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2017

Feurdean, A., Florescu, G., Vanniere, B., Tantau, I., O'Hara, R. B., Pfeiffer, Mirjam, Moskal-del Hoyo, M., Hickler, T. (2017) Fire has been an important driver of forest dynamics in the Carpathian Mountains during the Holocene. *Forest Ecology and Management*, 389. pp. 15-26. ISSN 0378-1127

Panait, A., Diaconu, A., Galka, M., Grindean, R., Hutchinson, S. M., Hickler, T., Lamentowicz, M., Mulch, A., Tanțău, I., Werner, C., Feurdean, A. (2017) Hydrological conditions and carbon accumulation rates reconstructed from a mountain raised bog in the Carpathians: A multi-proxy approach. *Catena*, 152, 57-68.

Barnosky, A.D. and Hadly, E. A. and Gonzalez, P. and Head, J. and Polly, P. D. and Lawing, A. M. and Eronen, J. T. and Ackerly, D. D. and Alex, K. and Biber, E. and Blois, J. and Brashares, J. and Ceballos, G. and Davis, E. and Dietl, G. P. and Dirzo, R. and Doremus, H. and Fortelius, M. and Greene, H. W. and Hellmann, J. and Hickler, T. and Jackson, S. T. and Kemp, M. and Koch, P. L. and Kremen, C. and Lindsey, E. L. and Looy, C. and Marshall, C. R. and Mendenhall, C. and Mulch, A. and Mychajliw, A. M. and Nowak, C. and Ramakrishnan, U. and Schnitzler, J. and Das Shrestha, K. and Solari, K. and Stegner, L. and Stegner, M. A. and Stenseth, N. C. and Wake, M. H. and Zhang, Z. (2017) Merging paleobiology with conservation biology to guide the future of terrestrial ecosystems. *Science*, 355 (6325).

Rollinson, C. R., Liu, Y., Raiho, A., Moore, D. J., 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 CO2 sensitivities of net primary productivity in ecosystem models do not agree with empirical data in temperate forests of eastern North America. *Global change biology*.

2016

Hantson, S., Arneth, A., Harrison, S. S., Kelley, D. I., Prentice, I Colin, Rabin, S. S., Archibald, S., Mouillot, F., Arnold, S. R., Artaxo, P., Bachelet, D., Ciais, P., Forrest, M., Friedlingstein, P., Hickler, T., Kaplan, J. O., Kloster, S., Knorr, W., Lasslop, G., Li, F., Mangeon, S., Melton, J. R., Meyn, A., Sitch, S., Spessa, A., van der Werf, G. R., Voulgarakis, A., Yue, C. (2016) The status and challenge of global fire modelling. *Biogeosciences*, 13 (11). pp. 3359-3375. ISSN 1726-4170

Feurdean, A., Panait, A., Galka, M., Diaconu, A., Hutchinson, S., Mulch, A., Tantau, I., Hickler, T. (2016) A 9000 year perspective on carbon accumulation rates under changing hydro-climate and vegetation conditions in a mountain peatland, northern Carpathians, Romania. *EGU General Assembly Conference Abstracts*, 18. p. 9355.

Falge, E., Brümmer, C., Schmullius, C., Scholes, R., Twine, W., Mudau, A., Midgley, G., Hickler, T., Bradshaw, K., Lück, W., Thiel-Clemen, T., du Toit, J., Sankaran, M., Kutsch, W. (2016) Using ground-and satellite-based measurements and models to quantify response to multiple disturbances and climate change in South African semi-arid ecosystems. EGU General Assembly Conference Abstracts, 18. p. 7680.

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 (3). pp. 544-554. ISSN 0305-0270

Feurdean, A., Galka, M., Tantau, I., Geantă, Anca, Hutchinson, S.M., Hickler, T. (2016) Tree and timberline shifts in the northern Romanian Carpathians during the Holocene and the responses to environmental changes. *Quaternary Science Reviews*, 134. pp. 100-113. ISSN 0277-3791

Vannière, 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*.

Bowler, D. E., Hof, C., Haase, P., Kröncke, I., Schweiger, O., Adrian, R., Baert, L., Bauer, H.G., Blick, T., Brooker, R., Dekoninck, W., Domisch, S., Eckmann, R., Hendrickx, F., Hickler, T., Klotz, S., Kraberg, A., Kühn, I., Matesanz, S., Meschede, A., Neumann, H., O'Hara, B., Russell, D., Sell, A., Sonnewald, M., Stoll, S., Sundermann, A., Tackenberg, O., Türkay, M., Valladares, F., van Herk, K., van Klink, R., Vermeulen, R., Voigtländer, K., Wagner, R., Welk, E., Wiemers, M., Wiltshire, K., Böhning-Gaese, K. (2016) Cross-realm assessment of climate change impacts on species' abundance trends. *Nature Ecology and Evolution*. (Submitted)

Schleuning, M., Fründ, J., Schweiger, O., Welk, E., Albrecht, J., Albrecht, M., Beil, M., Benadi, G., Blüthgen, N., Bruelheide, H., Böhning-Gaese, K., Dehling, D. M., Dormann, C. F., Exeler, N., Farwig, N., Harpke, A., Hickler, T., Kratochwil, A., Kuhlmann, M., Kühn, I., Michez, D., Mudri-Stojnić, S., Plein, M., Rasmont, P., Schwabe, A., Settele, J., Vujić, A., Weiner, C. N., Wiemers, M., Hof, C. (2016) Ecological networks are more sensitive to plant than to animal extinction under climate change. *Nature Communications*, 7 (13965). ISSN 2041-1723

Rabin, S. S., Melton, J. R., Lasslop, G., Bachelet, D., Forrest, M., Hantson, S., Li, F., Mangeon, S., Yue, C., Arora, V. K., Hickler, T., Kloster, S., Knorr, W., Nieradzik, L., Spessa, A., Folberth, G. A., Sheehan, T., Voulgarakis, A., Prentice, I Colin, Sitch, S., Kaplan, J. O., Harrison, S., Arneth, A. (2016) The Fire Modeling Intercomparison Project (FireMIP), phase 1: Experimental and analytical protocols. *Geosci. Model Dev.* (Unpublished)

Feurdean, A., Munteanu, C., Kümmerle, T., Nielsen, A. B., Hutchinson, Simon M, Ruprecht, E., Parr, C. L., Perşoiu, A., Hickler, T. (2016) Long-term land-cover/use change in a traditional farming landscape in Romania inferred from pollen data, historical maps and satellite images. *Regional Environmental Change*. pp. 1-15. ISSN 1436-3798

Francois, L., Henrot, A.J., Dury, M., Jacquemin, I., Munhoven, G., Friend, A., Radermacher, T. T., Hacket-Pain, A., Hickler, T., Tian, H., Morfopoulos, C., Ostberg, S., Chang, J., Rafique, R., Nishina, K. (2016) Response to droughts and heat waves of the productivity of

natural and agricultural ecosystems in Europe within ISI-MIP2 historical simulations. Geophysical Research Abstracts, 18.

2015

Forrest, M., Eronen, Jussi T., Utescher, T., Knorr, G., Stepanek, C., Lohmann, G., Hickler, T. (2015) Climate–vegetation modelling and fossil plant data suggest low atmospheric CO₂ in the late Miocene. *Climate of the Past*, 11. pp. 1701-1732.

Vanniere, B., Blarquez, O., Brücher, T., Colombaroli, D, Connor, S., Doyen, E, Feurdean, A., Hickler, T., Lemmen, C., Leys, B., Massa, C., Olofsson, J., Rius, D. (2015) Prehistoric fire regime disruptions in southern European regions. *Quaternary Science Reviews*. ISSN 0277-3791

Feurdean, A., Galka, M., Kuske, E., Tantau, I., Lamentowicz, M., Florescu, G., Hutchinson, S.M., Liakka, Johan, Mulch, A., Hickler, T. (2015) Last Millennium hydro-climate variability in Central Eastern Europe (Northern Carpathians, Romania). *Holocene*, 25 (7). pp. 1179-1192.

Medlyn, Belinda E, Zaehle, Soenke, De Kauwe, Martin G, Walker, Anthony P, Dietze, M. C., Hanson, Paul J, Hickler, T., Jain, A. K., Luo, Yiqi, Parton, William, Prentice, I Colin, Thornton, Peter E, Wang, S., Wang, Ying-Ping, Weng, Ensheng, Iversen, Colleen M, McCarthy, Heather R, Warren, Jeffrey M, Oren, Ram, Norby, Richard J (2015) Using ecosystem experiments to improve vegetation models. *Nature Climate Change*, 5 (6). pp. 528-534. ISSN 1758-678X

Feurdean, A., Marinova, E., Nielsen, A. B., Liakka, Johan, Veres, D., Hutchinson, S.M., Braun, Mihály, Timar-Gabor, A., Astalos, Ciprian, Mosbrugger, V., Hickler, T. (2015) Origin of the forest steppe and exceptional grassland diversity in Transylvania (central-eastern Europe). *Journal of Biogeography*, 42 (5). pp. 951-963.

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 and Biogeography*, 24. pp. 991-1002.

Seiler, C., Hutjes, R. W. A., Kruijt, B., Hickler, T. (2015) The sensitivity of wet and dry tropical forests to climate change in Bolivia. *Journal of Geophysical Research: Biogeosciences*, 120.

Moncrieff, G. R., Hickler, T., Higgins, S. I. (2015) Intercontinental divergence in the climate envelope of major plant biomes. *Global Ecology and Biogeography*, 24 (3). pp. 324-334.

Vermeulen, M. H. and Kruijt, B. and Hickler, T. and Kabat, P. (2015) Modelling short-term variability in carbon and water exchange in a temperate Scots pine forest. *Earth System Dynamics Discussion* (6). pp. 267-315.

Steinkamp, J. and Hickler, T. (2015) Is drought-induced forest dieback globally increasing? *Journal of Ecology*, 103 (1). pp. 31-43. ISSN 0022-0477

Hof, C., Dehling, D. M., Bonn, A., Burgess, N. D., Eigenbrod, F., Harfoot, M. B. J., Hickler, T., Jetz, W., Marquard, E., Pereira, H. M., Böhning-Gaese, K. (2015) Macroecology meets IPBES. *Frontiers of Biogeography*, 7. pp. 155-167.

Hickler, T., Rammig, A., Werner, C. (2015) Modelling CO₂ Impacts on Forest Productivity. *Current Forestry Reports*, 1 (2). pp. 69-80.

Bowler, D. E., Haase, P., Kröncke, I., Tackenberg, O., Bauer, H.G., Brendel, C., Brooker, R. W., Gerisch, M., Henle, K., Hickler, T., Hof, C., Klotz, S., Kühn, I., Matesanz, S., O'Hara, R. B., Russell, D., Schweiger, O. (2015) A cross-taxon analysis of the impact of climate change on abundance trends in central Europe. *Biological Conservation*, 187. pp. 41-50. ISSN 0006-3207

2014

Liakka J, Colleoni F, Ahrens B, Hickler T (2014) The impact of climate-vegetation interactions on the onset of the Antarctic ice sheet. *Geophysical Research Letters*. Online early, doi:10.1002/2013gl058994

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 Discussions* 11:151-185. doi:10.5194/bgd-11-151-2014

Snell, R. S., Huth, A., Nabel, J. E. M. S., Bocedi, G., Travis, J. M. J., Gravel, D., Bugmann, H., Gutiérrez, A. G., Hickler, T., Higgins, S. I., Reineking, B., Scherstjanoi, M., Zurbriggen, N., Lischke, H. (2014) Using dynamic vegetation models to simulate plant range shifts. *Ecography*, 37 (12). pp. 1184-1197.

Smith, B., Warlind, 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 Discussions*, 11. pp. 2027-2054.

Buendia, C., Arens, S., Hickler, T., Higgins, S. I., Porada, P., Kleidon, A. (2014) On the potential vegetation feedbacks that enhance phosphorus availability – insights from a process-based model linking geological and ecological timescales. *Biogeosciences*, 11 (13). pp. 3661-3683.

2013

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.

Feurdean, A., Liakka, Johan, Vanni re, Boris, Marinaova, E., Hutchinson, S.M., Mosbrugger, Volker, Hickler, T. (2013) 12,000-Years of fire regime drivers in the lowlands of Transylvania (Central-Eastern Europe): a data-model approach. *Quaternary Science Reviews*, 81. pp. 48-61. ISSN 0277-3791

Utescher, T., Böhme, M., Hickler, T., Mosbrugger, V., Portmann, F.T. (2013) Continental climate and vegetation gradients on both sides of the North Atlantic before and after the closure of the Central American Seaway – a comparison based on new Miocene and Pliocene proxy data (Abstract). *Geophysical Research Abstracts*, 14. ISSN 1607-7962

Smith B, Wårlind D, Arneth A, Hickler T, Leadley P, Siltberg J, Zaehle S (2013) Implications of incorporating N cycling and N limitations on primary production in an individualbased dynamic vegetation model. *Biogeosciences* 10:18613-18685.

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, C., Smith, B., Thornton, P. E., Wang, S., Wang, Y. P., Warlind, D., Weng, E. S., Crous, K. Y., Ellsworth, D. S., Hanson, P. J., Seok-Kim, H., Warren, J. M., Oren, R., Norby, R. J. (2013) Forest water use and water use efficiency at elevated CO₂: a model-data intercomparison at two contrasting temperate forest FACE sites. *Global Change Biology*, 19 (6). pp. 1759-1779.

Jeltsch, F., Blaum, N., Brose, U., Chipperfield, J.D., Clough, Y., Farwig, K., Geissler, K., Graham, C.H., Grimm, V., Hickler, T., Huth, A., Maya, F., Meyer, K.M., Pagela, J., Reineking, B., Rillig, M.C., Shea, K., Schurr, F.M., Schröder, B., Tielbörger, K., Weiss, L., Wiegand, K., Wiegand, T., Wirth, C., Zurella, D. (2013) How can we bring together empiricists and modellers in functional biodiversity research? *Basic and Applied Ecology*, 14 (2). pp. 93-101. ISSN 1439-1791

Huntley, B., Allen, J. R. M., Collingham, Y. C., Hickler, T., Lister, A. M., Singarayer, J., Stuart, A. J., Sykes, M., Valdes, P. J. (2013) Millennial climatic fluctuations are key to the structure of last glacial ecosystems. *Public Library of Science One*, 8 (4). e61963.

Feurdean, A., Bhagwat, S.A., Willis, K.J., Birks, J.H.B., Lischke, H., Hickler, T. (2013) Tree migration-rates: narrowing the gap between inferred post-glacial rates and projected rates. *Public Library of Science One*, 8 (8). e71797. ISSN 1932-6203

2012

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 and Biogeography*, 21 (1). pp. 88-99.

Paul, A. G., Hammen, V. C., Hickler, T., Karlson, U. G., Jones, K. C., Sweetman, A. J. (2012) Potential implications of future climate and land-cover changes for the fate and distribution of persistent organic pollutants in Europe. *Global Ecology and Biogeography*, 21 (1). pp. 64-74.

Hickler, T., Vohland, K., Feehan, J., Miller, P.A., Smith, B. H., 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 and Biogeography*, 21 (1). pp. 50-63.

Linder, H. P., Bykova, O., Dyke, J., Etienne, R. S., Hickler, T., Kühn, I., Marion, G., Ohlemüller, R., Schymanski, S. J., Singer, A. (2012) Biotic modifiers, environmental modulation and species distribution models. *Journal of Biogeography*, 39. pp. 2179-2190.

Hartig, F., Dyke, J., Hickler, T., Higgins, S. I., O'Hara, R. B., Scheiter, S., Huth, A. (2012) Connecting dynamic vegetation models to data – an inverse perspective. *Journal of Biogeography*, 39. pp. 2240-2252.

Kümmerle, 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 and Distributions*, 18 (1). pp. 47-59. ISSN 1366-9516

Kümmerle, T., Hickler, T., Olofsson, J., Schurgers, G., Radeloff, V. C. (2012) Refugee species: which historic baseline should inform conservation planning? *Diversity and Distributions*, 18. pp. 1258-1261.

Schleuning, M., Fründ, J., Klein, A.-M., Abrahamczyk, S., Alarcón, R., Albrecht, M., Ersson, G. K. S., Bazarian, S., Böhning-Gaese, K., Bommarco, R., Dalsgaard, B., Dehling, D. M., Gotlieb, A., Hagen, M., Hickler, T., Holzschuh, A., Kaiser-Bunbury, C. N., Krefl, H., Morris, R. J., Sandel, B., Sutherland, W. J., Svenning, J.-C., Tschamntke, T., Watts, S., Weiner, C. N., Werner, M., Williams, N. M., Winqvist, C., Dormann, C. F., Blüthgen, N. (2012) Specialization of mutualistic interaction networks decreases toward tropical latitudes. *Current Biology*, 22. pp. 1925-1931.

Entling, M. H., Schweiger, O., Bacher, S., Espadaler, T., Hickler, T., Kumschick, S., Woodcock, B. A., Nentwig, W. (2012) Species richness-environment relationships of European arthropods at two spatial grains: Habitats and countries. *Public Library of Science One*, 7 (9). e45875. ISSN 1932-6203

Kissling, W. D., Dormann, C. F., Groeneveld, J., Hickler, T., Kühn, I., McInerney, G. J., Montoya, J. M., Römermann, C., Schiffers, K., Schurr, F. M., Singer, A., Svenning, J.-C., Zimmermann, N. E., O'Hara, R. B. (2012) Towards novel approaches to modelling biotic interactions in multispecies assemblages at large spatial extents. *Journal of Biogeography*, 39. pp. 2163-2178.

Feurdean, A., Spessa, A., Magyari, E. K., Willis, K. J., Veres, D., Hickler, T. (2012) Trends in biomass burning in the Carpathian region over the last 15,000 years. *Quaternary Science Reviews*, 45. pp. 111-125.

Kramer, K., Bijlsma, R.-J., Hickler, T., Thuiller, W. (2012) Why would plant species become extinct locally if growing conditions improve? *International Journal of Biological Sciences*, 8 (8). pp. 1121-1129. ISSN 1449-2288

Higgins, S. I., O'Hara, R. B., Bykova, O., Cramer, M. D., Chuine, I., Gerstner, E.-M., Hickler, T., Morin, X., Kearney, M. R., Midgley, G. F., Scheiter, S. (2012) A physiological analogy of the niche for projecting the potential distribution of plants. *Journal of Biogeography*, 39. pp. 2132-2145.

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: Atmospheres*, 116 (D22). D22304. ISSN 0148-0227

Kattge, J., Diaz, S., Lavorel, S., Prentice, C., Leadley, P., Bönisch, G., Garnier, E., Westoby, M., Reich, P. B., Wright, I. J., Cornelissen, J. H. C., Violle, C., Harrison, S. P., van Bodegom, P. M., Reichstein, M., Enquist, B. J., Soudzilovskaia, N. A., Ackerly, D. D., Anand, M., Atkin, O., Bahn, M., Baker, T. R., Baldocchi, D., Bekker, R., Blanco, C. C., Blonder, B., Bond, W. J., Bradstock, R., Bunker, D. E., Casanoves, F., Cavender-Bares, J., Chambers, J. Q., Chapin, F. S., Chave, J., Coomes, D., Cornwell, W. K., Craine, J. M., Dobrin, B. H., Duarte, L., Durka, W., Elser, J., Esser, G., Estiarte, M., Fagan, W. F., Fang, J., Fernandez-Mendez, F., Fidelis, A., Finegan, B., Flores, O., Ford, H., Frank, D., Freschet, G. T., Fyllas, N. M., Gallagher, R. V., Green, W. A., Gutierrez, A. G., Hickler, T., Higgins, S. I., Hodgson, J. G., Jalili, A., Jansen, S., Joly, C. A., Kerkhoff, A. J., Kirkup, D., Kitajima, K., Kleyer, M., Klotz, S., Knops, J. M. H., Kramer, K., Kühn, I., Kurokawa, H., Laughlin, D., Lee, T. D., Leishman, M., Lens, F., Lenz, T., Lewis, S. L., Lloyd, J., Llusia, J., Louault, F., Ma, S., Mahecha, M. D., Manning, P., Massad, T., Medlyn, B. E., Messier, J., Moles, A. T., Müller, S. C., Nadrowski, K., Naeem, S., Niinemets, Ue, Nöllert, S., Nüske, A., Ogaya, R., Oleksyn, J., Onipchenko, V. G., Onoda, Y., Ordonez, J., Overbeck, G., Ozinga, W. A., Patino, S., Paula, S., Pausas, J. G., Penuelas, J., Phillips, O. L., Pillar, V., Poorter, H., Poorter, L., Poschlod, P., Prinzing, A., Proulx, R., Rammig, A., Reinsch, S., Reu, B., Sack, L., Salgado-Negre, B., Sardans, J., Shiodera, S., Shipley, B., Siefert, A., Sosinski, E., Soussana, J. F., Swaine, E., Swenson, N., Thompson, K., Thornton, P., Waldram, M., Weiher, E., White, M., White, S., Wright, S. J., Yguel, B., Zaehle, S., Zanne, A. E., Wirth, C. (2011) TRY - A global database of plant traits. *Global Change Biology*, 17 (9). pp. 2905-2935. ISSN 1354-1013

Yengoh, G.T., Hickler, T., Tchuinte, A. (2011) Agro-climatic resources and challenges to food production in Cameroon. *Geocarto International*, 26 (4). pp. 251-273.

Trivino, M., Thuiller, W., Cabeza, M., Hickler, T., Araujo, M. B. (2011) The Contribution of Vegetation and Landscape Configuration for Predicting Environmental Change Impacts on Iberian Birds. *Public Library of Science One*, 6 (12). e29373. ISSN 1932-6203

Drobyshev, I. M., Niklasson, M., Linderholm, H. W., Seftigen, K., Hickler, T., Eggertsson, O. (2011) Reconstruction of a regional drought index in southern Sweden since AD 1750. *The Holocene*, 21. pp. 667-679.

Jerneck, A., Olsson, L., Ness, B., erberg, S., Baier, M., Clark, E., Hickler, T., Hornborg, A., Kronsell, A., Lovbrand, E., Persson, J. (2011) Structuring sustainability science. *Sustainability Science*, 6 (1). pp. 69-82. ISSN 1862-4065

Kümmerle, T., T. Hickler, J. Olofsson, G. Schurgers, Radeloff, V. C. (2011) Reconstructing range dynamics and range fragmentation of European bison for the last 8000 years. *Diversity and Distributions* 18:47-59.

2010

Schweiger, O., Biesmeijer, J. C., Bommarco, R., Hickler, T., Hulme, P. E., Klotz, S., Kühn, I., Moora, M., Nielsen, A., Ohlemüller, R., Petanidou, T., Potts, S. G., Pysek, P., Stout, J. C.,

Sykes, M. T., Tscheulin, T., Vila, M., Walther, G. R., Westphal, C., Winter, M., Zobel, M., Settele, J. (2010) Multiple stressors on biotic interactions: how climate change and alien species interact to affect pollination. *Biological Reviews* (85). pp. 777-795.

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). pp. 2604-2618.

Gaillard, M.-J., Sugita, S., Mazier, F., Kaplan, J. O., Trondman, A.-K., Broström, A., Hickler, T., Oloffson, J., Kjellström, E., Kunes, P., Lemmen, C., Smith, B., Strandberg, G. (2010) Holocene land-cover reconstructions for studies on land cover-climate feedbacks. *Climate of the past* (6). pp. 307-346.

Calfapietra, C., Ainsworth, E.A., Beier, C., De Angelis, P., Ellsworth, D.S., Godbold, D.L., Hendrey, G.R., Hickler, T., Hoosbeek, M.R., Karnosky, D.F., King, J., Korner, C., Leakey, A.D.B., Lewin, K.F., Liberloo, M., Long, S.P., Lukac, M., Matyssek, R., Miglietta, F., Nagy, J., Norby, R.J., Oren, R., Percy, K.E., Rogers, A., Mugnozza, G.S., Stitt, M., Taylor, G., Ceulemans, R., (2010) Challenges in elevated CO₂ experiments on forests. *Trends in Plant Science*, 15, 5-10.

Drobyshev, I. M., Overgaard, R., Saygin, I., Niklasson, M., Hickler, T., Karlsson, M., Sykes, M. T. (2010) Masting behaviour and dendrochronology of European beech (*Fagus sylvatica* L.) in southern Sweden. *Forest Ecology and Management* (259). pp. 2160-2171.

Kramer, K., Degen, B., Buschborn, 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 and Management* (259). pp. 2213-2222.

Hickler, T. (2010) Klima- und Rechenmodelle für Vergangenheit, Gegenwart und Zukunft. *Natur und Museum*, 140 (9/10). pp. 262-263.

2009

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 6 proxies that are commonly used in species distribution models. *Global Ecology & Biogeography* 18: 304-313.

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.

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.

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 and applied Ecology*, 10, 754-762.

Walther G.-R., Roques A., Hulme P.E., Sykes M.T., Pyšek P., Kühn I., Zobel M., Bacher S., Botta-Dukát Z., Bugmann H., Czúcz B., Dauber J., Hickler T., Jarošík V., Kenis M., Klotz S., Minchin D., Moora M., Nentwig W., Ott J., Panov V.E., Reineking B., Robinet C., Semenchenko V., Solarz W., Thuiller W., Vilà M., Vohland K., Settele J. (2009). Alien species in a warmer world: risks and opportunities. *Trends in Ecology & Evolution (TREE)*, 24/2, 686-693.

Rammig, A., Jönsson, A. M., Hickler, T., Smith, B., Barring, L. & Sykes, M. T. (2009) Impacts of changing frost regimes on Swedish forests: incorporating cold hardiness in a regional ecosystem model. *Ecological Modelling* 221, 303-313.

Schurgers, G., Hickler, T., Miller, P.A., Arneth, A. (2009) European emissions of isoprene and monoterpene from the Last Glacial Maximum to present. *Biogeosciences* 6: 2779- 2797.

2008

Ainsworth, E.A., Beier, C., Calfapietra, C., Cuelemans, R., Durand-Tarfid, M., Godbold, D.L., Hendrey, G.R., Hickler, T., Kaduk, J., Karnosky, D.F., Kimball, B.A., Koerner, C., Koornneef, M., Lafarge, T., Leakey, A.D.B., Lewin, K.F., Long, S.P., Mandersheid, R., McNeil, D.L., Mies, T., Miglietta, F., Morgan, J.A., Nagy, J., Norby, R.J., Norton, R.M., Percy, K.E., Rogers, A., Soussana, J.F., Stitt, M., Weigel, H.-J., White, J.W. (2008) Next generation of elevated [CO₂] experiments with crops: A critical investment for feeding the future world. *Plant, Cell and Environment* 31: 1317-1324.

Hickler, T., Smith, B., Prentice, I. C., Mjöfors, K., Arneth, A., Sykes, M.T. (2008) CO₂ fertilization in temperate FACE experiments not representative of boreal and tropical forests. *Global Change Biology* 14: 1531-1542.

Jansson, M., T. Hickler, A. Jonsson, 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.

Arneth, A., Schurgers, G., Hickler, T., Miller, P.A. (2008) Effects of species composition, land surface cover, CO₂ concentration and climate on isoprene emissions from European forests. *Plant Biology* 10, 150-162.

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 CO₂ on water availability in plant habitat models. *Biology Letters*. doi:10.1098/rsbl.2008.0105

Thomas, C. D., R. Ohlemüller, B. Anderson, T. Hickler, P. A. Miller, M. T. Sykes, Williams, J. W. (2008) Exporting the ecological impacts of climate change. *The EMBO journal*. EMBO Reports 9, S1, S28–S33.

Kühn, I., Sykes, M.T., Berry, P.M., Thuiller, W., Piper, J.M., Nigmann, U., Araújo, M.B., Balletto, E., Bonelli, S., Cabeza, M., Guisan, A., Hickler, T., Klotz, S., Metzger, M., Midgley, G., Musche, M., Olofsson, J., Paterson, J.S., Penev, L., Rickebusch, S., Rounsevell,

M.D.A.R., Schweiger, O., Wilson, E., Settele, J. (2008) MACIS: Minimisation of and Adaptation to Climate Change Impacts on Biodiversity. *GAIA - Ecological Perspectives for Science and Society* 17, 393-395.

Olofsson, J., Hickler, T. (2008) Human impact on the global carbon cycle during the last 6000 years. *Vegetation History and Archaeobotany* 17: 605-615.

Miller, P. A., Giesecke, T., Hickler, T., Bradshaw, R. H. W., Smith, B., Seppä, P. J., Valdes, Sykes, M. T. (2008) Exploring climatic and biotic controls on Holocene vegetation change in Fennoscandia. *Journal of Ecology* 96: 247-259.

2007

Giesecke, T., Hickler, T., Kunkel, M. T., Sykes, Bradshaw, R. (2007) Towards an understanding of the Holocene distribution of *Fagus sylvatica* L. *Journal of Biogeography*, 34: 118-132.

Arneth, A., Miller, P. A., Scholze, M., Hickler, T., Schurgers, B., Smith, B., Prentice, I. C. (2007) CO₂ inhibition of terrestrial isoprene emissions: Potential and implications for atmospheric chemistry. *Geophysical Research Letters* 34: L18813.

Werner, C., Butterbach-Bahl, E., Haas, T., Hickler, T., Kiese, R. (2007) A global inventory from tropical rainforest soils of N₂O emissions using a detailed biogeochemical model. *Global Biogeochemical Cycles* 21: GB3010, doi:10.1029/2006GB002909

Arneth, A., Niinemets, U., Pressley, S., Bäck, T., Hari, T., Karl, S., Noe, I. C., Prentice, D., Serca, T., Hickler, T., Wolf, Smith, B. (2007) Process-based estimates of terrestrial ecosystem isoprene emissions. *Atmospheric Chemistry and Physics* 7: 31-53.

Olesen, J.E., Carter, C.H., Diaz-Ambrona, S., Fronzek, T., Heidmann, T., Hickler, T., Holt, M.I., Minguéz-Tudela, P., Morales, J., Palutikov, M., Quemada, M., Ruiz-Ramos, G., Rubäck, F., Sau, B., Smith, 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.

Morales, P., Hickler, T., Smith, B., Sykes, M. T., Rowell, D. P. (2007) Changes in European ecosystem productivity and carbon stocks driven by Regional Climate Model outputs. *Global Change Biology*, 13: 108-122.

Thuiller, W., Albert, C., Araújo, M.B., Berry, P., Cabeza, M., Guisan, A., Hickler, T., Midgley, G., Paterson, J., Shurr, F., Sykes, M.T., Zimmermann, N. E. (2007). Predicting global change impacts on plant species' distributions: future challenges. *Perspectives in Plant Ecology, Evolution and Systematics* 9: 137-152.

2006

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.

Zaehle, S., S. Sitch, I. C. Prentice, J. Liski, W. Cramer, M. Erhard, Hickler, T., Smith, B. (2006) The importance of representing age-related decline in forest NPP for modelling regional carbon balances. *Ecological Applications* 16/4:1555-1574.

2005

Hickler, T., L. Eklundh, J. W. Seaquist, B. Smith, M. T. Sykes, J. Ardö, L. Olsson, Sjöström, M. (2005) Precipitation controls Sahel greening trend. *Geophysical Research Letters* 32:L21415, doi: 10.1029/2005GL024370.

Gerten, D., W. Lucht, S. Schaphoff, W. Cramer, Hickler, T., Wagner, W. (2005) Hydrologic resilience of the terrestrial biosphere. *Geophysical Research Letters* 32:L21408, doi: 10.1029/2005GL024247.

2004

Hickler, T., B. Smith, M. T. Sykes, M. Davis, S. Sugita, Walker, K. (2004) Using a generalized vegetation model to simulate vegetation dynamics in northeastern USA. *Ecology* 85:519-530.

2003

Bachelet, D., R. P. Neilson, T. Hickler, R. J. Drapek, J. M. Lenihan, M. T. Sykes, B. Smith, S. Sitch, Thonicke, K. (2003) Simulating past and future dynamics of natural ecosystems in the United States. *Global Biochemical Cycles* 17:1045, doi:10.1029/2001GB001508.

2001

Badeck, F. W., H. K. Lischke, H. Bugmann, T. Hickler, K. Hönninger, P. Lasch, M. J. Lexer, F. Mouillot, J. Schaber, Smith, B. (2001). Tree species composition in European pristine forests. Comparison of stand data to model predictions. *Climatic Change* 51:307-347.

Book Section

Hölzel, N., Hickler, T., Kutzbach, L., Joosten, H., Huisseden, J., Hiederer, R. (2016) Environmental Impacts—Terrestrial Ecosystems. In: *North Sea Region Climate Change Assessment*. Springer International Publishing, pp. 341-372. ISBN 978-3-319-39743-6

Vohland, K., Hickler, T., Mathaj, M., Rammig, A., Hennings, V., Badeck, F., Cramer, W. (2013) Die projizierte Veränderung der natürlichen Vegetation. In: *Schutzgebiete Deutschlands im Klimawandel - Risiken und Handlungsoptionen*. Bundesamt für Naturschutz, Bonn - Bad Godesberg, pp. 87-102.

Steinkamp, J., Hickler, T. (2013) Is drought-induced forest dieback globally increasing? *IMPACTS WORLD conference 2013*, 27.-30. May 2013, Potsdam, Germany. Available online: http://www.climate-impacts-2013.org/files/hdwb_steinkamp.pdf

Hickler, T., Bolte, A., Harthard, B., Beierkuhnlein, C., Blaschke, M., Blick, T., Brüggemann, W., Dorow, W.H.O., Fritze, M.-A., Gregor, T., Ibisch, P., Kölling, C., Kühn, I., Musche, M.,

Pompe, S., Petercord, R., Schweiger, O., Seidling, W., Trautmann, S., Waldenspuhl, T., Walentowski, H., Wellbrock, N. (2012) Folgen des Klimawandels für die Biodiversität in Wald und Forst. In: Klimawandel und Biodiversität: Folgen für Deutschland. Wissenschaftliche Buchgesellschaft, Darmstadt, Germany, pp. 164-221.

Löf, M., Brunet, J., Hickler, T., Birkedal, M., Jensen, M.A. (2012) Restoring broadleaved forests in southern Sweden as climate changes. In: A Goal-Oriented Approach to Forest Landscape Restoration. Springer, Berlin, pp. 373-391.

Spangenberg, J. H., Hickler, T., Jäger, J., Omann, I., Labadajos-Rodriguez, B., Maxim, L., Monterroso, I., Sykes, M. T., Vighi, M., Settele, J. (2010) The ALARM scenarios. In: In: Atlas of Biodiversity Risks - from Europe to the globe, from stories to maps. Pensoft, Sofia & Moscow.

Marion, G., Grabaum, R., Grescho, V., Butler, A., Biermann, S., Douget, J.-M., Hammen, V. C., Hickler, T., Hulme, P., Maxim, L., Omann, I., Peterson, K., Potts, S. G., Reginster, I., Settele, J., Spangenberg, J. H., Kühn, I. (2010) Biodiversity risk assessment for Europe – putting it all together. In: Atlas of Biodiversity Risks - from Europe to the globe, from stories to maps. Pensoft, Sofia & Moscow.

Walther, G. R., Nagy, L., Heikkinen, R.K., Penuelas, J., Ott, J., Pauli, H., Pöyry, J., Berger, S., Hickler, T. (2010) Observed climate-biodiversity relationships. In: Atlas of Biodiversity Risks - from Europe to the globe, from stories to maps. Pensoft, Sofia & Moscow.

Vohland, K., Hickler, T., Feehan, J., Gumpenberger, M., Araújo, M., Cramer, W. (2010) Priority setting for nature conservation. In: Atlas of Biodiversity Risks - from Europe to the globe, from stories to maps. Pensoft, Sofia & Moscow.

Hickler, T., Vohland, K., Costa, L., Miller, P. A., Smith, B., Feehan, J., Kühn, I., Cramer, W., Sykes, M. T. (2010) Vegetation on the move - where do conservation strategies have to be re-defined? In: Atlas of Biodiversity Risks - from Europe to the globe, from stories to maps. Pensoft, Sofia & Moscow.

Settele, J., Kudra, O., Harpe, A., Kühn, I., Swaay, C.v., Verovnik, R., Warren, M., Wiemers, M., Hansbach, J., Hickler, T., Kühn, E., Halder, I.v., Veling, K., Vliegenhart, A., Wynhoff, I., Schweiger, O., (2008) Climatic risk atlas of European Butterflies. Pensoft, Sofia & Moscow. 710 pp.

Prentice, C., A. Bondeau, W. Cramer, S. P. Harrison, T. Hickler, W. Lucht, S. Sitch, B. Smith, Sykes, M. T. (2007) Dynamic global vegetation modelling: quantifying terrestrial ecosystem responses to large-scale environmental change. In J. G. Canadell, D. Pataki, and L. F. Pitelka, editors. Terrestrial Ecosystems in a Changing World. Springer, Berlin.

Gössling, S., Hickler, T. (2006) Tourism and forest ecosystems. In Gössling, S. and Hall, M. (eds.) Tourism and Global Environmental Change. Political, Social and Economic Interrelationships. Routledge, London, p. 95-106.

House, J., V. Brovkin, R. Betts, B. Constanza, M.A.S. Dias, B. Holland, C. le Quere, N. K. Phat, U. Riebesel, M. Scholes (lead authors), A. Arneeth, D. Barrat, K. Cassman, T. Christensen, J. Foley, L. Ganzeveld, T. Hickler, S. Houweling, K. Kohfeld, M. Manizza, D. Ojima, I.C. Prentice, C. Schaaf, B. Smith, I. Tegen, K. Thonike, N. Warwick (contributing

authors) (2006) Air Quality and Climate, Chapter 13 in Millennium Assessment: Ecosystems & Human Well-Being: Volume 1. Current States and Trends, R. Hassan, R. Scholes and N. Ash (eds), Island Press, Washington.

Other articles/reports

Currently contributing author to 5th special report by the Intergovernmental Panel on Climate Change (IPCC) – Impacts Adaptation and Vulnerability, Chapter 4: Terrestrial and inland water systems; coordinating lead authors: Scholes, R., Settele, J.; lead authors: Betts, R., Bunn, S., Leadley, P., Nepstad, D., Overbeck, J., Taboada, M.A.; contributing authors: Biggs, D., Brando, P., Foden, W., Scott, G., Golding, N., Gonzales, P., Hickler, T., McGeoch, M., Parmesan, C., Rodriguez-Labajos, B., Tockner, K., Winter, M. (second revision closed 15th of August 2012).

Wittwer, T., Hickler, T., Lennartsson, T., Jakobson, A., Blank, S., Helldin, J.-O., Löf, M., Nyström, P., Ottvall, R., Öckinger, E. 2010. Klimatförändringars effekt på den biologiska mångfalden i odlingslandskapets gräsmarker. Miljöenheten, Jordbruksverket Rapport 2010:29. 95 pp.

Schurgers, G., Hickler, T., Miller, P., Arneth, A. (2009). Tree species composition and emissions of volatile organic compounds in Europe during the Holocene. iLEAPS (landatmosphere core project of the International Geosphere-Biosphere Programme (IGBP)) Newsletter 7/2009.

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.

Smith, B., Hickler, T., Miller, P. (2007) Modelling of vegetation shifts in Sweden under future climate scenarios – a contribution to the Swedish climate and vulnerability assessment. Report in Swedish (<http://www.regeringen.se/sb/d/8704/a/89334>)

Department of Physical Geography and Ecosystems Analysis, Lund University. 2006. Ecosystems, climate change and the right balance. Corresponding author: Hickler, T. In: Responding to climate change (RTCC) 2007. (http://www.rtcc.org/2007/html/res_edu_lund.html)

Månsson, L., Hickler, T., Rammig, A. (2006) Herbivore dynamics in grassland ecosystems. In: Månsson, L.: Understanding weather effects on, in, and from large herbivore dynamics. PhD thesis, Lund University, Sweden.

Schröter, D., L. Acosta-Michlik, A. W. Arnell, M. B. Arujo, F. W. Badeck, M. Bakker, A. Bondeau, H. Bugmann, T. Carter, A. C. de la Vega-Leinert, M. Erhard, G. Z. Espiñeira, F. 8 Ewert, U. Fritsch, P. Friedlingstein, M. Glendining, C. A. Gracia, T. Hickler, J. I. House, M. Hulme, R. J. T. Klein, B. Krukenberg, S. Lavorel, R. Leemans, M. Lindner, J. Liski, K. L. Metzger, J. Meyer, R. J. Mitchel, F. Mohren, P. Morales, J. M. Moreno, I. Reginster, P. Reidsma, M. Rounsevell, J. Pluimers, I. C. Prentice, A. Pussinen, A. Sánchez, S. Sabaté, S. Sitch, B. Smith, J. Smith, P. Smith, M. T. Sykes, K. Thonicke, W. Thuiller, G. Tuck, G. van der Werf, J. Yayreda, M. Wattenbach, D. W. Wilson, F. I. Woodward, S. Zaehle, B. Zierl, S. Zudin, Cramer, W. (2004) Advanced Terrestrial Ecosystem Analysis and Modelling

(ATEAM) final report 2004, section 5 and 6, and Annex 1-6. Potsdam Institute for Climate Impact Research, Potsdam, Germany.

Kittel, T. G. F., N. A. Rosenbloom, J. A. Royle, C. Daly, W. P. Gibson, H. H. Fisher, P. Thornton, D. N. Yates, S. Aulenbach, C. Kaufman, R. McKeown, D. Bachelet, D. S. Schimel, and VEMAP II Participants. (2004) VEMAP phase II bioclimatic database. I. Gridded historical (20th century) climate for modelling dynamics across the conterminous USA. *Climate Research* 27:151-170.

Hickler, T., Schmoll, T. and Walther, R. (1997) Das Naturschutzpotential eines Kerngebietes im Grossprojekt 'Orchideenregion Jena - Muschelkalkhänge im Mittleren Saaletal'. *Landschaftspflege und Naturschutz in Thüringen* 34/4: 109-116.