

Publications relevant to IIASA-Sweden collaborations (2008-2014)

The publication list contains only publications authored by IIASA-affiliated researchers and:

1. About Sweden, or
2. the IIASA author is a national of Sweden, or
3. the IIASA author has collaborated with a researcher based at an institute in Sweden.

2014

Ammunét, T., Klemola, T., Parvinen, K. Consequences of asymmetric competition between resident and invasive defoliators: A novel empirically based modelling approach (2014) *Theoretical Population Biology*, 92, pp. 107-117.

Braakhekke, M.C., Beer, C., Schrumpf, M., Ekici, A., Ahrens, B., Hoosbeek, M.R., Kruijt, B., Kabat, P., Reichstein, M. The use of radiocarbon to constrain current and future soil organic matter turnover and transport in a temperate forest (2014) *Journal of Geophysical Research: Biogeosciences*, 119 (3), pp. 372-391.

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. Constraints and potentials of future irrigation water availability on agricultural production under climate change (2014) *Proceedings of the National Academy of Sciences of the United States of America*, 111 (9), pp. 3239-3244.

Franklin O, Nasholm T, Hogberg P & Hogberg MN (2014). Forests trapped in nitrogen limitation - An ecological market perspective on ectomycorrhizal symbiosis. *New Phytologist*, 203(2):657-666 (July 2014) (Published online 14 May 2014).

Jewell, J., Cherp, A., Riahi, K. Energy security under de-carbonization scenarios: An assessment framework and evaluation under different technology and policy choices (2014) *Energy Policy*, 65, pp. 743-760.

Jonas M, Ometto JP, Batistella M, Franklin O, Hall M, Lapola DM, Moran EF, Tramberend S, Queiroz BL, Schaffartzik A, Shvidenko A, Nilsson S & Nobre CA (2014). Sustaining ecosystem services: Overcoming the dilemma posed by local actions and planetary boundaries. *Earth's Future*, Article in press(Published online 2 July 2014).

Jurisoo, M., Pachauri, S., Johnson, O., Lambe, F., 2014: Can low-carbon options change conditions for expanding energy access in Africa? SEI (Stockholm Environment Institute) Discussion Brief

Kaiser C, Franklin O, Dieckmann U & Richter A (2014). Microbial community dynamics alleviate stoichiometric constraints during litter decay. *Ecology Letters*, 17(6):680-690 (June 2014) (Published online 17 March 2014).

Lauri P, Havlik P, Kindermann G, Forsell N, Bottcher H & Obersteiner M (2014). Woody biomass energy potential in 2050. *Energy Policy*, 66:19-31 (March 2014)(Published online 12 December 2013).

Laugen, A.T., Engelhard, G.H., Whitlock, R., Arlinghaus, R., Dankel, D.J., Dunlop, E.S., Eikeset, A.M., Enberg, K., Jørgensen, C., Matsumura, S., Nusslé, S., Urbach, D., Baulier, L., Boukal, D.S., Ernande, B., Johnston, F.D., Mollet, F., Pardoe, H., Therkildsen, N.O., Uusi-Heikkilä, S., Vainikka, A., Heino, M., Rijnsdorp, A.D., Dieckmann, U. Evolutionary impact assessment: Accounting for evolutionary consequences of fishing in an ecosystem approach to fisheries management (2014) *Fish and Fisheries*, 15 (1), pp. 65-96.

Leung, G.C.K., Cherp, A., Jewell, J., Wei, Y.-M. Securitization of energy supply chains in China (2014) *Applied Energy*, 123, pp. 316-326.

Lilliestam J (2014). Vulnerability to terrorist attacks in European electricity decarbonisation scenarios: Comparing renewable electricity imports to gas imports. *Energy Policy*, 66:234-248 (March 2014)(Published online 2 December 2013).

Lindh M, Zhang L, Falster D, Franklin O & Brannstrom A (2014). Plant diversity and drought: The role of deep roots. *Ecological Modeling*, Article in press(Published online 27 June 2014).

Mainali, B., Pachauri, S., Rao, N.D., Silveira, S. Assessing rural energy sustainability in developing countries (2014) *Energy for Sustainable Development*, 19 (1), pp. 15-28.

Natarajan, K., Leduc, S., Pelkonen, P., Tomppo, E., Dotzauer, E. Optimal locations for second generation Fischer Tropsch biodiesel production in Finland (2014) *Renewable Energy*, 62, pp. 319-330.

Nonaka E, Brannstrom A & Svanback R (2014). Assortative mating can limit the evolution of phenotypic plasticity. *Evolutionary Ecology*, Article in press(Published online 22 July 2014).

Pfenninger S, Gauche P, Lilliestam J, Damerau K, Wagner F & Patt A (2014). Potential for concentrating solar power to provide baseload and dispatchable power. *Nature Climate Change*, 4:689-692 (August 2014)(Published online 22 June 2014).

Sjoedin H, Brannstrom A, Soederquist M & Englund G (2014). Population-level consequences of heterospecific density-dependent movements in predator-prey systems. *Journal of Theoretical Biology*, 342:93-106 (7 February 2014)(Published online 21 September 2013).

Turner, M., Beer, C., Santoro, M., Carvalhais, N., Wutzler, T., Schepaschenko, D., Shvidenko, A., Kompter, E., Ahrens, B., Levick, S.R., Schmillius, C. Carbon stock and density of northern boreal and temperate forests (2014) *Global Ecology and Biogeography*, 23 (3), pp. 297-310.

Weber, D., Skirbekk, V., Freund, I., Herlitz, A. The changing face of cognitive gender differences in Europe (2014) *Proceedings of the National Academy of Sciences of the United States of America*, 111 (32), pp. 11673-11678.

Welsch, M., Hermann, S., Howells, M., Rogner, H.H., Young, C., Ramma, I., Bazilian, M., Fischer, G., Alfstad, T., Gielen, D., Le Blanc, D., Röhr, A., Steduto, P., Müller, A. Adding value with CLEWS - Modelling the energy system and its interdependencies for Mauritius (2014) *Applied Energy*, 113, pp. 1434-1445.

Yttri, K.E., Lund Myhre, C., Eckhardt, S., Fiebig, M., Dye, C., Hirdman, D., Ström, J., Klimont, Z., Stohl, A. Quantifying black carbon from biomass burning by means of levoglucosan - A one-year time series at the Arctic observatory Zeppelin (2014) *Atmospheric Chemistry and Physics*, 14 (12), pp. 6427-6442.

2013

Abbott, R., Albach, D., Ansell, S., Arntzen, J.W., Baird, S.J.E., Bierne, N., Boughman, J., Brelsford, A., Buerkle, C.A., Buggs, R., Butlin, R.K., Dieckmann, U., Eroukhmanoff, F., Grill, A., Cahan, S.H., Hermansen, J.S., Hewitt, G., Hudson, A.G., Jiggins, C., Jones, J., Keller, B., Marczewski, T., Mallet, J., Martinez-Rodriguez, P., Möst, M., Mullen, S., Nichols, R., Nolte, A.W., Parisod, C., Pfennig, K., Rice, A.M., Ritchie, M.G., Seifert, B., Smadja, C.M., Stelkens, R., Szymura, J.M., Väinölä, R., Wolf, J.B.W., Zinner, D. Hybridization and speciation (2013) *Journal of Evolutionary Biology*, 26 (2), pp. 229-246.

Acosta, L., Klein, R.J.T., Reidsma, P., Metzger, M.J., Rounsevell, M.D.A., Leemans, R., Schröter, D. A spatially explicit scenario-driven model of adaptive capacity to global change in Europe (2013) *Global Environmental Change*, 23 (5), pp. 1211-1224.

Brannstrom A, Carlsson L & Simpson D (2013). On the convergence of the Escalator Boxcar Train. *SIAM Journal on Numerical Analysis*, 51(6):3213-3231.

Brannstrom A, Johansson J & von Festenberg N (2013). The hitchhiker's guide to adaptive dynamics. *Games*, 4(3):304-328 (September 2013) (Published online 24 June 2013).

Capros P, De Vita A, Hoeglund-Isaksson L, Winiwarter W, Purohit P, Bottcher H, Frank S, Havlik P, Gusti M, Witzke HP, et al. (2013). EU Energy, Transport and GHG Emissions Trends to 2050 - Reference Scenario 2013. European Commission, Publications Office of the European Union, Luxembourg (16 December 2013).

Cherp, A., Jewell, J., Vinichenko, V., Bauer, N., De Cian, E. Global energy security under different climate policies, GDP growth rates and fossil resource availabilities (2013) *Climatic Change*, pp. 1-12. Article in Press.

de Roos, A.M., Metz, J.A.J., Persson, L. Ontogenetic symmetry and asymmetry in energetics (2013) *Journal of Mathematical Biology*, 66 (4-5), pp. 889-914.

Hall M, Medlyn BE, Abramowitz G, Franklin O, Rantfors M, Linder S & Wallin G (2013). Which are the most important parameters for modelling carbon assimilation in boreal Norway spruce under elevated [CO₂] and temperature conditions? *Tree Physiology*, 33(11):1156-1176 (November 2013) (Published online 21 March 2013).

Heino, M., Baulier, L., Boukal, D.S., Ernande, B., Johnston, F.D., Mollet, F.M., Pardoe, H., Therkildsen, N.O., Uusi-Heikkilä, S., Vainikka, A., Arlinghaus, R., Dankel, D.J., Dunlop, E.S., Eikeset, A.M., Enberg, K., Engelhard, G.H., Jørgensen, C., Laugen, A.T., Matsumura, S., Nusslé, S., Urbach, D., Whitlock, R., Rijnsdorp, A.D., Dieckmann, U. Can fisheries-induced evolution shift reference points for fisheries management? (2013) *ICES Journal of Marine Science*, 70 (4), pp. 707-721.

Howells, M., Hermann, S., Welsch, M., Bazilian, M., Segerström, R., Alfstad, T., Gielen, D., Rogner, H., Fischer, G., Van Velthuisen, H., Wiberg, D., Young, C., Alexander Roehrl, R., Mueller, A., Steduto, P., Ramma, I. Integrated analysis of climate change, land-use, energy and water strategies (2013) *Nature Climate Change*, 3 (7), pp. 621-626.

Hussein, T., Löndahl, J., Paasonen, P., Koivisto, A.J., Petäjä, T., Hämeri, K., Kulmala, M. Modeling regional deposited dose of submicron aerosol particles (2013) *Science of the Total Environment*, 458-460, pp. 140-149.

Kraxner F, Nordstrom E-M, Havlik P, Gusti M, Mosnier A, Frank S, Valin H, Fritz S, Fuss S, Kindermann G, McCallum I, Khabarov N, Bottcher H, See L, Aoki K, Schmid E, Mathe L & Obersteiner M (2013). Global bioenergy scenarios - Future forest development, land-use implications, and trade-offs. *Biomass and Bioenergy*, 57:86-96 (October 2013)(Published online 2 May 2013).

Leimar, O., Sasaki, A., Doebeli, M., Dieckmann, U. Limiting similarity, species packing, and the shape of competition kernels (2013) *Journal of Theoretical Biology*, 339, pp. 3-13.

Liu, J., Folberth, C., Yang, H., Röckström, J., Abbaspour, K., Zehnder, A.J.B. A Global and Spatially Explicit Assessment of Climate Change Impacts on Crop Production and Consumptive Water Use (2013) *PLoS ONE*, 8 (2), art. no. e57750, .

McCallum I, Franklin O, Moltchanova E, Merbold L, Schmulius C, Shvidenko A, Schepaschenko D & Fritz S (2013). Improved light and temperature responses for light-use-efficiency-based GPP models. *Biogeosciences*, 10(10):6577-6590 (17 October 2013).

Meng X, Lundstroem NLP, Bodin M & Brannstrom A (2013). Dynamics and management of stage-structured fish stocks. *Bulletin of Mathematical Biology*, 75(1):1-23 (January 2013) (Published online 5 January 2013).

Mollet, F.M., Engelhard, G.H., Vainikka, A., Laugen, A.T., Rijnsdorp, A.D., Ernande, B. Spatial variation in growth, maturation schedules and reproductive investment of female sole *Solea solea* in the Northeast Atlantic (2013) *Journal of Sea Research*, 84, pp. 109-121.

Nasholm T, Hogberg P, Franklin O, Metcalfe D, Keel SG, Campbell C, Hurry V, Linder S & Hogberg MN (2013). Are ectomycorrhizal fungi alleviating or aggravating nitrogen limitation of tree growth in boreal forests? *New Phytologist*, 198(1):214-221 (April 2013) (Published online 29 January 2013).

Nguyen B, Hoeglund-Isaksson L, Wagner F & Schoepp W (2013). Mitigation Efforts Calculator (MEC). *Information Systems Frontiers*, 15(2):223-233 (1 April 2013) (Published online 6 July 2012).

Nonaka E, Parvinen K & Brannstrom A (2013). Evolutionary suicide as a consequence of runaway selection for greater aggregation tendency. *Journal of Theoretical Biology*, 317:96-104(21 January 2013).

Ohlberger J, Brannstrom A & Dieckmann U (2013). Adaptive phenotypic diversification along a temperature-depth gradient. *The American Naturalist*, 182(3):359-373 (September 2013).

Paasonen, P., Asmi, A., Petäjä, T., Kajos, M.K., Äijälä, M., Junninen, H., Holst, T., Abbatt, J.P.D., Arneth, A., Birmili, W., Van Der Gon, H.D., Hamed, A., Hoffer, A., Laakso, L., Laaksonen, A., Richard Leaitch, W., Plass-Dülmer, C., Pryor, S.C., Räisänen, P., Swietlicki, E., Wiedensohler, A., Worsnop, D.R., Kerminen, V.-M., Kulmala, M. Warming-induced increase in aerosol number concentration likely to moderate climate change (2013) *Nature Geoscience*, 6 (6), pp. 438-442.

Patt A, Pfenninger S & Lilliestam J (2013). Vulnerability of solar energy infrastructure and output to climate change. *Climatic Change*, 121(1):93-102 (November 2013) (Published online September 2013).

Reichstein, M., Bahn, M., Ciais, P., Frank, D., Mahecha, M.D., Seneviratne, S.I., Zscheischler, J., Beer, C., Buchmann, N., Frank, D.C., Papale, D., Rammig, A., Smith, P., Thonicke, K., Van Der Velde, M., Vicca, S., Walz, A., Wattenbach, M. Climate extremes and the carbon cycle (2013) *Nature*, 500 (7462), pp. 287-295.

Santoro M, Cartus O, Fransson JES, Shvidenko A, McCallum I, Hall RJ, Beaudoin A, Beer C & Schmullius C (2013). Estimates of forest growing stock volume for Sweden, Central Siberia, and Quebec using Envisat Advanced Synthetic Aperture Radar backscatter data. *Remote Sensing*, 5(9):4503-4532

Takahashi D, Brannstrom A, Mazzucco R, Yamauchi A & Dieckmann U (2013). Abrupt community transitions and cyclic evolutionary dynamics in complex food webs. *Journal of Theoretical Biology*, 337(21):181-189 (21 November 2013) (Published online 12 August 2013).

van Dingenen R, Dentener F, Janssens-Maenhout G, Muntean M, Klimont Z & Hoeglund-Isaksson L (2013). Smart Air Quality Policies for a Better Climate: A Regional Analysis. Abstract, Goldschmidt 2013, 25-30 August 2013, Florence, Italy.

van Leeuwen E, Brannstrom A, Jansen VAA, Dieckmann U & Rossberg AG (2013). A generalized functional response for predators that switch between multiple prey species. *Journal of Theoretical Biology*, 328:89-98 (7 July 2013)(Published online 17 February 2013).

Wetterlund E, Leduc S, Dotzauer E & Kindermann G (2013). Optimal use of forest residues in Europe under different policies-second generation biofuels versus combined heat and power. *Biomass Conversion and Biorefinery*, 3(1):3-16 (March 2013) (Published online 12 July 2012).

2012

Amann M, Bertok I, Borken-Kleefeld J, Cofala J, Heyes C, Hoeglund-Isaksson L, Klimont Z, Rafaj P, Schoepp W & Wagner F (2012). Environmental improvements of the 2012 revision

of the Gothenburg Protocol. CIAM Report 1/2012, Version 1.1, CIAM & IIASA (September 2012).

Bazilian, M., Rice, A., Rotich, J., Howells, M., DeCarolis, J., Macmillan, S., Brooks, C., Bauer, F., Liebreich, M. Open source software and crowdsourcing for energy analysis (2012) *Energy Policy*, 49, pp. 149-153.

Bodin M, Brannstrom A & Dieckmann U (2012). A systematic overview of harvesting-induced maturation evolution in predator-prey systems with three different life-history tradeoffs. *Bulletin of Mathematical Biology*, 74(12):2842-2860 (December 2012).

Bodin P & Franklin O (2012). Efficient modeling of sun/shade canopy radiation dynamics explicitly accounting for scattering. *Geoscientific Model Development*, 5(2):535-541 (26 April 2012).

Brannstrom A, Johansson J, Loeuille N, Kristensen N, Troost TA, Lambers RHR & Dieckmann U (2012). Modelling the ecology and evolution of communities: A review of past achievements, current efforts, and future promises. *Evolutionary Ecology Research*, 14(5):601-625.

Cao G-Y, Chen G, Pang L-H, Zheng X-Y & Nilsson S (2012). Urban growth in China: Past, prospect, and its impacts. *Population and Environment*, 33(2-3):137-160 (March 2012) (Published online 12 June 2011).

Cornforth DM, Sumpter DJT, Brown SP & Brannstrom A (2012). Synergy and group size in microbial cooperation. *The American Naturalist*, 180(3):296-305 (September 2012).

Fath BD, Rovenskaya E, Veshchinskaya V, Dieckmann U & Brannstrom A (2012). Ecological flow analysis of network collapse I: New methodology to investigate network collapse dynamics. In: Seppelt R, Voinov AA, Lange S & Bankamp D (eds), *iEMSs 2012: Managing Resources of a Limited Planet*. 1-5 July 2012, Leipzig, Germany pp.271-278.

Franklin O, Johansson J, Dewar RC, Dieckmann U, McMurtrie RE, Brannstrom A & Dybzinski R (2012). Modeling carbon allocation in trees: A search for principles. *Tree Physiology*, 32(6):648-666 (June 2012) (Published online 25 January 2012).

Franklin O, Moltchanova E, Kraxner F, Seidl R, Bottcher H, Rokityansky D & Obersteiner M (2012). Large-scale forest modeling: Deducing stand density from inventory data. *International Journal of Forestry Research*, 2012:934974.

Garcia SM, Kolding J, Rice J, Rochet M-J, Zhou S, Arimoto T, Beyer JE, Borges L, Bundy A, Dunn D, Fulton EA, Hall MA, Heino M, Law R, Makino M, Rijnsdorp AD, Simard F & Smith ADM (2012). Reconsidering the consequences of selective fisheries. *Science*, 335(6072):1045-1047 (2 March 2012).

Grubler A, Johansson TB, Muncada L, Nakicenovic N, Pachauri S, Riahi K, Rogner H-H & Strupeit L (2012). Chapter 1: Energy primer. In: Team GEA Writing (ed.), *Global Energy Assessment: Toward a Sustainable Future*. Cambridge University Press and IIASA, pp.99-150 (October 2012).

Hoeglund-Isaksson L (2012). Global anthropogenic methane emissions 2005-2030: Technical mitigation potentials and costs. *Atmospheric Chemistry and Physics*, 12(19):9079-9096 (04 October 2012).

Hoeglund-Isaksson L, Winiwarter W, Purohit P, Rafaj P, Schoepp W & Klimont Z (2012). EU low carbon roadmap 2050: Potentials and costs for mitigation of non-CO2 greenhouse gas emissions. *Energy Strategy Reviews*, 1(2):97-108 (September 2012) (Published online 22 June 2012).

Kotrschal, A., Heckel, G., Bonfils, D., Taborsky, B. Life-stage specific environments in a cichlid fish: Implications for inducible maternal effects (2012) *Evolutionary Ecology*, 26 (1), pp. 123-137.

Kraxner F, Nordstrom E-M, Obersteiner M, Havlik P, Gusti M, Kindermann G, Fuss S, Khabarov N, et al. (2012). Global Feedstock Scenarios for Bioenergy - Land-Use Change and Trade-Offs. Paper submitted to IEW 2012, the 31st edition of the International Energy Workshop, 19-21 June 2012, University of Cape Town, South Africa.

Leduc S, Wetterlund E, Dotzauer E & Kindermann G (2012). CHP or biofuel production in Europe? *Energy Procedia*, 20:40-49.

Lilliestam J, Battaglini A, Finlay C, Fuerstenwerth D, Patt A, Schellekens G & Schmidt P (2012). An alternative to a global climate deal may be unfolding before our eyes. *Climate and Development*, 4(1):1-4 (January 2012).

Lilliestam J, Bielicki JM & Patt A (2012). Comparing carbon capture and storage (CCS) with concentrating solar power (CSP): Potentials, costs, risks, and barriers. *Energy Policy*, 47:447-456 (August 2012)(Published online 28 May 2012).

Lilliestam J & Ellenbeck E (2012). Fostering interdependence to minimise political risks in a European-North African renewable electricity supergrid. *Green*, 2(2-3):105-109 (June 2012) (Published online 5 June 2012).

Lilliestam J & Patt A (2012). Final Report: Energy Security in Scenarios for Europe's Future Electricity Supply. SEFEB Working Paper, Smart Energy for Europe Platform (December 2012).

Lim, S.S., Vos, T., Flaxman, A.D., Danaei, G., Shibuya, K., Adair-Rohani, H., Amann, M., Anderson, H.R., Andrews, K.G., Aryee, M., Atkinson, C., Bacchus, L.J., Bahalim, A.N., Balakrishnan, K., Balmes, J., Barker-Collo, S., Baxter, A., Bell, M.L., Blore, J.D., Blyth, F., Bonner, C., Borges, G., Bourne, R., Boussinesq, M., Brauer, M., Brooks, P., Bruce, N.G., Brunekreef, B., Bryan-Hancock, C., Bucello, C., Buchbinder, R., Bull, F., Burnett, R.T., Byers, T.E., Calabria, B., Carapetis, J., Carnahan, E., Chafe, Z., Charlson, F., Chen, H., Chen, J.S., Cheng, A.T.-A., Child, J.C., Cohen, A., Colson, K.E., Cowie, B.C., Darby, S., Darling, S., Davis, A., Degenhardt, L., Dentener, F., Des Jarlais, D.C., Devries, K., Dherani, M., Ding, E.L., Dorsey, E.R., Driscoll, T., Edmond, K., Ali, S.E., Engell, R.E., Erwin, P.J., Fahimi, S., Falder, G., Farzadfar, F., Ferrari, A., Finucane, M.M., Flaxman, S., Fowkes, F.G.R., Freedman, G., Freeman, M.K., Gakidou, E., Ghosh, S., Giovannucci, E., Gmel, G., Graham, K., Grainger, R., Grant, B., Gunnell, D., Gutierrez, H.R., Hall, W., Hoek, H.W., Hogan, A., Hosgood III, H.D., Hoy, D., Hu, H., Hubbell, B.J., Hutchings, S.J., Ibeanusi, S.E., Jacklyn, G.L., Jasrasaria, R., Jonas, J.B., Kan, H., Kanis, J.A., Kassebaum, N., Kawakami, N., Khang,

Y.-H., Khatibzadeh, S., Khoo, J.-P., Kok, C., Laden, F., Laloo, R., Lan, Q., Lathlean, T., Leasher, J.L., Leigh, J., Li, Y., Lin, J.K., Lipshultz, S.E., London, S., Lozano, R., Lu, Y., Mak, J., Malekzadeh, R., Mallinger, L., Marcenés, W., March, L., Marks, R., Martin, R., McGale, P., McGrath, J., Mehta, S., Mensah, G.A., Merriman, T.R., Micha, R., Michaud, C., Mishra, V., Hanafiah, K.M., Mokdad, A.A., Morawska, L., Mozaffarian, D., Murphy, T., Naghavi, M., Neal, B., Nelson, P.K., Nolla, J.M., Norman, R., Olives, C., Omer, S.B., Orchard, J., Osborne, R., Ostro, B., Page, A., Pandey, K.D., Parry, C.D.H., Passmore, E., Patra, J., Pearce, N., Pelizzari, P.M., Petzold, M., Phillips, M.R., Pope, D., Pope III, C.A., Powles, J., Rao, M., Razavi, H., Rehfuss, E.A., Rehm, J.T., Ritz, B., Rivara, F.P., Roberts, T., Robinson, C., Rodriguez-Portales, J.A., Romieu, I., Room, R., Rosenfeld, L.C., Roy, A., Rushton, L., Salomon, J.A., Sampson, U., Sanchez-Riera, L., Sanman, E., Sapkota, A., Seedat, S., Shi, P., Shield, K., Shivakoti, R., Singh, G.M., Sleet, D.A., Smith, E., Smith, K.R., Stapelberg, N.J.C., Steenland, K., Stöckl, H., Stovner, L.J., Straif, K., Straney, L., Thurston, G.D., Tran, J.H., Van Dingenen, R., Van Donkelaar, A., Veerman, J.L., Vijayakumar, L., Weintraub, R., Weissman, M.M., White, R.A., Whiteford, H., Wiersma, S.T., Wilkinson, J.D., Williams, H.C., Williams, W., Wilson, N., Woolf, A.D., Yip, P., Zielinski, J.M., Lopez, A.D., Murray, C.J.L., Ezzati, M. A comparative risk assessment of burden of disease and injury attributable to 67 risk factors and risk factor clusters in 21 regions, 1990-2010: A systematic analysis for the Global Burden of Disease Study 2010 (2012) *The Lancet*, 380 (9859), pp. 2224-2260.

Mainali, B., Pachauri, S., Nagai, Y. Analyzing cooking fuel and stove choices in China till 2030 (2012) *Journal of Renewable and Sustainable Energy*, 4 (3), art. no. 031805, .

Natarajan, K., Leduc, S., Pelkonen, P., Tomppo, E., Dotzauer, E. Optimal Locations for Methanol and CHP Production in Eastern Finland (2012) *Bioenergy Research*, 5 (2), pp. 412-423.

Nilsson, M., Heaps, C., Persson, A., Carson, M., Pachauri, S., Kok, M., Olsson, M., Rehman, I., Schaeffer, R., Wood, D., van Vuuren, D., Riahi, K., Americano, B., Mulugetta, Y., (2012). *Energy for a Shared Development Agenda: Global Scenarios and Governance Implications*. Research Report, Stockholm Environment Institute (SEI), Stockholm, Sweden

Ringdahl O, Hellstroem T & Lindroos O (2012). Potentials of possible machine systems for directly loading logs in cut-to-length harvesting. *Canadian Journal of Forest Research*, 42(5):970-985 (May 2012) (Published online 25 April 2012).

Rovenskaya E, Brannstrom A, Franklin O & Dieckmann U (2012). Balancing Ecology and Economy in Forestry: A Theoretical Investigation. Poster presentation, IIASA 40th Anniversary Conference, 24-26 October 2012, Laxenburg and Vienna, Austria.

Rovenskaya E, Veshchinskaya V, Fath BD, Dieckmann U & Brannstrom A (2012). Ecological flow analysis of network collapse II: Indicators of ecosystem level vulnerability. In: Seppelt R, Voinov AA, Lange S & Bankamp D (eds), *iEMSs 2012: Managing Resources of a Limited Planet*. 1-5 July 2012, Leipzig, Germany pp.279-284.

Sasaki T, Brannstrom A, Dieckmann U & Sigmund K (2012). The take-it-or-leave-it option allows small penalties to overcome social dilemmas. *PNAS*, 109(4):1165-1169 (24 January 2012) (Published online 9 January 2012).

Shindell D, Kuylenstierna JCI, Vignati E, van Dingenen R, Amann M, Klimont Z, Kupiainen K, Hoeglund-Isaksson L, et al. (2012). Simultaneously mitigating near-term climate change and improving human health and food security. *Science*, 335(6065):183-189 (13 January 2012).

Shvidenko A, Nilsson S, Schepaschenko D & McCallum I (2012). IIASA FOR environmental holdings for Northern Eurasia. In: Groisman P, Reissell A & Kaukolehto M (eds), *Proceedings of the NEESPI Regional Science Team Meeting Devoted to the High Latitudes*. 2-6 June 2008, University of Helsinki, Finland pp.137-140 (June 2012).

Shvidenko A, Schepaschenko D, Nilsson S & McCallum I (2012). Boreal forests in high latitudes of the NEESPI region. In: Groisman P, Reissell A & Kaukolehto M (eds), *Proceedings of the NEESPI Regional Science Team Meeting Devoted to the High Latitudes*. 2-6 June 2008, University of Helsinki, Finland pp.55-59 (June 2012).

Veshchinskaya V, Brannstrom A, Rovenskaya E & Dieckmann U (2012). Ecosystem Vulnerability to Species Loss. Poster presentation, IIASA 40th Anniversary Conference, 24-26 October 2012, Laxenburg and Vienna, Austria.

Wagner F, Amann M, Borken-Kleefeld J, Cofala J, Hoeglund-Isaksson L, Purohit P, Rafaj P, Schoepp W & Winiwarter W (2012). Sectoral marginal abatement cost curves: Implications for mitigation pledges and air pollution co-benefits for Annex I countries. *Sustainability Science*, 7(2):169-184 (Published online 29 April 2012).

Wetterlund E, Leduc S, Dotzauer E & Kindermann G (2012). Optimal localisation of biofuel production on a European scale. *Energy*, 41(1):462-472 (May 2012) (Published online 23 March 2012).

2011

Amann M, Bertok I, Borken-Kleefeld J, Cofala J, Heyes C, Hoeglund-Isaksson L, Klimont Z, Nguyen B, Posch M, Rafaj P, Sandler R, Schoepp W, Wagner F & Winiwarter W (2011). Cost-effective control of air quality and greenhouse gases in Europe: Modeling and policy applications. *Environmental Modelling & Software*, 26(12):1489-1501 (December 2011) (Published online 15 September 2011).

Amann M, Bertok I, Borken-Kleefeld J, Cofala J, Heyes C, Hoeglund-Isaksson L, Klimont Z, Rafaj P, Schoepp W & Wagner F (2011). Cost-effective emission reductions to improve air quality in Europe in 2020: Analysis of policy options for the EU for the revision of the Gothenburg Protocol. Final Report submitted to the European Commission, DG Environment (July 2011).

Amann M, Bertok I, Borken-Kleefeld J, Cofala J, Heyes C, Hoeglund-Isaksson L, Klimont Z, Rafaj P, Schoepp W & Wagner F (2011). Cost-effective Emission Reductions to Improve Air Quality in Europe in 2020: Background paper. CIAM-Report, Version 2.1. CIAM, IIASA, Laxenburg, Austria (31 March 2011).

Amann M, Bertok I, Borken-Kleefeld J, Cofala J, Heyes C, Hoeglund-Isaksson L, Klimont Z, Rafaj P, Schoepp W & Wagner F (2011). An Updated Set of Scenarios of Cost-effective Emission Reductions for the Revision of the Gothenburg Protocol. CIAM 4/2011, Version 1.0. CIAM, IIASA, Laxenburg, Austria (26 August 2011).

- Battaglini A & Lilliestam J (2011). On Transmission Grid Governance. Issue Paper ERENE, Heinrich Boell Foundation, Berlin, Germany (8 February 2011).
- Battaglini A & Lilliestam J (2011). Zur Governance des Uebertragungsnetzes. Schriften zur Oekologie, Band 16, Heinrich-Boell-Stiftung, Berlin, Germany (29 July 2011).
- Bodin P & Franklin O (2011). Efficient modeling of sun/shade canopy radiation dynamics explicitly accounting for scattering. *Geoscientific Model Development Discussions*, 4(3):1793-1808 (4 August 2011).
- Brannstrom A, Carlsson L & Rossberg AG (2011). Rigorous conditions for food-web intervality in high-dimensional trophic niche spaces. *Journal of Mathematical Biology*, 63(3):575-592 (September 2011) (Published online 16 November 2010).
- Brannstrom A, Gross T, Blasius B & Dieckmann U (2011). Consequences of fluctuating group size for the evolution of cooperation. *Journal of Mathematical Biology*, 63(2):263-281 (August 2011) (Published online 19 October 2010).
- Brannstrom A, Loeuille N, Loreau M & Dieckmann U (2011). Emergence and maintenance of biodiversity in an evolutionary food-web model. *Theoretical Ecology*, 4(4):467-478 (November 2011) (Published online 26 August 2010).
- Cao G-Y, Zheng X, Horabik J, Nilsson S, Xu J, Wang H & Wang H (2011). Scenario analysis for the trends of paper consumption in China: Urbanization effect in the medium term. *Population & Development*, 17(2):1-13.
- Falster DS, Brannstrom A, Dieckmann U & Westoby M (2011). Influence of four major plant traits on average height, leaf-area cover, net primary productivity, and biomass density in single-species forests: A theoretical investigation. *Journal of Ecology*, 99(1):148-164 (January 2011) (Published online 12 October 2010).
- Franklin O, Hall EK, Kaiser C, Battin TJ & Richter A (2011). Optimization of biomass composition explains microbial growth-stoichiometry relationships. *The American Naturalist*, 177(2):E29-E42 (Published online 12 January 2011).
- Hall EK, Maixner F, Franklin O, Daims H, Richter A & Battin TJ (2011). Linking microbial and ecosystem ecology using ecological stoichiometry: A synthesis of conceptual and empirical approaches. *Ecosystems*, 14(2):261-273 (March 2011) (Published online 23 December 2010).
- Jonas M, Gusti M, Jeda W, Nahorski Z & Nilsson S (2011). Comparison of preparatory signal analysis techniques for consideration in the (post-)Kyoto policy process. In: White T, Jonas M, Nahorski Z & Nilsson S (eds), *Greenhouse Gas Inventories: Dealing With Uncertainty*. Springer, Dordrecht, Netherlands pp.175-213.
- Jonas M, Marland G, Winiwarter W, White T, Nahorski Z, Bun R & Nilsson S (2011). Benefits of dealing with uncertainty in greenhouse gas inventories: Introduction. In: White T, Jonas M, Nahorski Z & Nilsson S (eds), *Greenhouse Gas Inventories: Dealing With Uncertainty*. Springer, Dordrecht, Netherlands pp.3-18.

Jonas M, Marland G, Winiwarter W, White T, Nahorski Z, Bun R & Nilsson S (2011). Lessons to be learned from uncertainty treatment: Conclusions regarding greenhouse gas inventories. In: White T, Jonas M, Nahorski Z & Nilsson S (eds), *Greenhouse Gas Inventories: Dealing With Uncertainty*. Springer, Dordrecht, Netherlands pp.339-343.

Kotrschal, A., Fischer, B., Taborsky, B. A noninvasive method to determine fat content in small fish based on swim bladder size estimation (2011) *Journal of Experimental Zoology Part A: Ecological Genetics and Physiology*, 315 A (7), pp. 408-415.

Kulmala, M., Asmi, A., Lappalainen, H.K., Baltensperger, U., Brenguier, J.-L., Facchini, M.C., Hansson, H.-C., Hov, Ø., O'Dowd, C.D., Pöschl, U., Wiedensohler, A., Boers, R., Boucher, O., De Leeuw, G., Denier Van Der Gon, H.A.C., Feichter, J., Krejci, R., Laj, P., Lihavainen, H., Lohmann, U., McFiggans, G., Mentel, T., Pilinis, C., Riipinen, I., Schulz, M., Stohl, A., Swietlicki, E., Vignati, E., Alves, C., Amann, M., Ammann, M., Arabas, S., Artaxo, P., Baars, H., Beddows, D.C.S., Bergström, R., Beukes, J.P., Bilde, M., Burkhardt, J.F., Canonaco, F., Clegg, S.L., Coe, H., Crumeyrolle, S., D'Anna, B., Decesari, S., Gilardoni, S., Fischer, M., Fjaeraa, A.M., Fountoukis, C., George, C., Gomes, L., Halloran, P., Hamburger, T., Harrison, R.M., Herrmann, H., Hoffmann, T., Hoose, C., Hu, M., Hyvärinen, A., Hörrak, U., Iinuma, Y., Iversen, T., Josipovic, M., Kanakidou, M., Kiendler-Scharr, A., Kirkevåg, A., Kiss, G., Klimont, Z., Kolmonen, P., Komppula, M., Kristjánsson, J.-E., Laakso, L., Laaksonen, A., Labonnote, L., Lanz, V.A., Lehtinen, K.E.J., Rizzo, L.V., Makkonen, R., Manninen, H.E., McMeeking, G., Merikanto, J., Minikin, A., Mirme, S., Morgan, W.T., Nemitz, E., O'Donnell, D., Panwar, T.S., Pawlowska, H., Petzold, A., Pienaar, J.J., Pio, C., Plass-Duelmer, C., Prévôt, A.S.H., Pryor, S., Reddington, C.L., Roberts, G., Rosenfeld, D., Schwarz, J., Seland, O., Sellegri, K., Shen, X.J., Shiraiwa, M., Siebert, H., Sierau, B., Simpson, D., Sun, J.Y., Topping, D., Tunved, P., Vaattovaara, P., Vakkari, V., Veefkind, J.P., Visschedijk, A., Vuollekoski, H., Vuolo, R., Wehner, B., Wildt, J., Woodward, S., Worsnop, D.R., Van Zadelhoff, G.-J., Zardini, A.A., Zhang, K., Van Zyl, P.G., Kerminen, V.-M., Carslaw, K.S., Pandis, S.N. General overview: European Integrated project on Aerosol Cloud Climate and Air Quality interactions (EUCAARI)-integrating aerosol research from nano to global scales (2011) *Atmospheric Chemistry and Physics*, 11 (24), pp. 13061-130143.

Lilliestam J & Ellenbeck S (2011). Energy security and renewable electricity trade - Will Desertec make Europe vulnerable to the "energy weapon"? *Energy Policy*, 39(6):3380-3391 (June 2011) (Published online 7 April 2011).

Lindroos O, Nilsson B & Sowlati T (2011). Costs, CO₂ emissions, and energy balances of applying Nordic slash recovery methods in British Columbia. *Western Journal of Applied Forestry*, 26(1):30-36 (January 2011).

Metz, J.A.J., Leimar, O. A simple fitness proxy for structured populations with continuous traits, with case studies on the evolution of haplo-diploids and genetic dimorphisms (2011) *Journal of Biological Dynamics*, 5 (2), pp. 163-190.

Östergren, J., Lundqvist, H., Nilsson, J. High variability in spawning migration of sea trout, *Salmo trutta*, in two northern Swedish rivers (2011) *Fisheries Management and Ecology*, 18 (1), pp. 72-82.

Patt A, Komendantova N, Battaglini A & Lilliestam J (2011). Regional integration to support full renewable power deployment for Europe by 2050. *Environmental Politics*, 20(5):727-742 (September 2011).

Poos JJ, Brannstrom A & Dieckmann U (2011). Harvest-induced maturation evolution under different life-history trade-offs and harvesting regimes. *Journal of Theoretical Biology*, 279(1):102-112 (21 June 2011) (Published online 8 March 2011).

Rametsteiner, E., Pülzl, H., Alkan-Olsson, J., Frederiksen, P. Sustainability indicator development-science or political negotiation? (2011) *Ecological Indicators*, 11 (1), pp. 61-70.

Schellekens G, Battaglini A, Finlay C, Fuerstenwerth D, Lilliestam J, Patt A & Schmidt P (2011). Moving towards 100 renewable electricity in Europe North Africa by 2050. PricewaterhouseCoopers, London, UK (May 2011).

Schmidt, J., Leduc, S., Dotzauer, E., Schmid, E. Cost-effective policy instruments for greenhouse gas emission reduction and fossil fuel substitution through bioenergy production in Austria (2011) *Energy Policy*, 39 (6), pp. 3261-3280.

Shvidenko A, Schepaschenko D, McCallum I & Nilsson S (2011). Can the uncertainty of full carbon accounting of forest ecosystems be made acceptable to policymakers? In: White T, Jonas M, Nahorski Z & Nilsson S (eds), *Greenhouse Gas Inventories: Dealing With Uncertainty*. Springer, Dordrecht, Netherlands pp.137-157.

Takahashi D, Brannstrom A, Mazzucco R, Yamauchi A & Dieckmann U (2011). Cyclic transitions in simulated food-web evolution. *Journal of Plant Interactions*, 6(2-3):181-182 (June 2011).

Westley, F., Olsson, P., Folke, C., Homer-Dixon, T., Vredenburg, H., Loorbach, D., Thompson, J., Nilsson, M., Lambin, E., Sendzimir, J., Banerjee, B., Galaz, V., Van Der Leeuw, S. Tipping toward sustainability: Emerging pathways of transformation (2011) *Ambio*, 40 (7), pp. 762-780.

White T, Jonas M, Nahorski Z & Nilsson S (eds) (2011). *Greenhouse Gas Inventories: Dealing With Uncertainty*. Springer, Dordrecht, Netherlands.

2010

Azar, C., Lindgren, K., Obersteiner, M., Riahi, K., van Vuuren, D.P., den Elzen, K.M.G.J., Möllersten, K., Larson, E.D. The feasibility of low CO₂ concentration targets and the role of bio-energy with carbon capture and storage (BECCS) (2010) *Climatic Change*, 100 (1), pp. 195-202.

Battaglini A & Lilliestam J (2010). Das SuperSmart Grid - die Moeglichkeit fuer 100 Prozent Erneuerbare Energie. In: Tor Stiftung Brandenburger (ed.), *Energie gleich Arbeit: Nachdenken ueber unseren Umgang mit Energie*. Nicolai Verlag, Berlin, Germany pp.38-42.

Battaglini A, Lilliestam J & Knies G (2010). The SuperSmart Grid - Paving the way for a completely renewable power system. In: Schellnhuber HJ, Molina M, Stern N, Huber V &

Kadner S (eds), *Global Sustainability: A Nobel Cause*. Cambridge University Press, Cambridge, UK pp.289-306.

Cofala J, Amann M, Asman WAH, Bertok I, Heyes C, Hoeglund-Isaksson L, Klimont Z, Schoepp W & Wagner F (2010). Integrated assessment of air pollution and greenhouse gases mitigation in Europe. *Archives of Environmental Protection*, 36(1):29-39.

Fischer, G., Prieler, S., van Velthuisen, H., Berndes, G., Faaij, A., Londo, M., de Wit, M. Biofuel production potentials in Europe: Sustainable use of cultivated land and pastures, Part II: Land use scenarios (2010) *Biomass and Bioenergy*, 34 (2), pp. 173-187.

Hoeglund-Isaksson L, Winiwarter W, Wagner F & Amann M (2010). Potentials and Costs for Mitigation of Non-CO₂ Greenhouse Gas Emissions in the European Union Until 2030: Results. Report to the European Commission, DG Climate Action (26 May 2010).

Johansson J, Ripa J & Kucklaender N (2010). The risk of competitive exclusion during evolutionary branching: Effects of resource variability, correlation and autocorrelation. *Theoretical Population Biology*, 77(2):95-104 (March 2010) (Published online 04 November 2009).

Jonas M, Gusti M, Jeda W, Nahorski Z & Nilsson S (2010). Comparison of preparatory signal analysis techniques for consideration in the (post-)Kyoto policy process. *Climatic Change*, 103(1-2):175-213 (November 2010) (Published online 27 July 2010).

Jonas M, Marland G, Winiwarter W, White T, Nahorski Z, Bun R & Nilsson S (2010). Benefits of dealing with uncertainty in greenhouse gas inventories: Introduction. *Climatic Change*, 103(1-2):3-18 (November 2010) (Published online 15 July 2010).

Jonas M, White T, Marland G, Lieberman D, Nahorski Z & Nilsson S (2010). Dealing with uncertainty in GHG inventories: How to go about it? In: Marti K, Ermoliev Y & Makowski M (eds), *Coping with Uncertainty: Robust Solutions*. Springer-Verlag, Heidelberg, Germany pp.229-245.

Leduc S, Lundgren J, Franklin O & Dotzauer E (2010). Location of a biomass based methanol production plant: A dynamic problem in northern Sweden. *Applied Energy*, 87(1):68-75 (January 2010) (Published online 14 April 2009).

Leduc S, Starfelt F, Dotzauer E, Kindermann G, McCallum I, Obersteiner M & Lundgren J (2010). Optimal location of lignocellulosic ethanol refineries with polygeneration in Sweden. *Energy*, 35(6):2709-2716

Leduc S, Wetterlund E & Dotzauer E (2010). Biofuel production in Europe - Potential from lignocellulosic waste. In: *Proceedings Venice 2010, Third International Symposium on Energy from Biomass and Waste*. 8-11 November 2010, Venice, Italy.

McCallum I, Wagner W, Schmillius C, Shvidenko A, Obersteiner M, Fritz S & Nilsson S (2010). Comparison of four global FAPAR datasets over Northern Eurasia for the year 2000. *Remote Sensing of Environment*, 114(5):941-949 (17 May 2010) (Published online 25 January 2010).

Nguyen B, Hoeglund-Isaksson L & Wagner F (2010). Mitigation Efforts Calculator (MEC): An online calculator for interactive comparison of mitigation efforts between UNFCCC Annex 1 countries. In: et al G Kotsis (ed.), Proceedings of the 12th International Conference on Information Integration and Web-based Applications & Services (iiWAS2010). ACM, New York, USA pp.515-521.

Patt A, Pfenninger S & Lilliestam J (2010). Vulnerability of solar energy infrastructure and output to extreme events: Climate change implications (Conference paper). Joint ICTP/IAEA Workshop "Vulnerability of Energy Systems to Climate Change and Extreme Events," International Centre for Theoretical Physics, Trieste, Italy 19-23 April 2010, Trieste, Italy.

Purohit P, Amann M, Mathur R, Gupta I, Marwah S, Verma V, Bertok I, Borken-Kleefeld J, Chambers A, Cofala J, Heyes C, Hoeglund-Isaksson L, Klimont Z, Rafaj P, Sandler R, Schoepp W, Toth G, Wagner F & Winiwarter W (2010). GAINS ASIA: Scenarios for cost-effective control of air pollution and greenhouse gases in India. IIASA, Laxenburg, Austria (November 2010).

Reid G, Lilliestam J, Battaglini A, Mitchell C, Patt A & Schellekens G (2010). A Global Renewables Investment Plan (Conference paper). Delhi International Renewable Energy Conference (DIREC), 26-29 October 2010, New Delhi, India.

Rossberg AG, Brannstrom A & Dieckmann U (2010). Food-web structure in low- and high-dimensional trophic niche spaces. *Journal of the Royal Society Interface*, 7(53):1735-1743 (6 December 2010) (Published online 12 May 2010).

Rossberg AG, Brannstrom A & Dieckmann U (2010). How trophic interaction strength depends on traits: A conceptual framework for representing multidimensional trophic niche spaces. *Theoretical Ecology*, 3(1):13-24 (February 2010) (Published online 22 April 2009).

Sander N, Skirbekk V, KC S & Lundevalle E (2010). Prospects for later-life migration in urban Europe. PLUREL Report D1.2.4, Module 1: Driving forces and global trends (October 2010).

Schellekens G, Battaglini A, Lilliestam J, McDonnell J & Patt A (2010). 100 renewable electricity: A roadmap to 2050 for Europe and North Africa. PricewaterhouseCoopers, London, UK.

Schmidt, J., Leduc, S., Dotzauer, E., Kindermann, G., Schmid, E. Potential of biomass-fired combined heat and power plants considering the spatial distribution of biomass supply and heat demand (2010) *International Journal of Energy Research*, 34 (11), pp. 970-985.

Schmidt, J., Leduc, S., Dotzauer, E., Kindermann, G., Schmid, E. Cost-effective CO₂ emission reduction through heat, power and biofuel production from woody biomass: A spatially explicit comparison of conversion technologies (2010) *Applied Energy*, 87 (7), pp. 2128-2141.

Shvidenko A, Schepaschenko D, McCallum I & Nilsson S (2010). Can the uncertainty of full carbon accounting of forest ecosystems be made acceptable to policymakers? *Climatic Change*, 103(1-2):137-157 (November 2010) (Published online 14 July 2010).

Vainikka, A., Kallio-Nyberg, I., Heino, M., Koljonen, M.-L. Divergent trends in life-history traits between Atlantic salmon *Salmo salar* of wild and hatchery origin in the Baltic Sea (2010) *Journal of Fish Biology*, 76 (3), pp. 622-640.

Warr, B., Ayres, R., Eisenmenger, N., Krausmann, F., Schandl, H. Energy use and economic development: A comparative analysis of useful work supply in Austria, Japan, the United Kingdom and the US during 100years of economic growth (2010) *Ecological Economics*, 69 (10), pp. 1904-1917.

Wetterlund E (2010). Optimal Localization of Biofuel Production on a European Scale. IIASA Interim Report IR-10-020.

Williges K, Lilliestam J & Patt A (2010). Making concentrated solar power competitive with coal: The costs of a European feed-in tariff. *Energy Policy*, 38(6):3089-3097 (June 2010) (Published online 18 February 2010).

Winiwarter W, Hoeglund-Isaksson L, Schoepp W, Tohka A, Wagner F & Amann M (2010). Emission mitigation potentials and costs for non-CO2 greenhouse gases in Annex-I countries according to the GAINS model. *Journal of Integrative Environmental Sciences*, 7(S1):235-243 (July 2010).

2009

Amann M, Bertok I, Borken-Kleefeld J, Cofala J, Heyes C, Hoeglund-Isaksson L, Klimont Z, Purohit P, Rafaj P, Schoepp W, Toth G, Wagner F & Winiwarter W (2009). Potentials and Costs for Greenhouse Gas Mitigation in Annex I Countries: Methodology. IIASA Interim Report IR-09-043.

Apsimon, H., Amann, M., Åström, S., Oxley, T. Synergies in addressing air quality and climate change (2009) *Climate Policy*, 9 (6), pp. 669-680.

Battaglini A, Lilliestam J, Haas A & Patt A (2009). Development of SuperSmart Grids for a more efficient utilisation of electricity from renewable sources. *Journal of Cleaner Production*, 17(10):911-918 (July 2009).

Dewar RC, Franklin O, Maekelae A, McMurtrie RE & Valentine HT (2009). Optimal function explains forest responses to global change. *BioScience*, 59(2):127-139 (February 2009).

Franklin O, Aoki K & Seidl R (2009). A generic model of thinning and stand density effects on forest growth, mortality and net increment. *Annals of Forest Science*, 66(8):815p1-815p11 (December 2009).

Franklin O, McMurtrie RE, Iversen CM, Crous KY, Finzi AC, Tissue DT, Ellsworth D, Oren R & Norby RJ (2009). Forest fine-root production and nitrogen use under elevated CO₂: Contrasting responses in evergreen and deciduous trees explained by a common principle. *Global Change Biology*, 15(1):132-144 (January 2009).

Fuss, S., Johansson, D.J.A., Szolgayova, J., Obersteiner, M. Impact of climate policy uncertainty on the adoption of electricity generating technologies (2009) *Energy Policy*, 37 (2), pp. 733-743.

Hoeglund-Isaksson L, Winiwarter W & Tohka A (2009). Potentials and Costs for Mitigation of Non-CO2 Greenhouse Gases in Annex 1 Countries: Version 2.0. IIASA Interim Report IR-09-044.

Johansson J & Dieckmann U (2009). Evolutionary responses of communities to extinctions. *Evolutionary Ecology Research*, 11(4):561-588 (May 2009).

Klimont Z, Amann M, Cofala J, Borcken-Kleefeld J, Purohit P & Hoeglund-Isaksson L (2009). Reduction of Energy Consumption / CO2 Emission and Improvement of Air Quality in Asia. Final Report to Sponsor (Research Agreement Phase I): Toyota Motor Corporation, Japan (March 2009).

Leduc, S., Natarajan, K., Dotzauer, E., McCallum, I., Obersteiner, M. Optimizing biodiesel production in India (2009) *Applied Energy*, 86 (SUPPL. 1), pp. S125-S131.

Leduc, S., Schmid, E., Obersteiner, M., Riahi, K. Methanol production by gasification using a geographically explicit model (2009) *Biomass and Bioenergy*, 33 (5), pp. 745-751.

Lehmijoki U & Rovenskaya E (2009). Air pollution mortality in Denmark, Finland and Sweden. *Finnish Yearbook of Population Research* 2009, XLIV:97-108.

McCallum I, Wagner W, Schmulilius C, Shvidenko A, Obersteiner M, Fritz S & Nilsson S (2009). Satellite-based terrestrial production efficiency modeling. *Carbon Balance and Management*, 4:8(18 September 2009).

Monks, P.S., Granier, C., Fuzzi, S., Stohl, A., Williams, M.L., Akimoto, H., Amann, M., Baklanov, A., Baltensperger, U., Bey, I., Blake, N., Blake, R.S., Carslaw, K., Cooper, O.R., Dentener, F., Fowler, D., Fragkou, E., Frost, G.J., Generoso, S., Ginoux, P., Grewe, V., Guenther, A., Hansson, H.C., Henne, S., Hjorth, J., Hofzumahaus, A., Huntrieser, H., Isaksen, I.S.A., Jenkin, M.E., Kaiser, J., Kanakidou, M., Klimont, Z., Kulmala, M., Laj, P., Lawrence, M.G., Lee, J.D., Liousse, C., Maione, M., McFiggans, G., Metzger, A., Mieville, A., Moussiopoulos, N., Orlando, J.J., O'Dowd, C.D., Palmer, P.I., Parrish, D.D., Petzold, A., Platt, U., Pöschl, U., Prévôt, A.S.H., Reeves, C.E., Reimann, S., Rudich, Y., Sellegri, K., Steinbrecher, R., Simpson, D., ten Brink, H., Theloke, J., van der Werf, G.R., Vautard, R., Vestreng, V., Vlachokostas, Ch., von Glasow, R. Atmospheric composition change - global and regional air quality (2009) *Atmospheric Environment*, 43 (33), pp. 5268-5350.

Nilsson S, et al. (2009). The Challenges for the Indian Forestry Sector. IIASA Policy Brief 05 (February 2009).

Nilsson S (2009). Economic Crisis and the Global Forest Sector. IIASA Interim Report IR-09-012.

Nilsson S & Rametsteiner E (2009). Review of the MCPFE Process Tasks 1-4. Final Report to Sponsor: Norsk Institutt for Skog og Landskap, Norway (October 2009).

Patt A, Battaglini A, Komendantova N, Milkoreit M & Lilliestam J (2009). Beyond feasibility: Linking the Mediterranean region's renewable energy resources to Europe - A roadmap for addressing the policy challenges (Abstract). *IOP Conference Series: Earth and Environmental Science*, 6(19):192003 (1 February 2009).

Palm, D., Lindberg, M., Brännäs, E., Lundqvist, H., Östergren, J., Carlsson, U. Influence of European sculpin, *Cottus gobio*, on Atlantic salmon *Salmo salar*, recruitment and the effect of gravel size on egg predation - implications for spawning habitat restoration (2009) *Fisheries Management and Ecology*, 16 (6), pp. 501-507.

Pang, J.-F., Kluetsch, C., Zou, X.-J., Zhang, A.-B., Luo, L.-Y., Angleby, H., Ardalán, A., Ekström, C., Skölleremo, A., Lundeberg, J., Matsumura, S., Leitner, T., Zhang, Y.-P., Savolainen, P. MtDNA data indicate a single origin for dogs south of yangtze river, less than 16,300 years ago, from numerous wolves (2009) *Molecular Biology and Evolution*, 26 (12), pp. 2849-2864.

Shvidenko A, Schepaschenko D, McCallum I, Kraxner F, Nilsson S & Maksyutov S (2009). Verified terrestrial ecosystems full carbon account for Russia: A reanalysis (Abstract). In: 8th International Carbon Dioxide Conference, 13-19 September 2009, Jena, Germany.

Shvidenko A, Schepaschenko D, McCallum I, Nilsson S & Sukhinin A (2009). Carbon and nitrogen emissions due to vegetation fire in Russia in 2004-2008 (Abstract). *Geophysical Research Abstracts*, 11:EGU2009-6906.

Shvidenko AZ, Schepaschenko DG & Nilsson S (2009). Assessment of wood detritus storage in forests of Russia. *Forest Inventory and Forest Management*, 1(41):133-147 (March 2009).

2008

Carmichael, G.R., Sakurai, T., Streets, D., Hozumi, Y., Ueda, H., Park, S.U., Fung, C., Han, Z., Kajino, M., Engardt, M., Bennet, C., Hayami, H., Sartelet, K., Holloway, T., Wang, Z., Kannari, A., Fu, J., Matsuda, K., Thongboonchoo, N., Amann, M. MICS-Asia II: The model intercomparison study for Asia Phase II methodology and overview of findings (2008) *Atmospheric Environment*, 42 (15), pp. 3468-3490.

Christensen, P., Ecke, F., Sandström, P., Nilsson, M., Hörnfeldt, B. Can landscape properties predict occurrence of grey-sided voles? (2008) *Population Ecology*, 50 (2), pp. 169-179.

Ecke, H., Svensson, M. Mobility of organic carbon from incineration residues (2008) *Waste Management*, 28 (8), pp. 1301-1309.

Ermoliev Y, Ermolieva T, Fischer G, Makowski M, Nilsson S & Obersteiner M (2008). Discounting, catastrophic risks management and vulnerability modeling. *Mathematics and Computers in Simulation*, 79(4):917-924 (15 December 2008).

Han, Z., Sakurai, T., Ueda, H., Carmichael, G.R., Streets, D., Hayami, H., Wang, Z., Holloway, T., Engardt, M., Hozumi, Y., Park, S.U., Kajino, M., Sartelet, K., Fung, C., Bennet, C., Thongboonchoo, N., Tang, Y., Chang, A., Matsuda, K., Amann, M. MICS-Asia II: Model intercomparison and evaluation of ozone and relevant species (2008) *Atmospheric Environment*, 42 (15), pp. 3491-3509.

Hayami, H., Sakurai, T., Han, Z., Ueda, H., Carmichael, G.R., Streets, D., Holloway, T., Wang, Z., Thongboonchoo, N., Engardt, M., Bennet, C., Fung, C., Chang, A., Park, S.U., Kajino, M., Sartelet, K., Matsuda, K., Amann, M. MICS-Asia II: Model intercomparison and

evaluation of particulate sulfate, nitrate and ammonium (2008) *Atmospheric Environment*, 42 (15), pp. 3510-3527.

Holloway, T., Sakurai, T., Han, Z., Ehlers, S., Spak, S.N., Horowitz, L.W., Carmichael, G.R., Streets, D.G., Hozumi, Y., Ueda, H., Park, S.U., Fung, C., Kajino, M., Thongboonchoo, N., Engardt, M., Bennet, C., Hayami, H., Sartelet, K., Wang, Z., Matsuda, K., Amann, M. MICS-Asia II: Impact of global emissions on regional air quality in Asia (2008) *Atmospheric Environment*, 42 (15), pp. 3543-3561.

Jonas M, Gusti M & Nilsson S (2008). *Assessing Uncertainty in Bottom-up Full Carbon Accounting for Russia*. Brief project report. IIASA, Laxenburg, Austria [2008].

Leduc, S., Schwab, D., Dotzauer, E., Schmid, E., Obersteiner, M. Optimal location of wood gasification plants for methanol production with heat recovery (2008) *International Journal of Energy Research*, 32 (12), pp. 1080-1091.

Leimar, O., Doebeli, M., Dieckmann, U. Evolution of phenotypic clusters through competition and local adaptation along an environmental gradient (2008) *Evolution*, 62 (4), pp. 807-822.

Lundmark, R. Empirical specification of cost reductions associated with accumulated knowledge in the Swedish kraft paper industry (2008) *Forest Policy and Economics*, 10 (7-8), pp. 460-466.

Nilsson, J., Östergren, J., Lundqvist, H., Carlsson, U. Genetic assessment of Atlantic salmon *Salmo salar* and sea trout *Salmo trutta* stocking in a Baltic Sea river (2008) *Journal of Fish Biology*, 73 (5), pp. 1201-1215.

Nilsson S (ed.) (2008). *The Indian Forest Sector: Current Trends and Future Challenges*. *International Forestry Review - Special Issue*, 10(2):101-421 [2008].

Nilsson S (2008). *The Indian forestry system at a crossroads: An outsider's view*. *International Forestry Review*, 10(2):414-421 [2008].

Nilsson S (2008). *Introduction: The Indian Forest Sector: Current Trends and Future Challenges*. *International Forestry Review*, 10(2):101 [2008].

Östergren, J., Rivinoja, P. Overwintering and downstream migration of sea trout (*Salmo trutta* L.) kelts under regulated flows - northern Sweden (2008) *River Research and Applications*, 24 (5), pp. 551-563.

Pekka, L., Halmeenpää, H., Ecke, F., Vuori, K.-M., Mokrotovarova, O., Öhlander, B., Ingri, J. Assessing pollution in the Kola River, northwestern Russia, using metal concentrations in water and bryophytes (2008) *Boreal Environment Research*, 13 (1), pp. 15-30.

Roberts D, White A & Nilsson S (2008). *Convergence of Food, Fuel and Fibre Markets: Driving Change in the World's Forests*. In: *ArborVitae: Issue 37* p.8 [2008].

Roberts D, White A & Nilsson S (2008). *Forests and Biofuel Production*. *Canadian Silviculture*; November 2008 [2008].

Shvidenko A, Nilsson S, Shchepashchenko DG & McCallum I (2008). *Productivity of northern Eurasian forests in a changing world*. In: Di X, Wang C & Wang X (eds), *Program and*

Abstract Book. The 14th Scientific Conference of the International Boreal Forest Research Association (IBFRA), 22-27 September 2008, Harbin, China pp.33-34.

Shvidenko A, Shchepashchenko DG, McCallum I & Nilsson S (2008). Land cover of Russia: system integration of remote sensing and ground data. In: Enviromis 2008. International Conference on Environmental Observations, Modeling and Information Systems. 28 June-6 July 2008, Tomsk, Russia p.115 [2008].

Shvidenko A, Shchepashchenko DG & Nilsson S (2008). Current increment of forests of Russia: An estimate at beginning of the 3rd Millennium. *Forest Inventory and Planning*, 1(39):83-100 [2008].

Shvidenko A, Shchepashchenko DG & Nilsson S (2008). Materials to understanding productivity of Russian forests. In: *Proceedings of the International Workshop on Sustainable Management of Russian Forests*. 5 December 2007, Krasnoyarsk, Russia pp. 1-31 [2008].

Shvidenko A, Shchepashchenko DG, Nilsson S & Buluy YI (2008). *Tables and Models of Growth and Productivity of Forests of Major Forest Forming Species of Northern Eurasia (Standard and Reference Materials)*. Federal Agency of Forest Management; Moscow, Russia.

Shvidenko A, Shchepashchenko DG, Nilsson S & McCallum I (2008). Major indicators of productivity of Russian forests: a system reanalysis. In: *Enviromis 2008. International Conference on Environmental Observations, Modeling and Information Systems*. 28 June-6 July 2008, Tomsk, Russia pp. 99-100 [2008].

Shvidenko AZ, Shchepashchenko DG, Nilsson S & Vaganov EA (2008). Net primary production of forest ecosystems of Russia: A new estimate. *Doklady Earth Sciences*, 421A(6):1009-1012 [2008].

Terama, E., Ollila, O.H.S., Salonen, E., Rowat, A.C., Trandum, C., Westh, P., Patra, M., Karttunen, M., Vattulainen, I. Influence of ethanol on lipid membranes: From lateral pressure profiles to dynamics and partitioning (2008) *Journal of Physical Chemistry B*, 112 (13), pp. 4131-4139.

Wang, Z., Xie, F., Sakurai, T., Ueda, H., Han, Z., Carmichael, G.R., Streets, D., Engardt, M., Holloway, T., Hayami, H., Kajino, M., Thongboonchoo, N., Bennet, C., Park, S.U., Fung, C., Chang, A., Sartelet, K., Amann, M. MICS-Asia II: Model inter-comparison and evaluation of acid deposition (2008) *Atmospheric Environment*, 42 (15), pp. 3528-3542.