goll, D.S., Harris, I., Haverd, V., Hoffmann, F.M., Hoppema, M., Houghton, R.A., Hurtt, G., Ilyina, T., Jain, A.K., Johannessen, T., Jones, C.D., Kato, E., Keeling, R.F., Klein Goldewijk, K., Landschützer, P., Lefèvre, N., Lienert, S., Liu, Z., Lombardozzi, D., Metzl, N., Munro, D.R., Nabel, J.E.M.S., Nakaoka, S.-I., Neill, C., Olsen, A., Ono, T., Patra, P., Peregon, A., Peters, W., Peylin, P., Pfeil, B., Pierrot, D., Poulter, B., Rehder, G., Resplandy, L., Robertson, E., Rocher, M., Rödenbeck, C., Schuster, U., Schwinger, J., Séférian, R., Skjelvan, I., Steinhoff, T., Sutton, A., Tans, P.P., Tian, H., Tilbrook, B., Tubiello, F. N., van der Laan-Luijkx, I. T., van der Werf, G. R., Viovy, N., Walker, A.P., Wiltshire, A.J., Wright, R., Zaehle, S. & Zheng, B. 2018. Global Carbon Budget 2018. *Earth System Science Data* 10: 2141-2194.
302. Liu, L., Peng, S., AghaKouchak, A., Huang, Y., Li, Y., Qin, D., Xie, A. & Li, S. 2018. Broad consistency between satellite and vegetation model estimates of Net Primary Productivity across global and regional scales. *Journal of Geophysical Research—Biogeosciences* 123: 3603-3616.
303. Lu, Z., Miller, P.A., Zhang, Q., Zhang, Q., Wårlind, D., Nieradzik, L., Sjolte, J. & Smith, B. 2018. Dynamic vegetation simulations of the Mid-Holocene Green Sahara. *Geophysical Research Letters* 45: 8294-8303.
304. Pellegrini, A.F.A., Ahlström, A., Hobbie, S.E., Reich, P.B., Nieradzik, L.P., Staver, C., Scharenbroch, B.C., Jumpponen, A., Anderegg, W.R.L., Randerson, J.T. & Jackson, R.B. 2018. Fire frequency drives decadal changes in soil carbon and nitrogen and ecosystem productivity. *Nature* 553: 194-198.
305. Peng, S. & Li, Z. 2018. Potential land use adjustment for future climate change adaptation in revegetated regions. *Science of the Total Environment* 639: 476-484.
306. Peters, W., van der Velde, I.R., van Schaik, E., Miller, J.B., Ciais, P., Duarte, H.F., van der Laan-Luijkx, I.T., van der Molen, M.K., Scholze, M., Schaefer, K., Vidale, P.L., Verhoef, A., Wårlind, D., Zhu, D., Tans, P.P., Vaughn, B. & White, J.C. 2018. Increased water-use efficiency and reduced CO<sub>2</sub> uptake by plants during droughts at a continental scale. *Nature Geoscience* 11: 744-748.
307. Piao, S., Huang, M., Liu, Z., Wang, X., Ciais, P., Canadell, J.G., Wang, K., Bastos, A., Friedlingstein, P., Houghton, R.A., Le Quéré, C., Liu, Y., Myneni, R.B., Peng, S., Pongratz, J., Sitch, S., Yan, T., Wang, Y., Zhu, Z., Wu, D. & Wang, T. 2018. Lower land-use emissions responsible for increased net land carbon sink during the slow warming period. *Nature Geoscience* 11: 739-743.

308. Pirzamanbein, B., Lindström, J., Poska, A. & Gaillard, M.-J. 2018. Modelling spatial compositional data: reconstructions of past land cover and uncertainties. *Spatial Statistics* 24: 14-31.
309. Pugh, T.A.M., Jones, C.D., Huntingford, C., Burton, C., Arneth, A., Brovkin, V., Ciais, P., Lomas, M., Robertson, E., Piao, S.L. & Sitch, S. 2018. A large committed long-term sink of carbon due to vegetation dynamics. *Earth's Future* 6: 1413-1432.
310. Robinson, D.T., Di Vittorio, A., Alexander, P., Arneth, A., Barton, C.M., Brown, D.G., Kettner, A., Lemmen, C., O'Neill, B.C., Janssen, M., Pugh, T.A.M., Rabin, S.S., Rounsevell, M., Syvitski, J.P., Ullah, I. & Verburg, P.H. 2018. Modelling feedbacks between human and natural processes in the land system. *Earth System Dynamics* 9: 895-914.
311. Ruiz-Ramos, M., Ferrise, A., Rodríguez, A., Lorite, I.J., Bindi, M., Carter, T.R., Fronzek, S., Palosuo, T., Pirttioja, N., Baranowski, P., Buis, S., Cammarano, D., Chen, Y., Dumont, B., Ewert, F., Gaiser, T., Hlavinka, P., Hoffmann, H., Höhn, J.G., Jurecka, F., Kersebaum, K.C., Krzyszczak, J., Lana, M., Mechiche-Alami, A., Minet, J., Montesino, M., Nendel, C., Porter, J.R., Ruget, F., Semenov, M.A., Steinmetz, Z., Stratonovitch, P., Supit, I., Tao, F., Trnka, M., deWit, A. & Rötter, R.P. 2018. Adaptation response surfaces for managing wheat under perturbed climate and CO<sub>2</sub> in a Mediterranean environment. *Agricultural Systems* 159: 260-274.
312. Schleussner, C.-F., Deryng, D., Müller, C., Elliott, Saeed, F., Folberth, C., Liu, W., Wang, X., Pugh, T.A.M., Thiery, W., Seneviratne, S.I., Rogelj, J. 2018. Crop productivity changes in 1.5° C and 2° C worlds under climate sensitivity uncertainty. *Environmental Research Letters* 13: 064007.
313. Schurgers, G., Ahlström, A., Arneth, A., Pugh, T.A.M. & Smith, B. 2018. Climate sensitivity controls uncertainty in future terrestrial carbon sink. *Geophysical Research Letters* 45: 4329-4336.
314. Strååt, K.D., Mörth, C.-M. & Undeman, E. 2018. Future export of particulate and dissolved organic carbon from land to coastal zones of the Baltic Sea. *Journal of Marine Systems* 177: 8-20.
315. Tang, J., Yurova, A.Y., Schurgers, G., Miller, P.A., Olin, S., Smith, B., Siewert, M.B., Olefeldt, D., Pilesjö, P. & Poska, A. 2018. Drivers of dissolved organic carbon export in a subarctic catchment: Importance of microbial decomposition, sorption-desorption, peatland and lateral flow. *Science of the Total Environment* 622-623: 260-274.
316. Tong, X., Brandt, M., Yue, Y., Horion, S., Wang, K., De Keersmaecker, W., Tian, F., Schurgers, G., Xiao, X., Luo, Y., Chen, C., Myneni, R., Shi, Z., Chen, H. & Fensholt, R. 2018. Increased vegetation growth and carbon stock in China karst via ecological engineering. *Nature Sustainability* 1: 44-50.
317. Treat, C., Marushchak, M., Voigt, C., Zhang, Y., Tan, Z., Zhuang, Q., Virtanen, T., Räsänen, A., Biasi, C., Hugelius, G., Kaverin, D., Miller, P.A., Stendel, M., Romanovsky, V., Rivkin, F., Martikainen, P. & Shurpali, N. 2018. Tundra landscape heterogeneity, not inter-annual variability, controls the decadal regional carbon balance in the Western Russian Arctic. *Global Change Biology* 24: 5188-5204.
318. Wang, Y., Porter, W., Mathewson, P.D., Miller, P.A., Graham, R.W. & Williams, J.W. 2018. Mechanistic modelling of environmental drivers of woolly mammoth carrying capacity declines on St. Paul Island. *Ecology* 99: 2721-2730.
319. Wartenburger, R., Seneviratne, S.I., Hirschi, M., Chang, J., Ciais, P., Deryng, D., Elliott, J., Folberth, C., Gosling, S.N., Gudmundsson, L., Henrot, A., Hickler, T., Ito, A., Khabarov, N., Kim, H., Leng, G., Liu, J., Liu, X., Masaki, Y., Morfopoulos, C., Müller, C., Müller Schmied, H., Nishina, K., Orth, R., Pokhrel, Y.N., Pugh, T., Satoh, Y., Schaphoff, S., Schmid, E., Sheffield, J., Stacke, T., Steinkamp, J., Tang, Q., Thiery, W., Wada, Y., Wang, X., Weedon, G. P., Yang, H. & Zhou, T. 2018. Evapotranspiration simulations in ISIMIP2a—Evaluation of spatio-temporal characteristics with a comprehensive ensemble of independent datasets. *Environmental Research Letters* 13: 075001.
320. Werner, C., Schmid, M., Ehlers, T.A., Fuentes-Espoz, J.P., Steinkamp, J., Forrest, M., Liakka, J., Maldonado, A. & Hickler, T. 2018. Effect of changing vegetation and precipitation on denudation – Part 1: Predicted vegetation composition and cover over the last 21 thousand years along the Coastal Cordillera of Chile. *Earth Surface Dynamics* 6: 829-858.
321. Wu, D., Ciais, P., Viovy, N., Knapp, A.K., Wilcox, K., Bahn, M., Smith, M.D., Vicca, S., Fatichi, S., Zscheischler, J., He, Y., Li, X., Ito, A., Arneth, A., Harper, A., Ukkola, A., Paschalis, A., Poulter, B., Peng, C., Ricciuto, D., Reinthaler, D., Chen, G., Tian, H., Genet, H., Mao, J., Ingrisch, J., Nabel, J.E.S.M., Pongratz, J., Boysen, L.R., Kautz, M., Schmitt, M., Meir, P., Zhu, Q., Hasibeder, R., Sippel, S., Dangal, S.R.S., Sitch, S., Shi, X., Wang, Y., Luo, Y., Liu, Y. & Piao, S. 2018. Asymmetric responses of primary productivity to altered precipitation simulated by ecosystem models across three long-term grassland sites, *Biogeosciences* 15: 3421-3437.
322. Wu, Z., Boke-Olén, N., Fensholt, R., Ardö, J., Eklundh, L. & Lehsten, V. 2018. Effect of climate dataset selection on simulations of terrestrial GPP: highest uncertainty for tropical regions. *PLoS ONE* 13: e0199383.

323. Zhang, W., Miller, P.A., Jansson, C., Samuelsson, P., Mao, J. & Smith, B. 2018 Self-amplifying feedbacks accelerate greening and warming of the Arctic. *Geophysical Research Letters* 45: 7102-7111.
324. Akperov, M., Rinke, A., Mokhov, I. I., Matthes, H., Semenov, V. A., Adakudlu, M., Cassano, J., Christensen, J.H., Dembitskaya, M.A., Dethloff, K., Fettweis, X., Gllasan, J., Gutjahr, O., Heinemann, G., Koenigk, T., Koldunov, N.V., Laprise, R., Mottram, R., Nikiéma, O., Parfenova, M., Scinocca, J.F., Sein, D., Sobolowski, S., Winger, K. & Zhang, W. 2019. Trends of intense cyclone activity in the Arctic from reanalyses data and regional climate models (Arctic-CORDEX). *IOP Conference Series: Earth and Environmental Science* 231: 012003.
325. Akperov, M., Rinke, A., Mokhov, I. I., Semenov, V. A., Parfenova, M. R., Matthes, H., Adakudlu, M., Boberg, F., Christensen, J. H., Dembitskaya, M. A., Dethloff, K., Fettweis, X., Gutjahr, O., Heinemann, G., Koenigk, T., Koldunov, N. V., Laprise, R., Mottram, R., Nikiéma, O., Sein, D., Sobolowski, S., Winger, K. & Zhang, W. 2019. Future projections of cyclone activity in the Arctic for the 21st century from regional climate models (Arctic-CORDEX). *Global & Planetary Change* 182: 103005.
326. Bagnara, M., Silveyra G., R., Reifenberg, S., Steinkamp, J., Hickler, T., Werner, C., Dormann, C.F. & Hartig, F. 2019. An R package facilitating sensitivity analysis, calibration and forward simulations with the LPJ-GUESS dynamic vegetation model. *Environmental Modelling & Software* 111: 55-60.
327. Boy, M., Thomson, E.S., Acosta Navarro, J.-C., Arnalds, O., Batchvarova, E., Bäck, J., Berninger, F., Bilde, M., Brasseur, Z., Dagsson-Waldhauserova, P., Castarède, D., Dalirian, M., de Leeuw, G., Dragosics, M., Duplissy, E.-M., Duplissy, J., Ekman, A.M.L., Fang, K., Gallet, J.-C., Glasius, M., Gryning, S.-E., Grythe, H., Hansson, H.-C., Hansson, M., Isaksson, E., Iversen, T., Jonsdottir, I., Kasurinen, V., Kirkevåg, A., Korhola, A., Krejci, R., Kristjansson, J.E., Lappalainen, H.K., Lauri, A., Leppäranta, M., Lihavainen, H., Makkonen, R., Massling, A., Meinander, O., Nilsson, E.D., Olafsson, H., Pettersson, J.B.C., Prisle, N.L., Riipinen, I., Roldin, P., Ruppel, M., Salter, M., Sand, M., Seland, Ø., Seppä, H., Skov, H., Soares, J., Stohl, A., Ström, J., Svensson, J., Swietlicki, E., Tabakova, K., Thorsteinsson, T., Virkkula, A., Weyhenmeyer, G. A., Wu, Y., Zieger, P. & Kulmala, M. 2019. Interactions between the atmosphere, cryosphere, and ecosystems at northern high latitudes. *Atmospheric Chemistry & Physics* 19: 2015-2061.
328. Bugmann, H., Seidl, R., Hartig, F., Bohn, F., Bruna, J., Cailleret, M., Francois, L., Heinke, J., Henrot, A.-J., Hickler, T., Hülsmann, L., Huth, A., Jacquemin, I., Kollas, C., Lasch-Born, P., Lexer, M.J., Merganic, J., Merganikova, K., Mette, T., Miranda, B.R., Nadal-Sala, D., Rammer, W., Rammig, R., Reineking, B., Roedig, E., Sabaté, S., Steinkamp, J., Suckow, F., Vacchiano, G., Wild, J., Xu, C. & Reyer, C.P.O. 2019. Tree mortality submodels drive simulated long-term forest dynamics: assessing 15 models from the stand to global scale. *Ecosphere* 10: e02616.
329. Chen, W., Zhu, D., Huang, C., Ciais, P., Yao, Y., Friedlingstein, P., Sitch, S., Haverd, V., Jain, A.K., Kato, E., Kautz, M., Lienert, S., Lombardozi, D., Poulter, B., Tian, H., Vuichard, N., Walker, A. & Zeng, N. 2019. Negative extreme events in gross primary productivity and their drivers in China during the past three decades. *Agricultural & Forest Meteorology* 275: 47-58.
330. Ding, Y., Liang, S. & Peng, S. 2019. Climate change affects forest productivity in a typical climate transition region of China. *Sustainability* 11: 2856.
331. Druckenbrod, D.L., Martin-Benito, D., Orwig, D.A., Pederson, N., Poulter, B., Renwick, K.M. & Shugart, H.H. 2019. Redefining temperate forest responses to climate and disturbance in the eastern United States: new insights at the mesoscale. *Global Ecology & Biogeography* 28: 557-575.
332. Fabrika, M., Valent, P. & Merganičová, K. 2019. Forest modelling and visualisation—state of the art and perspectives. *Central European Forestry Journal* 65: 147-165.
333. Forkel, M., Andela, N., Harrison, S.P., Lasslop, G., Marle, M. van, Chuvieco, E., Dorigo, W., Forrest, M., Hantson, S., Heil, A., Li, F., Melton, J., Sitch, S., Yue, C. & Arneeth, A. 2019. Emergent relationships with respect to burned area in global satellite observations and fire-enabled vegetation models. *Biogeosciences* 16, 57–76.
334. Fleisher, K., Rammig, A., De Kauwe, M.G., Walker, A.P., Domingues, T.F., Fuchslueger, L., Garcia, S., Goll, D.S., Grandis, A., Jiang, M., Haverd, V., Hofhansl, F., Holm, J.A., Kruijt, B., Leung, F., Medlyn, B.E., Mercado, L.M., Norby, R.J., Pak, B., von Randow, C., Quesada, C.A., Schaap, K.J., Valverde-Barrantes, O.J., Wang, Y.-P., Yang, X., Zaehle, S., Zhu, Q. & Lapola, D.M. 2019. Amazon forest response to CO<sub>2</sub> fertilization dependent on plant phosphorus acquisition. *Nature Geoscience* 12: 736-741.
335. Friedlingstein, P., Jones, M.W., O'Sullivan, M., Andrew, R.M., Hauck, J., Peters, G.P., Peters, W., Pongratz, J., Sitch, S., Le Quéré, C., Bakker, D.C.E., Canadell, J.G., Ciais, P., Jackson, R.B., Anthoni, P., Barbero, L., Bastos, A., Bastrikov, V., Becker, M., Bopp, L., Buitenhuis, E., Chandra, N., Chevallier, F., Chini, L.P., Currie, K.I., Feely, R.A., Gehlen, M., Gilfillan, D., Gkritzalis, T., Goll, D.S., Gruber, N., Gutekunst, S., Harris, I., Haverd, V., Houghton, R.A., Hurtt, G., Ilyina, T., Jain, A.K., Joetzer, E., Kaplan, J.O., Kato, E., Klein Goldewijk, K.,

- Korsbakken, J.I., Landschützer, P., Lauvset, S.K., Lefèvre, N., Lenton, A., Lienert, S., Lombardozzi, D., Marland, G., McGuire, P.C., Melton, J.R., Metzler, N., Munro, D.R., Nabel, J.E.M.S., Nakaoka, S.-I., Neill, C., Omar, A.M., Ono, T., Peregón, A., Pierrot, D., Poulter, B., Rehder, G., Resplandy, L., Robertson, E., Rödenbeck, C., Séférian, R., Schwinger, J., Smith, N., Tans, P.P., Tian, H., Tilbrook, B., Tubiello, F.N., van der Werf, G.R., Wiltshire, A.J. & Zaehle, S. 2019. Global Carbon Budget 2019. *Earth System Science Data* 11: 1783–1838.
336. Henry, R.C., Alexander, P., Rabin, S., Anthoni, P., Rounsevell, M.D.A. & Arneth, A. 2019. The role of global dietary transitions for safeguarding biodiversity. *Global Environmental Change* 58: 101956.
337. Krause, A., Haverd, V., Poulter, B., Anthoni, P., Quesada, B., Rammig, A. & Arneth, A. 2019. Multimodel analysis of future land use and climate change impacts on ecosystem functioning. *Earth's Future* 7: 833-851.
338. Lehsten, V., Mischurow, M., Lindström, E., Lehsten, D. & Lischke, H. 2019. LPJ-GM 1.0: simulating migration efficiently in a dynamic vegetation model. *Geoscientific Model Development* 12: 893-908.
339. Li, H., Renssen, H. & Roche, D.M. 2019. Global vegetation distribution driving factors in two Dynamic Global Vegetation Models of contrasting complexities. *Global & Planetary Change* 180: 51-65.
340. Li, H., Renssen, H., Roche, D.M. & Miller, P.A. 2019. Modelling the vegetation response to the 8.2 ka BP cooling event in Europe and Northern Africa. *Journal of Quaternary Science* 34: 650-661.
341. Li, F., Val Martin, M., Andreae, M.O., Arneth, A., Hantson, S., Kaiser, J.W., Lasslop, G., Yue, C., Bachelet, D., Forrest, M., Kluzek, E., Liu, X., Mangeon, S., Melton, J.R., Ward, D.S., Darmenov, A., Hickler, T., Ichoku, C., Magi, B.I., Sitch, S., van der Werf, G.R., Wiedinmyer, C. & Rabin, S.S. 2019. Historical (1700–2012) global multi-model estimates of the fire emissions from the Fire Modeling Intercomparison Project (FireMIP). *Atmospheric Chemistry & Physics* 19: 12545–12567.
342. Liang, S., Peng, S. & Chen, Y. 2019. Carbon cycles of forest ecosystems in a typical climate transition zone under future climate change: a case study of Shaanxi Province, China. *Forests* 10: 1150.
343. López-Blanco, E., Exbrayat, J.-F., Lund, M., Christensen, T.R., Tamstorf, M.P., Slevin, D., Hugelius, G., Bloom, A.A. & Williams, M. 2019 Evaluation of terrestrial pan-Arctic carbon cycling using a data-assimilation system. *Earth System Dynamics* 10: 233-255.
344. Lu, Z., Miller, P.A., Zhang, Q., Wårlind, D., Nieradzki, L., Sjolte, J., Li, Q. & Smith, B. 2019. Vegetation pattern and terrestrial carbon variation in past warm and cold climates. *Geophysical Research Letters* 46: 8133-8143.
345. Lutz, F., Stoorvogel, J.J. & Müller, C. 2019. Options to model the effects of tillage on N<sub>2</sub>O emissions at the global scale. *Ecological Modelling* 392: 212-225.
346. Merganičová, K., Merganič, J., Lehtonen, A., Vacchiano, G., Sever, M.Z.O., Augustynczyk, A.L.D., Grote, R., Kyselová, I., Mäkelä, A., Yousefpour, R., Krejza, J., Collalti, A. & Reyer, C.P.O. 2019. Forest carbon allocation modelling under climate change. *Tree Physiology* 39: 1937-1960.
347. Müller, C., Elliott, J., Kelly, D., Arneth, A., Balkovic, J., Ciais, P., Deryng, D., Folberth, C., Hoek, S., Izaurrealde, R.C., Jones, C.D., Khabarov, N., Lawrence, P., Liu, W., Olin, S., Pugh, T.A.M., Reddy, A., Rosenzweig, C., Ruane, A.C., Sakurai, G., Schmid, E., Skalsky, R., Wang, X., de Wit, A. & Yang, H. 2019. The Global Gridded Crop Model Intercomparison phase 1 simulation dataset. *Scientific Data* 6: 50.
348. Ngoma, J., Braakhekke, M.C., Kruijt, B., Moors, E., Supit, I., Speer, J.H., Vinya, R. & Leemans, R. 2019. Modelling the response of net primary productivity of the Zambezi teak forests to climate change along a rainfall gradient in Zambia. *Biogeosciences* 16: 3853-3867.
349. Peng, S., Yu, K., Wen, Z. & Zhang, C. 2019. Integrating potential natural vegetation and habitat suitability into revegetation programs for sustainable ecosystems under future climate change. *Agricultural & Forest Meteorology* 269-270: 270-284.
350. Pugh, T.A.M., Arneth, A., Kautz, M., Poulter, B. & Smith, B. 2019. Important role of forest disturbances in the global biomass turnover and carbon sinks. *Nature Geoscience* 12: 730-735.
351. Pugh, T.A.M., Lindeskog, M., Smith, B., Poulter, B., Arneth, A., Haverd, V. & Calle, L. 2019. Role of forest regrowth in global carbon sink dynamics. *Proceedings of the National Academy of Sciences USA* 116: 4382-4387.
352. Renwick, K.M., Fellows, A., Flerchinger, G.N., Lohse, K.A., Clark, P.E., Smith, W.K., Emmett, K. & Poulter, B. 2019. Modeling phenological controls on carbon dynamics in dryland sagebrush ecosystems. *Agricultural & Forest Meteorology* 274: 85-94.
353. Strandberg, G. & Kjellström, E. 2019. Climate impacts from afforestation and deforestation in Europe. *Earth Interactions* 23: 1-27.

354. Tian, H., Yang, J., Xu, R., Lu, C., Canadell, J.G., Davidson, E.A., Jackson, R.B., Arneeth, A., Chang, J., Ciais, P., Gerber, S., Ito, A., Joos, F., Lienert, S., Messina, P., Olin, S., Pan, S., Peng, C., Saikawa, E., Thompson, R.L., Vuichard, N., Winiwarter, W., Zaehle, S. & Zhang, B. 2019. Global soil nitrous oxide emissions since the preindustrial era estimated by an ensemble of terrestrial biosphere models: Magnitude, attribution, and uncertainty. *Global Change Biology* 25: 640-659.
355. Takolander, A., Hickler, T., Meller, L. & Cabeza, M. 2019. Comparing future shifts in tree species distributions across Europe projected by statistical and dynamic process-based models. *Regional Environmental Change* 19: 251-266.
356. Teckentrup, L., Harrison, S.P., Hantson, S., Heil, A., Melton, J.R., Forrest, M., Li, F., Yue, C., Arneeth, A., Hickler, T., Sitch, S. & Lasslop, G. 2019. Response of simulated burned area to historical changes in environmental and anthropogenic factors: a comparison of seven fire models. *Biogeosciences* 16: 3883-3910.
357. Tsuruta, A., Aalto, T., Backman, L., Krol, M.C., Peters, W., Lienert, S., Joos, F., Miller, P.A., Zhang, W., Laurila, T., Hatakka, J., Leskinen, A., Lehtinen, K.E.J., Peltola, O., Vesala, T., Levula, J., Dlugokencky, E., Heimann, M., Kozlova, E., Aurela, M., Lohila, A., Kauhaniemi, M. & Gomez-Pelaez, A.J. 2019. Methane budget estimates in Finland from the CarbonTracker Europe-CH<sub>4</sub> data assimilation system. *Tellus, Series B: Chemical & Physical Meteorology* 71: 1565030.
358. Walker, A.P., De Kauwe, M.G., Medlyn, B.E., Zaehle, S., Iversen, C.M., Asao, S., Guenet, B., Harper, A., Hickler, T., Hungate, B.A., Jain, A.K., Luo, Y., Lu, X., Lu, M., Luus, K., Megonigal, J.P., Oren, R., Ryan, E., Shu, S., Talhelm, A., Wang, Y.-P., Warren, J.M., Werner, C., Xia, J., Yang, B., Zak, D.R. & Norby, R.J. 2019. Decadal biomass increment in early secondary succession woody ecosystems is increased by CO<sub>2</sub> enrichment. *Nature Communications* 10: 454.
359. Willcock, S., Hooftman, D.A.P., Balbi, S., Blanchard, R., Dawson, T.P., O'Farrell, P.J., Hickler, T., Hudson, M.D., Lindeskog, M., Martinez-Lopez, J., Mulligan, M., Reyers, B., Shackleton, C., Sitas, N., Villa, F., Watts, S.M., Eigenbrod, F. & Bullock, J.M. 2019. A continental-scale validation of ecosystem service models. *Ecosystems* 22: 1902-1917.
360. Wu, Z., Hugelius, G., Luo, Y., Smith, B., Xia, J., Fensholt, R., Lehsten, V. & Ahlström, A. 2019. Approaching the potential of model-data comparisons of global land carbon storage. *Scientific Reports* 9: 3367.
361. Yuan, W., Zheng, Y., Piao, S., Ciais, P., Lombardozzi, D., Wang, Y., Ryu, Y., Chen, G., Dong, W., Hu, Z., Jain, A.K., Jiang, C., Kato, E., Li, S., Lienert, S., Liu, S., Nabel, J.E.M.S., Qin, Z., Quine, T., Sitch, S., Smith, W.K., Wang, F., Wu, C., Xiao, Z. & Yang, S. 2019. Increased atmospheric vapor pressure deficit reduces global vegetation growth. *Science Advances* 5: eaax1396.
362. Allen, J.R.M., Forrest, M., Hickler, T., Singarayer, J.S., Valdes, P.J. & Huntley, B. 2020. Global vegetation patterns of the past 140,000 years. *Journal of Biogeography* 47: 2073-2090.
363. Bastos, A., O'Sullivan, M., Ciais, P., Makowski, D., Sitch, S., Friedlingstein, P., Chevallier, F., Rödenbeck, C., Pongratz, J., Lujckx, I.T., Patra, P.K., Peylin, P., Canadell, J.G., Lauerwald, R., Li, W., Smith, N.E., Peters, W., Goll, D.S., Jain, A.K., Kato, E., Lienert, S., Lombardozzi, D.L., Haverd, V., Nabel, J.E.M.S., Poulter, B., Tian, H., Walker, A.P. & Zaehle, S. 2020. Sources of uncertainty in regional and global terrestrial CO<sub>2</sub> exchange estimates. *Global Biogeochemical Cycles* 34: e2019GB006393.
364. Bilbao, R., Wild, S., Ortega, P., Acosta-Navarro, J., Arsouze, T., Bretonnière, P.-A., Caron, L.-P., Castrillo, M., Cruz-García, R., Cvijanovic, I., Doblas-Reyes, F.J., Donat, M., Dutra, E., Echevarría, P., Ho, A.-C., Loosveldt-Tomas, S., Moreno-Chamarro, E., Pérez-Zanon, N., Ramos, A., Ruprich-Robert, Y., Sicardi, V., Tourigny, E. & Vegas-Regidor, J. 2021. Assessment of a full-field initialized decadal climate prediction system with the CMIP6 version of EC-Earth. *Earth System Dynamics* 12: 173-196.
365. Blanc, E. 2020. Aggregation of gridded emulated projections at the national or regional level: rainfed and irrigated crop yields and irrigation water requirements. *Journal of Global Economic Analysis* 5: 138-151.
366. Boysen, L.R., Brovkin, V., Pongratz, J., Lawrence, D.M., Lawrence, P., Vuichard, N., Peylin, P., Liddicoat, S., Hajima, T., Zhang, Y., Rocher, M., Delire, C., Séférian, R., Arora, V.K., Nieradzik, L., Anthoni, P., Thiery, W., Laguë, M.M., Lawrence, D. & Lo, M.-H. 2020. Global climate response to idealized deforestation in CMIP6 models. *Biogeosciences* 17: 5615-5638.
367. Blanc, E. 2020. Statistical emulators of irrigated crop yields and irrigation water requirements. *Agricultural & Forest Meteorology* 284: 107828.

368. Chaudhary, N., Westermann, S., Lamba, S., Shurpali, N., Sannel, A.B.K., Schurgers, G., Miller, P.A. & Smith, B. 2020. Modelling past and future peatland carbon dynamics across the pan-Arctic. *Global Change Biology* 26: 4119-4113.
369. Davies-Barnard, T., Meyerholt, J., Zachle, S., Friedlingstein, P., Brovkin, V., Fan, Y., Fisher, R.A., Jones, C.D., Lee, H., Peano, D., Smith, B., Wårlind, D. & Wiltshire, A.J. 2020. Nitrogen cycling in CMIP6 land surface models: progress and limitations. *Biogeosciences* 17: 5129-5148.
370. D'Onofrio, D., Baudena, M., Lasslop, G., Nieradzki, L., Wårlind, D. & von Hardenberg, J. 2020. Linking vegetation-climate-fire relationships in sub-Saharan Africa to key ecological processes in two Dynamic Global Vegetation Models. *Frontiers in Environmental Science* 8: 136.
371. Forrest, M., Tost, H., Lelieveld, J. & Hickler, T. 2020. Including vegetation dynamics in an atmospheric chemistry-enabled general circulation model: linking LPJ-GUESS (v4.0) with the EMAC modelling system (v2.53). *Geoscientific Model Development* 13: 1285-1309.
372. Friedlingstein, P., O'Sullivan, M., Jones, M.W., Andrew, R.M., Hauck, J., Olsen, A., Peters, G.P., Peters, W., Pongratz, J., Sitch, S., Le Quéré, C., Canadell, J.G., Ciais, P., Jackson, R.B., Alin, S., Aragão, L.E.O. C., Arneeth, A., Arora, V., Bates, N.R., Becker, M., Benoit-Cattin, A., Bittig, H.C., Bopp, L., Bultan, S., Chandra, N., Chevallier, F., Chini, L.P., Evans, W., Florentie, L., Forster, P.M., Gasser, T., Gehlen, M., Gilfillan, D., Gkritzalis, T., Gregor, L., Gruber, N., Harris, I., Hartung, K., Haverd, V., Houghton, R.A., Ilyina, T., Jain, A.K., Joetzjer, E., Kadono, K., Kato, E., Kitidis, V., Korsbakken, J.I., Landschützer, P., Lefèvre, N., Lenton, A., Lienert, S., Liu, Z., Lombardozi, D., Marland, G., Metzl, N., Munro, D.R., Nabel, J.E.M.S., Nakaoka, S.-I., Niwa, Y., O'Brien, K., Ono, T., Palmer, P.I., Pierrot, D., Poulter, B., Resplandy, L., Robertson, E., Rödenbeck, C., Schwinger, J., Séférian, R., Skjelvan, I., Smith, A.J.P., Sutton, A.J., Tanhua, T., Tans, P.P., Tian, H., Tilbrook, B., van der Werf, G., Vuichard, N., Walker, A.P., Wanninkhof, R., Watson, A.J., Willis, D., Wiltshire, A.J., Yuan, W., Yue, X. & Zachle, S. 2020. Global Carbon Budget 2020. *Earth System Science Data* 12: 3269–3340.
373. Hamilton, D.S., Moore, J.K., Arneeth, A., Bond, T.C., Carslaw, K.S., Hantson, S., Ito, A., Kaplan, J.O., Lindsay, K., Nieradzki, L., Rathod, S.D., Scanza, R.A., Mahowald, N.M. 2020. Impact of changes to the atmospheric soluble iron deposition flux on ocean biogeochemical cycles in the Anthropocene. *Global Biogeochemical Cycles* 34: e2019GB006448.
374. Hantson, S., Kelley, D.I., Arneeth, A., Harrison, S.P., Archibald, S., Bachelet, D., Forrest, M., Hickler, T., Lasslop, G., Li, F., Mangeon, S., Melton, J.R., Nieradzki, L., Rabin, S.S., Prentice, I.C., Sheehan, T., Sitch, S., Teckentrup, L., Voulgarakis, A. & Yue, C. 2020. Quantitative assessment of fire and vegetation properties in simulations with fire-enabled vegetation models from the Fire Model Intercomparison Project. *Geoscientific Model Development* 13: 3299–3318.
375. Heino, M., Guillaume, J.H.A., Müller, C., Iizumi, T. & Kummu, M. 2020. A multi-model analysis of teleconnected crop yield variability in a range of cropping systems. *Earth System Dynamics* 11: 113-128.
376. Hopcroft, P.O., Ramstein, G., Pugh, T.A.M., Hunter, S.J., Murguía-Flores, F., Quiquet, A., Sun, Y., Tan, N. & Valdes, P.J. 2020. Polar amplification of Pliocene climate by elevated trace gas radiative forcing. *Proceedings of the National Academy of Sciences USA* 117: 23401-23407.
377. Ito, A., Hajima, T., Lawrence, D.M., Brovkin, V., Delire, C., Guenet, B., Jones, C.D., Malyshev, S., Matera, S., McDermid, S.P., Peano, D., Pongratz, J., Robertson, E., Shevliakova, E., Vuichard, N., Wårlind, D., Wiltshire, A. & Ziehn, T. 2020. Soil carbon sequestration simulated in CMIP6-LUMIP models: Implications for climatic mitigation. *Environmental Research Letters* 15: 124061.
378. Ito, A., Reyer, C.P.O., Gädeke, A., Ciais, P., Chang, J., Chen, M., François, L., Forrest, M., Hickler, T., Ostberg, S., Shi, H., Thiery, W. & Tian, H. 2020. Pronounced and unavoidable impacts of low-end global warming on northern high-latitude land ecosystems. *Environmental Research Letters* 15: 044006.
379. Johansson, E., Olin, S. & Seaquist, J. 2020. Foreign demand for agricultural commodities drives virtual carbon exports from Cambodia. *Environmental Research Letters* 15: 064034.
380. Kis, A., Pongrácz, R., Bartholy, J., Gocic, M., Milanovic, M. & Trajkovic, S. 2020. Multi-scenario and multi-model ensemble of regional climate change projections for the plain areas of the Pannonian Basin. *Quarterly Journal of the Hungarian Meteorological Service* 124: 157-190.
381. Kondo, M., Patra, P.K., Sitch, S., Friedlingstein, P., Poulter, B., Chevallier, F., Ciais, P., Canadell, J.G., Bastos, A., Lauerwald, R., Calle, L., Ichii, K., Anthoni, P., Arneeth, A., Haverd, V., Jain, A.K., Kautz, M., Law, R.M., Lienert, S., Lombardozi, D., Maki, T., Nakamura, T., Peylin, P., Rödenbeck, C., Zhuravlev, R., Saeki, T., Tian, H., Zhu, D.

- & Ziehn, T. 2020. State of the science in reconciling top-down and bottom-up approaches for terrestrial CO<sub>2</sub> budget. *Global Change Biology* 26: 1068-1084.
382. Krause, A., Arneth, A., Anthoni, P. & Rammig, A. 2020. Legacy effects from historical environmental changes dominate future terrestrial carbon uptake. *Earth's Future* 8: e2020EF001674.
383. Krause, A., Knoke, T. & Rammig, A. 2020. A regional assessment of land-based carbon mitigation potentials: bioenergy, BECCS, reforestation and forest management. *Global Change Biology Bioenergy* 12: 346-360.
384. Lange, S., Volkholz, J., Geiger, T., Zhao, F., Vega, I., Veldkamp, T., Reyer, C.P.O., Warszawski, L., Huber, V., Jagermeyr, J., Schewe, J., Bresch, D.N., Buchner, M., Chang, J.F., Ciais, P., Dury, M., Emanuel, K., Folberth, C., Gerten, D., Gosling, S.N., Grillakis, M., Hanasaki, N., Henrot, A.J., Hickler, T., Honda, Y., Ito, A., Khabarov, N., Koutroulis, A., Liu, W.F., Muller, C., Nishina, K., Ostberg, S., Schmied, H.M., Seneviratne, S.I., Stacke, T., Steinkamp, J., Thiery, W., Wada, Y., Willner, S., Yang, H., Yoshikawa, M., Yue, C. & Frieler, K. 2020. Projecting exposure to extreme climate impact events across six event categories and three spatial scales. *Earths Future* 8: e2020EF001616.
385. Lasslop, G., Hantson, S., Harrison, S.P., Bachelet, D., Burton, C., Forkel, M., Forrest, M., Li, F., Melton, J.R., Yue, C., Archibald, S., Scheiter, S., Arneth, A., Hickler, T. & Sitch, S. 2020. Global ecosystems and fire: Multi-model assessment of fire-induced tree-cover and carbon storage reduction. *Global Change Biology* 26: 5027-5041.
386. Li, H., Renssen, H. & Roche, D.M. 2020. Modeling climate-vegetation interactions during the last interglacial: The impact of biogeophysical feedbacks in North Africa. *Quaternary Science Reviews* 249: 106609.
387. Pan, S., Yang, J., Tian, H., Shi, H., Chang, J., Ciais, P., Francois, L., Frieler, K., Fu, B., Hickler, T., Ito, A., Nishina, K., Ostberg, S., Reyer, C.P.O., Schaphoff, S., Steinkamp, J. & Zhao, F. 2020. Climate extreme versus carbon extreme: responses of terrestrial carbon fluxes to temperature and precipitation. *Journal of Geophysical Research—Biogeosciences* 125: e2019JG005252.
388. Pirzamanbein, B., Poska, A. & Lindström, J. 2020. Bayesian reconstruction of past land cover from pollen data: model robustness and sensitivity to auxiliary variables. *Earth & Space Science* 7: e2018EA00057.
389. Pugh, T.A.M., Rademacher, T., Shafer, S.L., Steinkamp, J., Barichivich, J., Beckage, B., Haverd, V., Harper, A., Heinke, J., Nishina, K., Rammig, A., Sato, H., Arneth, A., Hantson, S., Hickler, T., Kautz, M., Quesada, B., Smith, B. & Thonicke, K. 2020. Understanding the uncertainty in global forest carbon turnover. *Biogeosciences* 17: 3961–3989.
390. Rabin, S.S., Alexander, P., Henry, R., Anthoni, P., Pugh, T.A.M., Rounsevell, M. & Arneth, A. 2020. Impacts of future agricultural change on ecosystem service indicators. *Earth System Dynamics* 11: 357-376.
391. Rinnan, R., Iversen, L.L., Tang, J., Vedel-Petersen, I., Schollert, M. & Schurgers, G. 2020. Separating direct and indirect effects of rising temperatures on biogenic volatile emissions in the Arctic. *Proceedings of the National Academy of Sciences USA* 117: 32476-32483.
392. Rowlinson, M.J., Rap, A., Hamilton, D.S., Pope, R.J., Hantson, S., Arnold, S.R., Kaplan, J.O., Arneth, A., Chipperfield, M.P., Forster, P.M. & Nieradzik, L. 2020. Tropospheric ozone radiative forcing uncertainty due to pre-industrial fire and biogenic emissions. *Atmospheric Chemistry & Physics* 20: 10937-10951.
393. Saunio, M., Stavert, A.R., Poulter, B., Bousquet, P., Canadell, J.G., Jackson, R.B., Raymond, P.A., Dlugokencky, E.J., Houweling, S., Patra, P.K., Ciais, P., Arora, V.K., Bastviken, D., Bergamaschi, P., Blake, D.R., Brailsford, G., Bruhwiler, L., Carlson, K.M., Carrol, M., Castaldi, S., Chandra, N., Crevoisier, C., Crill, P.M., Covey, K., Curry, C.L., Etiope, G., Frankenberg, C., Gedney, N., Hegglin, M.I., Höglund-Isaksson, L., Hugelius, G., Ishizawa, M., Ito, A., Janssens-Maenhout, G., Jensen, K.M., Joos, F., Kleinen, T., Krummel, P.B., Langenfelds, R.L., Laruelle, G.G., Liu, L., Machida, T., Maksyutov, S., McDonald, K.C., McNorton, J., Miller, P.A., Melton, J.R., Morino, I., Müller, J., Murguia-Flores, F., Naik, V., Niwa, Y., Noce, S., O'Doherty, S., Parker, R.J., Peng, C., Peng, S., Peters, G.P., Prigent, C., Prinn, R., Ramonet, M., Regnier, P., Riley, W.J., Rosentretter, J.A., Segers, A., Simpson, I.J., Shi, H., Smith, S.J., Steele, L.P., Thornton, B.F., Tian, H., Tohjima, Y., Tubiello, F.N., Tsuruta, A., Viovy, N., Voulgarakis, A., Weber, T.S., van Weele, M., van der Werf, G.R., Weiss, R.F., Worthy, D., Wunch, D., Yin, Y., Yoshida, Y., Zhang, W., Zhang, Z., Zhao, Y., Zheng, B., Zhu, Q., Zhu, Q., and Zhuang, Q. 2020. The Global Methane Budget 2000–2017. *Earth System Science Data* 12: 1561-1623.
394. Tagesson, T., Schurgers, G., Horion, S., Ciais, P., Tian, F., Brandt, M., Ahlström, A., Wigneron, J.-P., Ardö, J., Olin, S., Fan, L., Wu, Z. & Fensholt, R. 2020. Recent divergence in the contributions of tropical and boreal forests to the terrestrial carbon sink. *Nature Ecology & Evolution* 4: 202-209.
395. Tang, X., Fan, S., Du, M., Zhang, W., Gao, S., Liu, S., Chen, G., Yu, Z. & Yang, W. 2020. Spatial and temporal patterns of global soil heterotrophic respiration in terrestrial ecosystems. *Earth System Science Data* 12: 1037–1051.



396. Willcock, S., Hooftman, D.A.P., Blanchard, R., Dawson, T.P., Hickler, T., Lindeskog, M., Martinez-Lopez, J., Reyers, B., Watts, S.M., Eigenbrod, F. & Bullock, J.M. 2020. Ensembles of ecosystem service models can improve accuracy and indicate uncertainty. *Science of the Total Environment* 747: 141006.
397. Wyser, K., Kjellström, E., Koenigk, T., Martins, H. & Döscher, R. 2020. Warmer climate projections in EC-Earth3-Veg: the role of changes in the greenhouse gas concentrations from CMIP5 to CMIP6. *Environmental Research Letters* 15: 054020.
398. Yang, H., Ciais, P., Santoro, M., Huang, Y., Li, W., Wang, Y., Bastos, A., Goll, D., Arneeth, A., Anthoni, P., Arora, V.K., Friedlingstein, P., Haverd, V., Joetzjer, E., Kautz, M., Lienert, S., Nabel, J.E.M.S., O'Sullivan, M., Sitch, S., Vuichard, N., Wiltshire, A. & Zhu, D. 2020. Comparison of forest above-ground biomass from dynamic global vegetation models with spatially explicit remotely sensed observation-based estimates. *Global Change Biology* 26: 3997-4012.
399. Yue, T., Zhao, N., Liu, Y., Wang, Y., Zhang, B., Du, Z., Fan, Z., Shi, W., Chen, C., Zhao, M., Song, D., Wang, S., Song, Y., Yan, C., Li, Q., Sun, X., Zhang, L., Tian, Y., Wang, W., Wang, Y., Ma, S., Huang, H., Lu, Y., Wang, Q., Wang, C., Wang, Y., Lu, M., Zhou, W., Liu, Y., Wang, Z., Bao, Z., Zhao, M., Zhao, Y., Rao, Y., Naseer, U., Fan, B., Li, S., Yang, Y. & Wilson, J. 2020. A fundamental theorem for eco-environmental surface modelling and its applications. *Science China Earth Sciences* 63: 1092-1112.
400. Zhang, W., Döscher, R., Koenigk, T., Miller, P.A., Jansson, C., Samuelsson, P., Wu, M. & Smith, B. 2020. The interplay of recent vegetation and sea ice dynamics—results from a regional Earth system model over the Arctic. *Geophysical Research Letters* 47, e2019GL085982.
401. Zohner, C.M., Mo, L.D., Pugh, T.A.M., Bastin, J.F. & Crowther, T.W. 2020. Interactive climate factors restrict future increases in spring productivity of temperate and boreal trees. *Global Change Biology* 7: 4042-4055.
402. Akperov, M., Zhang, W., Miller, P.A., Mokhov, I.I., Semenov, V.A., Matthes, H., Smith, B. & Rinke, A. 2021. Responses of Arctic cyclones to biogeophysical feedbacks under future warming scenarios in a regional Earth system model. *Environmental Research Letters* 16: 064076.
403. Bastos, A., Orth, R., Reichstein, M., Ciais, P., Viovy, N., Zaehle, S., Anthoni, P., Arneeth, A., Gentine, P., Joetzjer, E., Lienert, S., Loughran, T., McGuire, P.C., O, S., Pongratz, J. & Sitch, S. 2021. Vulnerability of European ecosystems to two compound dry and hot summers in 2018 and 2019. *Earth System Dynamics* 12: 1015–1035.
404. Bayer, A.D., Fuchs, R., Mey, R., Krause, A., Verburg, P.H., Anthoni, P. & Arneeth, A. 2021. Diverging land-use projections cause large variability in their impacts on ecosystems and related indicators for ecosystem services. *Earth System Dynamics* 12: 327–351.
405. Bendix, J., Aguirre, N., Beck, E., Bräuning, A., Brandl, R., Breuer, L., Böhning-Gaese, K., de Paula, M.D., Hickler, T., Homeier, J., Inclan, D., Leuschner, C., Neuschulz, L., Schlenning, M., Suarez, J.P., Trachte, K., Wilcke, W., Windhorst, D. & Farwig, N. A research framework for projecting ecosystem change in highly diverse tropical mountain ecosystems. *Oecologia* 195: 589-600.
406. Boysen, L.R., Brovkin, V., Wårlind, D., Peano, D., Lansø, A.S., Delire, C., Burke, E., Poeplau, C. & Don, A. 2021. Evaluation of soil carbon dynamics after forest cover change in CMIP6 land models using chronosequences. *Environmental Research Letters* 16: 074030.
407. Chen, J., Zhang, Q., Huang, W., Lu, Z., Zhang, Z. & Chen, F. 2021. Northwestward shift of the northern boundary of the East Asian summer monsoon during the mid-Holocene caused by orbital forcing and vegetation feedbacks. *Quaternary Science Reviews* 268: 107136.
408. D'Adamo, F., Ogotu, B., Brandt, M., Schurgers, G. & Dash, J. 2021. Climatic and non-climatic vegetation cover changes in the rangelands of Africa. *Global & Planetary Change* 202: 103516.
409. Dass, P., Houlton, B.Z., Wang, Y.-P., Wårlind, D. & Morford, S. 2021. Bedrock weathering controls on terrestrial carbon-nitrogen-climate interactions. *Global Biogeochemical Cycles* 35: e2020GB006933.
410. Dantas de Paula, M., Forrest, M., Langan, L., Bendix, J., Homeier, J., Velescu, A., Wilcke, W. & Hickler, T. 2021. Nutrient cycling drives plant community trait assembly and ecosystem functioning in a tropical mountain biodiversity hotspot. *New Phytologist* 232: 551-566.
411. Docquier, D., Koenigk, T., Fuentes-Franco, R., Karami, M.P. & Ruprich-Robert, Y. 2021. Impact of ocean heat transport on the Arctic sea-ice decline: a model study with EC-Earth3. *Climate Dynamics* 56: 1407-1432.
412. Emmett, K.D., Renwick, K.M. & Poulter, B. 2021. Adapting a dynamic vegetation model for regional biomass, plant biogeography, and fire modeling in the Greater Yellowstone Ecosystem: Evaluating LPJ-GUESS-LMfireCF. *Ecological Modelling* 440: 109417.

413. Fryer, J. & Williams, I.D. 2021. Regional carbon stock assessment and the potential effects of land cover change. *Science of the Total Environment* 775: 145815.
414. Gampe, D., Zscheischler, J., Reichstein, M., O'Sullivan, M., Smith, W.K., Sitch, S. & Buermann, W. 2021. Increasing impact of warm droughts on northern ecosystem productivity over recent decades. *Nature Climate Change* 11: 772-779.
415. Gonsama, A., Ciais, P., Miralles, D.G., Sitch, S., Dorigo, W., Lombardozzi, D., Friedlingstein, P., Nabel, J.E.M.S., Goll, D.S., O'Sullivan, M., Arneeth, A., Anthoni, P., Jain, A.K., Wiltshire, A., Pelin, P. & Cescatti, A. 2021. Greening drylands despite warming consistent with carbon dioxide fertilization effect. *Global Change Biology* 27: 3336-3349.
416. Gröger, M., Dieterich, C., Haapala, J., Ho-Hagemann, H.T.M., Hagemann, S., Jakacki, J., May, W., Meier, H.E.M., Miller, P.A., Rutgersson, A. & Wu, L. 2021. Coupled regional Earth system modeling in the Baltic Sea region. *Earth System Dynamics* 12: 939-973.
417. Gustafson, A., Miller, P.A., Björk, R.G., Olin, S. & Smith, B. 2021. Nitrogen restricts future sub-arctic treeline advance in an individual-based dynamic vegetation model. *Biogeosciences* 18: 6329-6347.
418. Han, Q., Ding, Y. & Peng, S. 2021. Sustainable and cost-effective vegetation restoration framework under climate change. *Forest Ecology & Management* 496: 119436.
419. Han, Q. & Peng, S. 2021. Spatial pattern and habitat suitability of potential natural vegetation in the Loess Plateau. *Journal of Soil & Water Conservation* 35. DOI 10.13870/j.cnki.stbcxb.2021.05.026.
420. Huntley, B., Allen, J.R.M., Forrest, M., Hickler, T., Ohlemüller, R., Singarayer, J.S. & Valdes, P. 2021. Projected climate changes lead to biome changes in areas of previously constant biome. *Journal of Biogeography* 48: 2418-2428.
421. Hupperts, S.F., Gerber, S., Nilsson, M.-C. & Gundale, M.J. 2021. Empirical and Earth system model estimates of boreal nitrogen fixation often differ: A pathway toward reconciliation. *Global Change Biology* 27: 5711-5725.
422. Jing, Z., Cheng, L., Zhang, L., Wang, Y.-P., Liu, P., Zhang, X. & Wang, Q. 2021. The dependence of ecosystem water use partitioning on vegetation productivity at the inter-annual time scale. *Journal of Geophysical Research—Atmospheres* 126: e2020JD033756.
423. Kaltenegger, K., Erb, K.-H., Matej, S. & Winiwarter, W. 2021. Gridded soil surface nitrogen surplus on grazing and agricultural land: impact of land use maps. *Environmental Research Communications* 3: 055003.
424. Kastner, T., Matej, S., Forrest, M., Gingrich, S., Haberl, H., Hickler, T., Krausmann, F., Lasslop, G., Niedertscheider, M., Plutzer, C., Schwarzmüller, F., Steinkamp, J. & Erb, K.-H. 2021. Land use intensification increasingly drives the spatiotemporal patterns of the global human appropriation of net primary production in the last century. *Global Change Biology* 28: 307-322.
425. Keen, A., Blockley, E., Bailey, D.A., Boldingh Debernard, J., Bushuk, M., Delhay, S., Docquier, D., Feltham, D., Massonnet, F., O'Farrell, S., Ponsoni, L., Rodriguez, J.M., Schroeder, D., Swart, N., Toyoda, T., Tsujino, H., Vancoppenolle, M. & Wyser, K. 2021. An inter-comparison of the mass budget of the Arctic sea ice in CMIP6 models. *The Cryosphere* 15: 951-982.
426. Kukla, T., Ahlström, A., Maezumi, S.Y., Chevalier, M., Lu, Z.Y., Winnick, M.J. & Chamberlain, C.P. 2021. The resilience of Amazon tree cover to past and present drying. *Global & Planetary Change* 202: 103520.
427. Lindeskog, M., Smith, B., Lagergren, F., Sycheva, E., Ficko, A., Pretzsch, H. & Rammig, A. 2021. Accounting for forest management in the estimation of forest carbon balance using the dynamic vegetation model LPJ-GUESS (v4.0, r9710): implementation and evaluation of simulations for Europe. *Geoscientific Model Development* 14: 6071-6112.
428. Lindgren, A., Lu, Z., Zhang, Q. & Hugelius, G. 2021. Reconstructing past global vegetation with random forest machine learning, sacrificing the dynamic response for robust results. *Journal of Advances in Modeling Earth Systems* 13: e2020MS002200.
429. Lu, H., Li, S., Ma, M., Bastrikov, V., Chen, X., Ciais, P., Dai, Y., Ito, A., Ju, W., Liebert, S., Lombardozzi, D., Lu, X., Maignan, F., Nakhavali, M., Quine, T., Schindlbacher, A., Wang, J., Wang, Y., Wårlind, D., Zhang, S. & Yuan, W. 2021. Comparing machine learning-derived global estimates of soil respiration and its components with those from terrestrial ecosystem models. *Environmental Research Letters* 16: 054048.
430. Lu, Z., Zhang, Q., Miller, P.A., Zhang, Q., Bernzell, E. & Smith, B. 2021. Impacts of large-scale Sahara solar farms on global climate and vegetation cover. *Geophysical Research Letters* 48: e2020GL090789.

431. Molinari, C., Hantson, S. & Nieradzik, L.P. 2021. Fire dynamics in boreal forests over the 20th century: a data-model comparison. *Frontiers in Ecology & Evolution* 9: 728958.
432. Monteil, G. & Scholze, M. 2021. Regional CO<sub>2</sub> inversions with LUMIA, the Lund University Modular Inversion Algorithm, v1.0. *Geoscientific Model Development* 14: 3383-3406.
433. Obermeier, W.A., Nabel, J.E.M.S., Loughran, T., Hartung, K., Bastos, A., Havermann, F., Anthoni, P., Arneith, A., Goll, D.S., Lienert, S., Lombardozzi, D., Luysaert, S., McGuire, P.C., Melton, J.R., Poulter, B., Sitch, S., Sullivan, M.O., Tian, H., Walker, A.P., Wiltshire, A.J., Zaehle, S. & Pongratz, J. 2021. Modelled land use and land cover change emissions – a spatio-temporal comparison of different approaches. *Earth System Dynamics* 12: 635–670.
434. Ogunkoya, A., Kaplan, J., Whitlock, C., Nanavati, W., Roberts, D.W. & Poulter, B. 2021. Drivers of recent forest cover change in southern South America are linked to climate and CO<sub>2</sub>. *Landscape Ecology* 36: 3591-3606.
435. Peano, D., Hemming, D., Materia, S., Delire, C., Fan, Y., Joetzjer, E., Lee, H., Nabel, J.E.M.S., Park, T., Peylin, P., Wårlind, D., Wiltshire, A. & Zaehle, S. 2021. Plant phenology evaluation of CRESCENDO land surface models – Part 1: Start and end of the growing season. *Biogeosciences* 18: 2405–2428.
436. Pongracz, A., Wårlind, D., Miller, P.A. & Parmentier, F.-J.W. 2021. Model simulations of arctic biogeochemistry and permafrost extent are highly sensitive to the implemented snow scheme in LPJ-GUESS. *Biogeosciences* 18: 5767–5787.
437. Ringeval, B., Müller, C., Pugh, T.A.M., Mueller, N.D., Ciais, P., Folberth, C., Liu, W., Debaeke, P. & Pellerin, S. 2021. Potential yield simulated by global gridded crop models: using a process-based emulator to explain their differences. *Geoscientific Model Development* 14: 1639–1656.
438. Sathyanadh, A., Monteil, G., Scholze, M., Klosterhalfen, A., Laudon, H., Wu, Z., Gerbig, C., Peters, W., Bastrikov, V., Nilsson, M.B. & Peichl, M. 2021. Reconciling the carbon balance of northern Sweden through integration of observations and modelling. *Journal of Geophysical Research—Atmospheres* 126: e2021JD035185.
439. Shi, H., Tian, H., Pan, N., Reyer, C.P.O., Ciais, P., Chang, J., Forrest, M., Frieler, K., Fu, B., Gädeke, A., Hickler, T., Ito, A., Ostberg, S., Pan, S., Stevanović, M. & Yang, J. 2021. Saturation of global terrestrial carbon sink under a high warming scenario. *Global Biogeochemical Cycles* 35: e2020GB006800.
440. Stuenzi, S.M., Boike, J., Gädeke, A., Herzsuh, U., Kruse, S., Pestryakova, L.A., Westermann, S. & Langer, M. 2021. Sensitivity of ecosystem-protected permafrost under changing boreal forest structures. *Environmental Research Letters* 16: 084045.
441. Tang, L., Chen, X., Cai, X. & Li, J. 2021. Disentangling the roles of land-use-related drivers on vegetation greenness across China. *Environmental Research Letters* 16: 124033.
442. Tang, L., Lei, Q., Liu, W., Chen, X., Zhang, Y., Cai, X. & Chen, F. 2021. Optimization of multi-ecosystem model ensembles to simulate vegetation growth at the global scale. *IEEE Transactions on Geoscience & Remote Sensing* 59: 962-978.
443. Tarasewicz, N.A. & Jönsson A.M. 2021. An ecosystem model based composite indicator, representing sustainability aspects for comparison of forest management strategies. *Ecological Indicators* 133: 108456.
444. Teckentrup, L., De Kauwe, M.G., Pitman, A.J. & Smith, B. 2021. Examining the sensitivity of the terrestrial carbon cycle to the expression of El Niño. *Biogeosciences* 18: 2181-2203.
445. Terrer, C., Phillips, R.P., Hungate, B.A., Rosende, J., Pett-Ridge, J., Craig, M.E., van Groeningen, K.J., Keenan, T.F., Sulman, B.N., Stocker, B.D., Reich, P.B., Pellegrini, A.F.A., Pendall, E., Zhang, H., Evans, R.D., Carrillo, Y., Fisher, J.B., Van Sundert, K., Vicca, S. & Jackson, R.B. 2021. A trade-off between plant and soil carbon storage under elevated CO<sub>2</sub>. *Nature* 591: 599-603.
446. Thiery, W., Lange, S., Rogelj, J., Schleussner, C.F., Gudmundsson, L., Seneviratne, S.I., Andrijevic, M., Frieler, K., Emanuel, K., Geiger, T., Bresch, D.N., Zhao, F., Willner, S.N., Buchner, M., Volkholz, J., Bauer, N., Chang, J.F., Ciais, P., Dury, M., Francois, L., Grillakis, M., Gosling, S.N., Hanasaki, N., Hickler, T., Huber, V., Ito, A., Jagermeyr, J., Khabarov, N., Koutroulis, A., Liu, W.F., Lutz, W., Mengel, M., Muller, C., Ostberg, S., Reyer, C.P.O., Stacke, T. & Wada, Y. 2021. Intergenerational inequities in exposure to climate extremes: Young generations are severely threatened by climate change. *Science* 374: 158-160.
447. Traylor, W. 2021. MMM: A C++ library for simulating large herbivores. *Journal of Open Source Software* 6: 3631.
448. Uribe, M.R., Sierra, C.A. & Dukes, J.S. 2021. Seasonality of tropical photosynthesis: a pantropical map of correlations with precipitation and radiation and comparison to model outputs. *Journal of Geophysical Research—Biogeosciences* 126: e2020JG006123.

449. Usman, H., Pugh, T.A.M., Ahlström, A. & Baig, S. 2021. Climate change projections of terrestrial primary productivity over the Hindu Kush Himalayan forests. *Earth System Dynamics* 12: 857–870.
450. Verbruggen, W., Schurgers, G., Horion, S., Ardö, J., Bernardino, P.N., Cappelaere, B., Demarty, J., Fensholt, R., Kergoat, L., Sibret, T., Tagesson, T. & Verbeeck, H. 2021. Contrasting responses of woody and herbaceous vegetation to altered rainfall characteristics in the Sahel. *Biogeosciences* 18: 77–93.
451. Wang, M., Wang, S., Zhao, J., Ju, W., Hao, Z. 2021. Global positive gross primary productivity extremes and climate contributions during 1982–2016. *Science of the Total Environment* 774: 145703.
452. Wang, Y., Widga, C., Graham, R.W., McGuire, J.L., Porter, W., Wärlind, D. & Williams, J.W. 2021. Caught in a bottleneck: habitat loss for woolly mammoths in central North America and the ice-free corridor during the last deglaciation. *Global Ecology & Biogeography* 30: 527–542.
453. Wu, M., Smith, B., Schurgers, G., Ahlström, A. & Rummukainen, M. 2021. Vegetation-climate feedbacks enhance spatial heterogeneity of pan-Amazonian ecosystem states under climate change. *Geophysical Research Letters* 48: e2020GL092001.
454. Yu, J.J., Berry, P., Guillod, B.P. & Hickler, T. 2021. Climate change impacts on the future of forests in Great Britain. *Frontiers in Environmental Science* 9: 640530.
455. Zhao, X., Calvin, K.V., Wise, M.A., Patel, P.L., Snyder, A.C., Waldhoff, S.T., Hejazi, M.I. & Edmonds, J.A. 2021. Global agricultural responses to interannual climate and biophysical variability. *Environmental Research Letters* 16: 104037.
456. Zheng, Z., Zhang, Y., Zhu, J. & Cong, N. 2021. Daytime temperature contributes more than nighttime temperature to the weakened relationship between climate warming and vegetation growth in the extratropical Northern Hemisphere. *Ecological Indicators* 131: 108203.
457. Camargo-Alvarez, H., Elliott, R.J.R., Olin, S., Wang, X.H., Wang, C.Z., Ray, D.K. & Pugh, T.A.M. 2022. Modelling crop yield and harvest index: the role of carbon assimilation and allocation parameters. *Modeling Earth Systems & Environment* 9: 2617–2635.
458. Cano, I.M., Shevliakova, E., Malyshev, S., John, J.G., Yu, Y., Smith, B. & Pacala, S.W. 2022. Abrupt loss and uncertain recovery from fires of Amazon forests under low climate mitigation scenarios. *Proceedings of the National Academy of Sciences USA* 119: e2203200119.
459. Carmo-Costa, T., Bilbao, R., Ortega, P., Teles-Machado, A. & Dutra, E. 2022. Trends, variability and predictive skill of the ocean heat content in North Atlantic: an analysis with the EC-Earth3 model. *Climate Dynamics* 58: 1311–1328.
460. Chen, J., Zhang, Q., Kjellström, E., Lu, Z. & Chen, F. 2022. The contribution of vegetation-climate feedback and resultant sea ice loss to amplified Arctic warming during the Mid-Holocene. *Geophysical Research Letters* 49: e2022GL098816.
461. Chen, Z., Wang, W., Cescatti, A. & Forzieri, G. 2022. Climate-driven vegetation greening further reduces water availability in drylands. *Global Change Biology* 29: 1628–1647.
462. Chaudhary, N., Zhang, W., Lamba, S. & Westermann, S. 2022. Modeling pan-Arctic peatland carbon dynamics under alternative warming scenarios. *Geophysical Research Letters* 49: e2021GL095276.
463. De Hertog, S.J., Havermann, F., Vanderkelen, I., Guo, S., Luo, F., Manola, I., Coumou, D., Davin, E.L., Duveiller, G., Lejeune, Q., Pongratz, J., Schleussner, C.-F., Seneviratne, S.I. & Thiery, W. 2022. The biogeophysical effects of idealized land cover and land management changes in Earth system models. *Earth System Dynamics* 13: 1305–1350.
464. Döscher, R., Acosta, M., Alessandri, A., Anthoni, P., Arsouze, T., Bergman, T., Bernardello, R., Boussetta, S., Caron, L.-P., Carver, G., Castrillo, M., Catalano, F., Cvijanovic, I., Davini, P., Dekker, E., Doblas-Reyes, F.J., Docquier, D., Echevarria, P., Fladrich, U., Fuentes-Franco, R., Gröger, M., v. Hardenberg, J., Hieronymus, J., Karami, M.P., Keskinen, J.-P., Koenigk, T., Makkonen, R., Massonnet, F., Ménégos, M., Miller, P.A., Moreno-Chamarro, E., Nieradzik, L., van Noije, T., Nolan, P., O'Donnell, D., Ollinaho, P., van den Oord, G., Ortega, P., Prims, O.T., Ramos, A., Reerink, T., Rousset, C., Ruprich-Robert, Y., Le Sager, P., Schmith, T., Schrödner, R., Serva, F., Sicardi, V., Sloth Madsen, M., Smith, B., Tian, T., Tourigny, E., Uotila, P., Vancoppenolle, M., Wang, S., Wärlind, D., Willén, U., Wyser, K., Yang, S., Yepes-Arbós, X. & Zhang, Q. 2022. The EC-Earth3 Earth system model for the Coupled Model Intercomparison Project 6. *Geoscientific Model Development* 15: 2973–3020.
465. Ekberzade, B., Yetemen, O., Omer Lutfi, S. & Dalfes, H.N. 2022. Simulating the potential forest ranges in an old land: the case for Turkey's forests. *Biodiversity & Conservation* 31: 3217–3236.

466. Fisher, J.B., Sikka, M., Block, G.L., Schwalm, C.R., Parazoo, N.C., Kolus, H.R., Sok, M., Wang, A., Gagne-Langmann, A., Lawal, S., Guillaume, A., Poletti, A., Schaefer, K.M., El Masri, B., Levy, P.E., Wei, Y., Dietze, M.C. & Huntzinger, D.N. 2022. The Terrestrial Biosphere Model Farm. *Journal of Advances in Modeling Earth Systems* 14: e2021MS002676.
467. Gregor, K. Knoke, T., Krause, A., Reyer, C.P.O., Lindeskog, M., Papastefanou, P., Smith, B., Lansø, A.-S. & Rammig, A. 2022. Trade-offs for climate-smart forestry in Europe under uncertain future climate. *Earth's Future* 10: e2022EF002796.
468. Han, Q., Zhang, J., Shi, X., Zhou, D., Ding, Y. & Peng, S. 2022. Ecological function-oriented vegetation protection and restoration strategies in China's Loess Plateau. *Journal of Environmental Management* 323: 116290.
469. He, P., Ma, X., Meng, X., Han, Z., Liu, H., Sun, Z. 2022. Spatiotemporal evolutionary and mechanism analysis of grassland GPP in China. *Ecological Indicators* 143: 109323.
470. Henry, R.C., Arneth, A., Jung, M., Rabin, S.S., Rounsevell, M.D., Warren, F. & Alexander, P. 2022. Global and regional health and food security under strict conservation scenarios. *Nature Sustainability* 5: 303–310.
471. Krause, J., Harfoot, M., Hoeks, S., Anthoni, P., Brown, C., Rounsevell, M. & Arneth, A. 2022. How more sophisticated leaf biomass simulations can increase the realism of modelled animal populations. *Ecological Modelling* 471: 110061.
472. Li, H., Renssen, H. & Roche, D.M. 2022. Comparison of green-to-desert Sahara transitions between the Holocene and the last interglacial. *Climate of the Past* 18: 2303-2319.
473. Li, N., Song, L., Sack, D., Lu, Z., Yu, F., Gao, G., Li, D., Li, M., Yang, Y., Zong, Y. & Jie, D. 2022. Phytolith and simulation evidence for precipitation-modulated vegetation dynamics along the East Asian monsoon margin. *Palaeogeography, Palaeoclimatology & Palaeoecology* 590: 110842.
474. Ma, J., Olin, S., Anthoni, P., Rabin, S.S., Bayer, A.D., Nyawira, S.S. & Arneth, A. 2022. Modeling symbiotic biological nitrogen fixation in grain legumes globally with LPJ-GUESS (v4.0, r10285). *Geoscientific Model Development* 15: 815-839.
475. Ma, J., Rabin, S.S., Anthoni, P., Bayer, A.D., Nyawira, S.S., Olin, S., Xia, L. & Arneth, A. 2022. Assessing the impacts of agricultural managements on soil carbon stocks, nitrogen loss, and crop production – a modelling study in eastern Africa. *Biogeosciences* 19: 2145–2169.
476. Magerl, A., Matej, S., Kaufmann, L., Le Noë, J., Erb, K. & Gingrich, S. 2022. Forest carbon sink in the U.S. (1870–2012) driven by substitution of forest ecosystem service flows. *Resources, Conservation & Recycling* 176: 105927.
477. Mäki, M., Ryhti, K., Fer, I., Tupek, B., Vestin, P., Roland, M., Lehner, I., Köster, E., Lehtonen, A., Bäck, J., Heinonsalo, J., Pumpanen, J. & Kulmala, L. 2022. Heterotrophic and rhizospheric respiration in coniferous forest soils along a latitudinal gradient. *Agricultural & Forest Meteorology* 317: 108876.
478. Martín Belda, D., Anthoni, P., Wårlind, D., Olin, S., Schurgers, G., Tang, J., Smith, B. & Arneth, A. 2022. LPJ-GUESS/LSMv1.0: a next-generation land surface model with high ecological realism. *Geoscientific Model Development* 15: 6709–6745. DOI 10.5194/gmd-15-6709-2022.
479. Meunier, F., Verbruggen, W., Verbeeck, H. & Peaucelle, M. 2022. Low sensitivity of three terrestrial biosphere models to soil texture over the South American tropics. *Geoscientific Model Development* 15: 7573-7591.
480. Oberpriller, J., Herschlein, C., Anthoni, P., Arneth, A., Krause, A., Rammig, A., Lindeskog, M., Olin, S. & Hartig, F. 2022. Climate and parameter sensitivity and induced uncertainties in carbon stock projections for European forests (using LPJ-GUESS 4.0). *Geoscientific Model Development* 15: 6495-6519.
481. Qiu, C., Ciais P., Zhu, D., Guenet, B., Chang, J., Chaudhary, N., Kleinen, T., Yu, X., Müller, J., Xi, Y., Zhang, W., Ballantyne, A., Brewer, C., Brovkin, V., Charman, D., Gustafson, A., Gallego-Sala, A.V., Gasser, T., Holden, J., Joos, F., Kwon, M.J., Lauerwald, R., Miller, P. A., Peng, S., Page, S., Smith, B., Stocker, B.D., Sanne, B., Salmon, E., Schurgers, G., Shurpali, N.J., Wårlind, D., Westermann, S. 2022. A strong mitigation scenario maintains climate neutrality of northern peatlands. *One Earth* 5: 1–12.
482. Rabin, S.S., Gérard, F.N. & Arneth, A. 2022. The influence of thinning and prescribed burning on future forest fires in fire-prone regions of Europe. *Environmental Research Letters* 17: 055010.
483. Ruscica, R.C., Sörensson, A.A., Diaz, L.B., Vera, C., Castro, A., Papastefanou, P., Rammig, A., Rezende, L.F.C., Sakschewski, B., Thonicke, K., Viovy, N. & von Randow, C. 2022. Evapotranspiration trends and variability in southeastern South America: The roles of land-cover change and precipitation variability. *International Journal of Climatology* 42: 2019-2038.

484. Scheel, M., Lindeskog, M., Smith, B., Suvanto, S. & Pugh, T.A.M. 2022. Increased Central European forest mortality explained by higher harvest rates driven by enhanced productivity. *Environmental Research Letters* 17: 114007.
485. Seiler, C., Melton, J.R., Arora, V.K., Sitch, S., Friedlingstein, P., Anthoni, P., Goll, D., Jain, A.K., Joetzjer, E., Lienert, S., Lombardozzi, D., Luyssaert, S., Nabel, J.E.M.S., Tian, H., Vuichard, N., Walker, A.P., Yuan, W. & Zaehle, S. 2022. Are terrestrial biosphere models fit for simulating the global land carbon sink? *Journal of Advances in Modeling Earth Systems* 14: e2021MS002946.
486. Shaw, J.T., Allen, G., Barker, P., Pitt, J.R., Pasternak, D., Bauguitte, S.J.-B., Lee, J., Bower, K.N., Daly, M.C., Lunt, M.F., Ganesan, A.L., Vaughan, A.R., Chibesakunda, F., Lambakasa, M., Fisher, R.E., France, J.L., Lowry, D., Palmer, P.I., Metzger, S., Parker, R.J., Gedney, N., Bateson, P., Cain, M., Lorente, A., Borsdorff, T. & Nisbet, E.G. 2022. Large methane emission fluxes observed from tropical wetlands in Zambia. *Global Biogeochemical Cycles* 36: e2021GB007261.
487. Strandberg, G., Lindström, J., Poska, A., Zhang, Q., Fyfe, R., Githumbi, E., Kjellström, E., Mazier, F., Nielsen, A.B., Sugita, S., Trondman, A.-K., Woodbridge, J. & Gaillard, M.-J. 2022. Mid-Holocene European climate revisited: New high-resolution regional climate model simulations using pollen-based land-cover. *Quaternary Science Reviews* 281: 107431.
488. Su, Y., Zhang, J., Peng, S. & Ding, Y. 2022. Simulating ecological functions of vegetation using a dynamic vegetation model. *Forests* 13: 1464.
489. Svystun, T. & Jönsson, A.M. 2022. Exploring *Populus* phenological response to climate change using observational data and ecosystem modelling. *Agricultural & Forest Meteorology* 314: 108766.
490. Vidal-Cordasco, M., Ocio, D., Hickler, T. & Marín-Arroyo, A.B. 2022. Ecosystem productivity affected the spatiotemporal disappearance of Neanderthals in Iberia. *Nature Ecology & Evolution* 6: 1644-1657.
491. Zhao, W., Huan, L., Chen, C. & Renssen, H. 2022. Large-scale vegetation response to the 8.2 ka BP cooling event in East Asia. *Palaeogeography, Palaeoclimatology, Palaeoecology* 608: 111303.
492. Alexander, P., Arneith, A., Henry, R., Maire, J., Rabin, S. & Rounsevell, M.D.A. 2023. High energy and fertilizer prices are more damaging than food export curtailment from Ukraine and Russia for food prices, health and the environment. *Nature Food* 4: 84-95.
493. Bergas-Massó, E., Gonçalves Ageitos, M., Myriokefalitakis, S., Miller, R.L., van Noije, T., Le Sager, P., Montané Pinto, G. & Pérez Garcia-Pando, C. 2023. Pre-industrial, present and future atmospheric soluble iron deposition and the role of aerosol acidity and oxalate under CMIP6 emissions. *Earth's Future* 11: e2022EF003353.
494. Bergkvist, J., Lagergren, F., Linderson Finnander, M.-L., Miller, P., Lindeskog, M. & Jönsson, A.M. 2023. Modelling managed forest ecosystems in Sweden: An evaluation from the stand to the regional scale. *Ecological Modelling* 477: 110253.
495. Holm, J.A., Medvigy, D.M., Smith, B., Dukes, J.S., Beier, C., Mishurov, M., Xu, X., Lichstein, J.W., Allen, C.D., Larsen, K.S., Luo, Y., Ficken, C., Pockman, W.T., Anderegg, W.R.L. & Rammig, A. 2023. Exploring the impacts of unprecedented climate extremes on forest ecosystems: hypotheses to guide modeling and experimental studies. *Biogeosciences* 20: 2117-2142.
496. Huntley, B., Allen, J.R.M., Forrest, M., Hickler, T., Ohlemüller, R., Singarayer, J.S. & Valdes, P.J. 2023. Global biome patterns of the Middle and Late Pleistocene. *Journal of Biogeography* 50: 1352-1372.
497. Lin, S., Hu, Z., Wang, Y., Chen, X., He, B., Song, Z., Sun, S., Wu, C., Zheng, Y., Xia, X., Liu, L., Tang, J., Sun, Q., Joos, F. & Yuan, W. 2023. Underestimated interannual variability of terrestrial vegetation production by Terrestrial Ecosystem Models. *Global Biogeochemical Cycles* 37: e2023GB007696.
498. Lu, Z., Chen, D., Wyser, K., Fuentes-Franco, R., Olin, S., Zhang, Q., Wu, M. & Ahlström, A. 2023. Natural decadal variability of global vegetation growth in relation to major decadal climate modes. *Environmental Research Letters* 18: 01403.
499. Ma, J., Anthoni, P., Olin, S., Rabin, S.S., Bayer, A.D., Xia, L. & Arneith, A. 2023. Estimating the global influence of cover crops on ecosystem service indicators in croplands with the LPJ-GUESS model. *Earth's Future* 11: e2022EF003142.
500. Reiter, K., Plutzer, C., Moser, D., Semenchuk, P., Erb, K.-H., Essl, F., Gattringer, A., Haberl, H., Krausmann, F., Lenzner, B., Wessely, J., Matej, S., Pouteau, R. & Dullinger, S. 2023. Human appropriation of net primary production as driver of change in landscape-scale vertebrate richness. *Global Ecology & Biogeography* 13: 855-866.

501. Sakala, D., Olin, S. & Santos, M.J. 2023. The effect of charcoal production on carbon cycling in African biomes, *Global Change Biology Bioenergy* DOI 10.1111/gcbb.13037.
502. Stratmann, T.S.M., Forrest, M., Traylor, W., Dejid, N., Olson, K.A., Mueller, T. & Hickler, T. 2023. Movement drives population dynamics of one of the most mobile ungulates on Earth: Insights from a mechanistic model. *Ecology* 103: e3071.
503. Teckentrup, L., De Kauwe, M.G., Abramowitz, G., Pitman, A.J., Ukkola, A.M., Hobeichi, S., François, B. & Smith, B. 2023. Opening Pandora's box: reducing global circulation model uncertainty in Australian simulations of the carbon cycle. *Earth System Dynamics* 14: 549–576.
504. Tschumi, E., Lienert, S., Bastos, A., Ciais, P., Gregor, K., Joos, F., Knauer, J., Papastefanou, P., Rammig, A., van der Weel, K., Williams, K., Xu, Y., Zaehle, S. & Zscheischler, J. 2023. Large variability in simulated response of vegetation composition and carbon dynamics to variations in drought heat occurrence. *Journal of Geophysical Research – Biogeosciences* 128: e2022JG007332.
505. Vella, R., Forrest, M., Lelieveld, J. & Tost, H. 2023. Isoprene and monoterpene simulations using the chemistry–climate model EMAC (v2.55) with interactive vegetation from LPJ-GUESS (v4.0). *Geoscientific Model Development* 16: 885–906.
506. Zhang, H., Bai, J., Sun, R., Wang, Y., Pan, Y., McGuire, P.C. & Xiao, Z. 2023. Improved global Gross Primary Productivity estimation by considering canopy nitrogen concentrations and multiple environmental factors. *Remote Sensing* 15: 698.
507. Zhang, W., Schurgers, G., Peñuelas, J., Fensholt, R., Yang, H., Tang, J., Tong, X., Ciais, P., Brandt, M. 2023. Recent decrease of the impact of tropical temperature on the carbon cycle linked to increased precipitation. *Nature Communications* 14: 965.

### Other peer-reviewed publications

508. Knorr, W., Smith, B., Widłowski, J.L., Pinty, B. & Gobron, N. 2004. Combining remote sensing techniques with productivity models: a case study for monitoring carbon stocks in northern European forests. In Stamatiadis, S., Lynch, J.M. & Schepers, J.S. (eds) *Remote Sensing for Agriculture and the Environment*. OECD Publications, ella, Larissa, Greece, pp. 52–64.
509. Bradshaw, R.H.W. & Boyle, J. 2007. Global and regional reconstruction of Holocene vegetation, fire and land-use. *PAGES News* 15.
510. Smith, B., Aasa, A., Ahas, R., Blenckner, T., Callaghan, T., de Chazal, J., Humborg, C., Jönsson, A.M., Kellomäki, S., Kull, A., Lehtikoinen, E., Mander, Ü., Nöges, P., Nöges, T., Rounsevell, M., Sofiev, M., Tryjanowski, P. & Wolf, A. 2008. Climate-related change in terrestrial and freshwater ecosystems. In: BACC Author Team, *Assessment of Climate Change for the Baltic Sea Basin*. Springer, Berlin, pp 221–308.
511. Wramneby, A., Smith, B. & Samuelsson, P. 2009. Hotspots of vegetation–climate feedbacks under future greenhouse forcing in Europe. *iLEAPS Newsletter* 7: 26–27.
512. Arneht, A., Lehsten, V., Thonicke, K. & Spessa, A. 2010. Climate–fire interactions and savanna ecosystems: a dynamic vegetation modelling study for the African continent. In: Hill, M.J. & Hanan, N.P. (eds) *Ecosystem Function in Savannas*, CRC Press.
513. Shafer, S.L., Atkins, J., Bancroft, B.A., Bartlein, P.J., Lawler, J.J., Smith, B. & Wilsey, C.B. 2012. *Projected Future Climate and Vegetation Changes and Potential Biotic Effects for Fort Benning, Georgia; Fort Hood, Texas; and Fort Irwin, California*. USGS Scientific Investigations Report 2011–5099. U.S. Geological Survey, Reston, Virginia.
514. Lehsten, V. & Scott, A.V. 2014. European projections of habitats and carbon stocks: Negative effects of climate and positive effects of CO<sub>2</sub> changes dominate, but land use is also of importance. In: Henle, K., Potts, S.G., Kunin, W.E., Matsinos, Y.G., Similä, J., Pantis, J.D., Grobelnik, V., Penev, L. & Settele, J. (eds) *Scaling in Ecology and Biodiversity Conservation*. Pensoft Publishers, Sofia, pp. 47–51.
515. Papanikolaou, A.D., Kallimanis, A.S., Henle, K., Lehsten, V., Pe'er, G., Pantis, J.D., Mazaris, A.D. 2014. Climate and land-use change affecting ecological network efficiency: The case of the European grasslands. In: Henle, K., Potts, S.G., Kunin, W.E., Matsinos, Y.G., Similä, J., Pantis, J.D., Grobelnik, V., Penev, L. & Settele, J. (eds) *Scaling in Ecology and Biodiversity Conservation*. Pensoft Publishers, Sofia, pp. 156–160.

516. Marquer, L., Dallmeyer, A., Poska, A., Pongratz, J., Smith, B. & Gaillard, M.-J. 2018. Modeling past human-induced vegetation change is a challenge—the case of Europe. *PAGES Magazine* 26: 12-13.
517. Zaehle, S. 2019. Dynamic Global Vegetation Models. In: Schulze, E.-D., Beck, E., Buchmann, N., Clemens, S., Müller-Hohenstein, K. & Scherer-Lorenzen, M. *Plant Ecology*, 2<sup>nd</sup> ed. Springer Verlag, Berlin, pp. 843-863.
518. Horion, S., Verbruggen, W., Bernadino, P., Souverijns, N., de Keersmaecker, W., Fenshold, R., Schurgers, G., van der Kerchove, R., Verbeeck, H., Verbesselt, J. & Somers, B. 2021. Abrupt change in dryland ecosystem functioning: recent advances and lessons learnt from the U-Turn project. *International Geoscience & Remote Sensing Symposium (IGARSS) 2021-July*: 1394-1397.
519. Maire, J., Alexander, P., Anthoni, P., Huntingford, C., Pugh, T.A.M., Rabin, S., Rounsevell, M. & Arneth, A. 2022. A new modelling approach to adaptation-mitigation in the land system. In: *Climate Adaptation Modelling*, Springer, Cham, pp. 133-140.
520. Xia, J. 2022. Overview of traceability analysis. In: Luo, Y. & Smith, B. (eds) *Land Carbon Cycle Modeling: Matrix Approach, Data Assimilation, & Ecological Forecasting*, CRC Press, Boca Raton, FL, pp. 139-146.

### Doctoral theses

521. Hickler, T. 2004. Towards an integrated ecology through mechanistic modelling of ecosystem structure and functioning. Scripta Academica Lundensia. Meddelanden från Lunds Universitets Geografiska Institution. Avhandlingar 153. PhD thesis, Lund University.
522. Gritti, E.S. 2006. Global changes and European terrestrial ecosystems. Scripta Academica Lundensia. Meddelanden från Lunds Universitets Geografiska Institution. Avhandlingar 160. PhD thesis, Lund University.
523. Koca, D. 2006. Impacts of regional climate change on Swedish forests: An evaluation using process-based regional ecosystem modelling approach. Scripta Academica Lundensia. Meddelanden från Lunds Universitets Geografiska Institution. Avhandlingar 162. PhD thesis, Lund University.
524. Morales, P. 2006. Modeling carbon and water fluxes in European terrestrial ecosystems. Scripta Academica Lundensia. Meddelanden från Lunds Universitets Geografiska Institution. Avhandlingar 159. PhD thesis, Lund University.
525. Yurova, A. 2007. Hydrological aspects of the carbon balance in a boreal catchment: A model study. Scripta Academica Lundensia. Meddelanden från Lunds Universitets Geografiska Institution. Avhandlingar 173. PhD thesis, Lund University.
526. Rice, J. 2009. Modeling the sensitivity of Oregon Cascade forest and nonforest vegetation to changes in climate, disturbance and atmospheric CO<sub>2</sub> concentrations. Chapter 4 in: Forest-meadow dynamics in the central western Oregon Cascades: topographic, biotic, and environmental change effects. PhD thesis, Oregon State University. <http://hdl.handle.net/1957/13781>.
527. Wramneby, A. 2010. The role of vegetation-climate feedbacks in regional Earth system dynamics. Scripta Academica Lundensia. Meddelanden från Lunds Universitets Geografiska Institution. Avhandlingar 187. PhD thesis, Lund University.
528. Ahlström, A. 2013. Terrestrial ecosystem interactions with global climate and socio-economics. Avhandlingar från Institutionen för naturgeografi och ekosystemanalys (INES), Lunds universitet. PhD thesis, Lund University.
529. Olofsson, J. 2013. The Earth – climate and anthropogenic interactions in a long time perspective. Avhandlingar från Institutionen för naturgeografi och ekosystemanalys (INES), Lunds universitet. PhD thesis, Lund University.
530. Snell, R. 2013. Simulating vegetation migration in response to climate change in a dynamic vegetation-climate model. PhD thesis, Faculty of Forestry, University of Toronto.
531. Wårlind, D. 2013. The role of carbon-nitrogen interactions for terrestrial ecosystem dynamics under global change: a modelling perspective. Avhandlingar från Institutionen för naturgeografi och ekosystemanalys (INES), Lunds universitet. PhD thesis, Lund University.
532. Seiler, C. 2014. The sensitivity of tropical forests to climate variability and change in Bolivia. PhD thesis, Wageningen University, Wageningen, The Netherlands.
533. Tang, J. 2014. Linking distributed hydrological processes with ecosystem vegetation dynamics and carbon cycling. Avhandlingar från Institutionen för naturgeografi och ekosystemanalys (INES), Lunds universitet. PhD thesis, Lund University.



534. Olin, S. 2015. Ecosystems in the Anthropocene: the role of cropland management for carbon and nitrogen cycle processes. Avhandlingar från Institutionen för naturgeografi och ekosystemanalys (INES), Lunds universitet. PhD thesis, Lund University.
535. Zhang, W. 2015. The role of biogeophysical feedbacks and their impacts in the arctic and boreal climate system. Avhandlingar från Institutionen för naturgeografi och ekosystemanalys (INES), Lunds universitet. PhD thesis, Lund University.
536. Engström, K. 2016. Pathways to future cropland. Assessing uncertainties in socio-economic processes by applying a global land-use model. Avhandlingar från Institutionen för naturgeografi och ekosystemanalys (INES), Lunds universitet. PhD thesis, Lund University.
537. Pirzamanbein, B. 2016. Reconstruction of past European land cover based on fossil pollen data. PhD thesis, Lund University.
538. Sallaba, F. 2016. Biophysical and human controls of land productivity under global change: development and demonstration of parsimonious modelling techniques. Avhandlingar från Institutionen för naturgeografi och ekosystemanalys (INES), Lunds universitet. PhD thesis, Lund University.
539. Chaudhary, N. 2017. Peatland dynamics in response to past and potential future climate change. Avhandlingar från Institutionen för naturgeografi och ekosystemanalys (INES), Lunds universitet. PhD thesis, Lund University.
540. Boke-Olén, N. 2017. Global savannah phenology: integrating earth observation, ecosystem modelling, and PhenoCams. Avhandlingar från Institutionen för naturgeografi och ekosystemanalys (INES), Lunds universitet. PhD thesis, Lund University.
541. Strandberg, G. 2017. Modelling regional climate-vegetation interactions in Europe. PhD thesis, Stockholm University.
542. Wang, Y. 2017. Data and mechanistic model constraints on plant refugia and woolly mammoth extinction after the last glaciation. PhD thesis, University of Wisconsin-Madison, U.S.A.
543. Wu, M. 2017. Land-atmosphere interactions and regional Earth system dynamics due to natural and anthropogenic vegetation changes. Avhandlingar från Institutionen för naturgeografi och ekosystemanalys (INES), Lunds universitet. PhD thesis, Lund University.
544. Blanke, J.H. 2017. European ecosystems on a changing planet: integrating climate change and land-use intensity data. Avhandlingar från Institutionen för naturgeografi och ekosystemanalys (INES), Lunds universitet. PhD thesis, Lund University.
545. Dubber, W. 2018. Natural and social dimensions of forest carbon accounting. Avhandlingar från Institutionen för naturgeografi och ekosystemanalys (INES), Lunds universitet. PhD thesis, Lund University.
546. Krause, A.T. 2018. Effects of land-based climate mitigation on ecosystem carbon cycling and beyond. PhD thesis, Institut für Meteorologie und Klimaforschung—Atmosphärische Umweltforschung (IMK-IFU), Karlsruhe Institute of Technology, Germany.
547. Pachzelt A. 2019. Interaktion von Großgrasfressern und Vegetation in Afrika. (Interaction of large grazers and vegetation in Africa). PhD thesis, Goethe University Frankfurt.
548. Verbruggen, W. 2021. Dryland ecosystems of the Sudano-Sahel: a vegetation model perspective. PhD thesis, Ghent University, Belgium/University of Copenhagen, Denmark.
549. Gustafson, A. 2022. On the role of terrestrial ecosystems in a changing Arctic. PhD thesis, Lund University, Lund, Sweden.
550. Guan, Q. 2023. Impacts of land processes on lake eutrophication in China. PhD thesis, University of Copenhagen, Copenhagen, Denmark.
551. Pongracz, A. 2023. Quantifying the impact of winter warming on the Arctic carbon cycle. PhD thesis, Lund University, Sweden.
552. Teckentrup, L. 2023. The Future of Terrestrial Carbon in Australia. PhD thesis, University of New South Wales, Sydney, Australia.

### Non peer-reviewed publications

553. Smith, B. 2005. Klimat och ekosystem knådas i datamodell. *Miljöforskning* 1.05: 9-10.

554. Smith, B. 2005. Lummigare skogar i framtida Sverige. *Miljöforskning* 5-6.05: 26-27.
555. Månsson, L., Hickler, T., Rammig, A. 2006. Large herbivore dynamics in grassland ecosystems. In: Månsson, L. Understanding Weather Effects on, in and From Large Herbivore Population Dynamics. PhD thesis, Lund University.
556. Tagesson, T. 2006. Aspects of the carbon cycle in terrestrial ecosystems of Northeastern Småland. SKB Report R-06-41, Swedish Nuclear Fuel & Waste Management Company, SKB, Stockholm.
557. Smith, B., Hickler, T. & Miller, P. 2007. Modellering av vegetationsförskjutningar i Sverige under framtida klimatscenarier. In: *Sverige Inför Klimatförändringarna – Hot och Åtgärder*. Slutbetänkande av Klimat- och sårbarhetsutredningen. Appendix B 23. Statens Offentliga Utredningar SOU 2007:60, Stockholm.
558. Tagesson, T. 2008. Describing regional carbon balances using a dynamic vegetation model. In: Löfgren, A. (ed) *The Terrestrial Ecosystems at Forsmark and Laxemar-Simpevarp*. SKB Report. R-08-01. Swedish Nuclear Waste & Management Company, SKB, Stockholm.
559. Kjellström, E., Strandberg, G., Brandefelt, J., Näslund, J.-O., Smith, B. & Wohlfart, B. 2009. *Climate Conditions in Sweden in a 100,000-year Time Perspective*. SKB Technical Report TR-09-04, Swedish Nuclear Fuel & Waste Management Company, SKB, Stockholm.
560. Lagergren, F., Smith, B., Jönsson, A.M. & Miller, P. 2009. Simulations of forest and forest management. *Mistra-SWECIA Annual Report 2008*. SMHI, Norrköping, Sweden, p. 10.
561. Miller, P.A. & Smith, B. 2009. Climate change impacts on high-latitude terrestrial ecosystems. *Mistra-SWECIA Annual Report 2008*. SMHI, Norrköping, Sweden, p. 11.
562. Seaquist, J.W., Ardö, J., Eklundh, L., Hickler, T. & Sjöström, M. 2009. The grass is greener in the Sahel—The view from Lund. *Global Land Project (GLP) News* 5/2009.
563. Nycander, J., Persson, T., Smith, B., Jones, C., Klein, R. & Rummukainen, M. 2010. Models in Mistra-SWECIA. *Mistra-SWECIA Annual Report 2009*. SMHI, Norrköping, Sweden, pp. 6-9.
564. Lagergren, F. & Jönsson, A.M. 2010. Climate change and forests' sensitivity to storm and spruce bark beetle damage. *Mistra-SWECIA Newsletter* 1: 2010, pp. 11-17.
565. Wramneby, A., Smith B. & Samuelsson, P. 2010. Future hotspots in European climate-vegetation feedbacks. *Mistra-SWECIA Newsletter* 1: 2010, pp. 8-10.
566. Hickler, T., Vohland, K., Costa, L., Miller, P.A., Smith, B., Feehan, J., Kühn, I., Cramer, W. & Sykes, M.T. 2011. Vegetation on the move—where do conservation strategies have to be re-defined? In: Settele, J., Penev, L., Georgiev, T., Grabaum, R., Grobelnik, V., Hammen, V., Klotz, S., Kotarac, M. & Kühn, I. (eds.) *Atlas of Biodiversity Risk*. Pensoft, Sofia, Bulgaria, pp. 238-239.
567. Vohland, K., Hickler, T., Feehan, J., Gumpenberger, M., Araújo, M. & Cramer, W. 2011. Priority setting for nature conservation. In: Settele, J., Penev, L., Georgiev, T., Grabaum, R., Grobelnik, V., Hammen, V., Klotz, S., Kotarac, M. & Kühn, I. (eds.) *Atlas of Biodiversity Risk*. Pensoft, Sofia, Bulgaria, pp. 234-237.
568. Moreno, J., Arianoutsou, M., González-Cabán, A., Mouillot, F., Oechel, W., Spano, D., Thonicke, K., Vallejo, V. & Vélez, R. 2014. Forest fires under climate, social and economic changes in Europe, the Mediterranean and other fire-affected areas of the world: FUME: lessons learned and outlook, 56 pp.
569. Krause, A. & Rammig, A. 2019. Folgen des Klimawandels in Bayern und mögliche Vermeidungs- und Anpassungsstrategien für Gesellschaft, Landnutzung, Ökosystemleistungen und Bioversität. *Umwelt - Technologie und Energie in Bayern*, 18-19.
570. Krause, A., Papastefanou, P. & Rammig, A. 2021. Wie werden häufigere Störungsereignisse die Kohlenstoffspeicherung in bayerischen Wäldern beeinflussen? Eine Abschätzung mit einem dynamischen Vegetationsmodell. *Mitteilungen der Fränkischen Geographischen Gesellschaft*, 67, 1-9.
571. Lu, Z. & Smith, B. 2021. Solar panels in Sahara could boost renewable energy but damage the global climate—here's why. *The Conversation*.
572. Krause, A., Obermeier, W. & Rammig, A. (in press). Konzept, Potenzial und Risiken BECCS (Bioenergy with Carbon Capture and Storage). In: Lozán, J., Graßl, H., Breckle, S.-W., Kasang, D. & Quante, M. (eds.) *WARNSIGNAL KLIMA: Technische Eingriffe gegen die Erderwärmung?*