

- Acuna, M., Anttila, P., Sikanen, L., Prinz, R. & Asikainen, A. Predicting and controlling moisture content to optimise forest biomass logistics. *Croatian Journal of Forest Engineering* 25(2): 225-238.
- Adamczyk, B., Salminen, J.-P., Smolander, A. & Kitunen, V. Precipitation of proteins by tannins: effects of concentration, protein/tannin ratio and pH. *International Journal of Food Science & Technology* 47: 875-878.
- Aherne, J., Posch, M., Forsius, M., Lehtonen, A. & Härkönen, K. Impacts of forest biomass removal on soil nutrient status under climate change: a catchment-based modelling study for Finland. *Biogeochemistry* 107(1-3): 471-488.
- Ahtikoski, A., Ojansuu, R., Haapanen, M., Hynynen, J. & Kärkkäinen, K. Financial performance of using genetically improved regeneration material of Scots pine (*Pinus sylvestris* L.) in Finland. *New Forests* 43(3): 335-348.
- Ahtikoski, A., Salminen, H., Hökkä, H., Kojola, S. & Penttilä, T. Optimizing stand management on peatlands: the case of northern Finland. *Canadian Journal of Forest Research* 42: 247-259.
- Ammunét, T., Kaukoranta, T., Saikkonen, K., Repo, T. & Klemola, T. Invading and resident defoliators in a changing climate: cold tolerance and predictions concerning extreme winter cold as a range-limiting. *Ecological Entomology* 37: 212-220.
- Antikainen, J., Hirvonen, T., Kinnunen, J. & Hauta-Kasari, M. Heartwood detection for Scotch pine by fluorescence image analysis. *Holzforschung* 66(7): 877-881.
- Aronen, T. & Ryyänänen, L. Variation in telomeric repeats of Scots pine (*Pinus sylvestris* L.). *Tree Genetics & Genomes* 8: 267-275.
- Arponen, A., Lehtomäki, J., Leppänen, J., Tomppo, E. & Moilanen, A. Effects of connectivity and spatial resolution of analyses on conservation prioritization across large extents. *Conservation Biology* 26(2): 294-304.
- Asam, Z., Kaila, A., Nieminen, M., Sarkkola, S., O'Driscoll, C., O'Connor, M., Sana, A., Rodgers, M. & Xiao, L. Assessment of phosphorus retention efficiency of blanket peat buffer areas using a laboratory flume approach. *Ecological Engineering* 49: 160-169.
- Barua, S.K., Uusivuori, J. & Kuuluvainen J. Impacts of carbon-based policy instruments and taxes on tropical deforestation. *Ecological Economics* 73: 211-219.
- Billett, M.F., Garnett, M.H., Dinsmore, K.J., Dyson, K.E., Harvey, F., Thomson, A.M., Piirainen, S. & Kortelainen, P. Age and source of different forms of carbon released from boreal peatland streams during spring snowmelt in E. Finland. *Biogeochemistry* 111(1-3): 273-286.
- Botella, L., Tuomivirta, T.T., Hantula, J. & Diez, J.J. Presence of viral dsRNA molecules in the Spanish population of *Gremmeniella abietina*. *Journal of Agricultural Extension and Rural Development* 4(9): 211-213.
- Botella, L., Tuomivirta, T.T., Vervuurt, S., Diez, J.J. & Hantula, J. Occurrence of two different species of mitoviruses in the European race of *Gremmeniella abietina* var. *abietina*, both hosted by the genetically unique Spanish population. *Fungal Biology* 116: 872-882.
- Bragazza, L., Buttler, A., Habermacher, J., Brancaloni, L., Gerdol, R., Fritze, H., Hanajík, P., Laiho, R. & Johnson, D. High nitrogen deposition alters the decomposition of bog plant litter and reduces carbon accumulation. *Global Change Biology* 18: 1163-1172.

- Cagnacci, F., Bolzoni, L., Rosà, R., Carpi, G., Hauffe, H.C., Valent, M., Tagliapietra, V., Kazimirova, M., Koci, J., Stanko, M., Lukan, M., Henttonen, H. & Rizzoli, A. Effects of deer density on tick infestation of rodents and hazard of tick-borne encephalitis. I: Empirical assessment. *International Journal of Parasitology* 42: 365-372.
- Callejón, R., Rojas, M. de, Feliú, C., Balao, F., Marrugal, A., Henttonen, H., Guevara, D. & Cutillas, C. Phylogeography of *Trichuris* populations isolated from different Cricetidae rodents. *Parasitology* 139: 1795-1812.
- Cao, Y., Lehto, T., Piirainen, S., Kukkonen, J.V.K. & Pelkonen, P. Effects of planting orientation and density on the soil solution chemistry and growth of willow cuttings. *Biomass & Bioenergy* 46: 165-173.
- Dighton, J., Helmisaari, H.-S., Maghirang, M., Smith, S., Malcolm, K., Johnson, W., Quast, L., Lallier, B., Gray, D., Setälä, H., Starr, M., Lairo, J. & Kukkola, M. Impacts of forest post thinning residues on soil chemistry, fauna and roots: Implications of residue removal in Finland. *Applied Soil Ecology* 60: 16-22.
- Dunger, K., Petersson, S.H.-O., Barreiro, S., Cienciala, E., Colin, A., Hulen, G., Kusar, G., Oehmichen, K., Tomppo, E., Tuomainen, T. & Ståhl, G. Harmonizing greenhouse gas reporting from European forests: Case examples and implications for European Union level reporting. *Forest Science* 58(3): 248-256.
- Eeva, T., Andelmin, P., Hokkanen, T., Riivari, P., Ahola, M., Laaksonen, T. & Lehikoinen, E. Breeding time trends of the Crested Tit (*Lophophanes cristatus*) in southern Finland: comparison of data sources. *Journal of Ornithology* 153(3): 653-661.
- Elmendorf, S.C. et al. (46 authors, from FFRI Tolvanen, A.). Global assessment of experimental climate warming on tundra vegetation: heterogeneity over space and time. *Ecology Letters* 15(2): 164-175.
- Elmendorf, S.C. et al. (49 authors, from FFRI Tolvanen, A.). Plot-scale evidence of tundra vegetation change and links to recent summer warming. *Nature Climate Change* 2: 453-457.
- Eriksson, L.O., Gustavsson, L., Hänninen, R., Kallio, M., Lyhykäinen, H., Pingoud, K., Pohjola, J., Sathre, R., Solberg, B., Svanaes, J. & Valsta, L. Climate change mitigation through increased wood use in the European construction sector - towards an integrated modelling framework. *European Journal of Forest Research* 131: 131-144.
- Esper, J., Büntgen, U., Timonen, M. & Frank, D.C. Variability and extremes of northern Scandinavian summer temperatures over the past two millennia. *Global and Planetary Change* 88-89: 9 p.
- Esper, J., Frank, D.C., Timonen, M., Zorita, E., Wilson, R.J.S., Luterbacher, J., Holzkämper, S., Fischer, N., Wagner, S., Nievergelt, D., Verstege, A. & Büntgen, U. Orbital forcing of tree-ring data. *Nature Climate Change* 2: 862-866.
- Eyvindson, K., Hujala, T., Kangas, A. & Kurttila, M. Selecting a forest plan among alternatives: Consistency of preferences within decision support frameworks. *Forest Policy and Economics* 15: 114-122.
- Gabler, K., Schadauer, K., Tomppo, E., Vidal, C., Bonhomme, C., McRoberts, R.E. & Gschwantner, T. An enquiry of forest areas reported to the Global Forest Resources Assessment - is harmonization needed? *Forest Science* 58(3): 201-213.
- Gagen, M., McCarroll, D., Jalkanen, R., Loader, N.J., Robertson, I. & Young, G.H.F. A rapid method for the production of robust millennial length stable isotope tree ring series for climate reconstruction. *Global and Planetary Change* 82-83: 96-103.
- Gerasimov, Y. & Karjalainen, T. Estimation of machinery market size for industrial and energy wood harvesting in Leningrad Region. *Croatian Journal of Forest Engineering* 33(1): 49-60.

- Gerasimov, Y., Davydkov, G., Katarov, V., Kilpelianen, S., Persky, S., Rozhin, D., Seliverstov, A., Sokolov, A., Sukhanov, Y. & Syunev, V. Approbation of the decision support system for forest energy: Technological background (in Russian). *Scientific Journal of the Kuban State Agrarian University* 82(8): 564-588.
- Gerasimov, Y., Seliverstov, A. & Syunev, V. Industrial round-wood damage and operational efficiency losses associated with the maintenance of a single-grip harvester head model: A case study in Russia. *Forests* 3(4): 864-880.
- Gerasimov, Y., Senkin, V. & Väätäinen, K. Productivity of single-grip harvesters in clear-cutting operations in the northern European part of Russia. *European Journal of Forest Research* 131(3): 647-654.
- Gerasimov, Y., Senkin, V. & Väätäinen, K. Productivity of harvesters in clear cuttings (in Russian). *Resources and Technology* 9(2): 82-93.
- Gerasimov, Y., Sokolov, A., Syunev, V. & Sukhanov, Y. Approbation of the decision support system for forest energy: Economic background (in Russian). *Proceedings of Petrozavodsk State University. Natural & Engineering Sciences* 8(129): 90-94.
- Guendehou, G.H.S., Lehtonen, A., Moudachirou, M., Mäkipää, R. & Sinsin, B. Stem biomass and volume models of selected tropical tree species in West Africa. *Southern Forests: a Journal of Forest Science* 74: 77-88.
- Haara, A. & Kangas, A. Comparing K Nearest Neighbours methods and linear regression - Is there reason to select one over the other? *Mathematical and Computational Forestry & Natural-Resource Sciences* 4(1): 50-65.
- Hallongren, H. & Rantala, J. Commercialisation and international market potential of Finnish silvicultural machines. *Silva Fennica* 46(4): 583-593.
- Hamberg, L., Korhonen, K. & Hantula, J. Interaction between *Chondrostereum purpureum* and *Phlebiopsis gigantea* in mixed suspensions and their biocontrol efficacy in spruce logs and birch stumps. *Biocontrol Science and Technology* 22(10): 1239-1243.
- Hantula, J., Hamberg, L., Vartiamäki, H., Korhonen, K. & Uotila, A. A review on the efficacy tests and risk analyses conducted on *Chondrostereum purpureum*, a potential biocontrol agent, in Finland. *Forest Systems* 21(2): 343-347.
- Hantula, J., Stringer, R.N., Lilja, A. & Kurkela, T. Alder rust, *Melampsorium hiratsukanum* Ito, identified from Wales, UK and British Columbia, Canada. *Forest Pathology* 42(4): 348-350.
- Harmens, H. et al. (37 authors, from FFRI Kubin, E. & Poikolainen, J.). Country-specific correlations across Europe between modelled atmospheric cadmium and lead deposition and concentrations in mosses. *Environmental Pollution* 166: 1-9.
- Hartikainen, K., Riikonen, J., Nerg, A.-M., Kivimäenpää, M., Ahonen, V., Tervahauta, A., Kärenlampi, S., Mäenpää, M., Rousi, M., Kontunen-Soppela, S., Oksanen, E. & Holopainen, T. Impact of elevated temperature and ozone on the emission of volatile organic compounds and gas exchange of silver birch (*Betula pendula* Roth). *Environmental and Experimental Botany* 84: 33-43.
- Hautamäki, S., Mutanen, A. & Viitanen, J. Substitution in the Finnish forest industry's roundwood procurement. *Silva Fennica* 46(3): 425-440.
- Haviola, S., Neuvonen, S., Rantala, M.J., Saikkonen, K., Salminen, J.-P., Saloniemi, I., Yang, S. & Ruuhola, T. Genetic and environmental factors behind foliar chemistry of the mature mountain birch. *Journal of Chemical Ecology* 38: 902-913.

- Heikkilä, J., Hamberg, L. & Meurman, J.H. Temporomandibular disorders: Symptoms and facial pain in orchestra musicians in Finland. *Music and Medicine* 4(3): 171-176.
- Heikkinen, J., Tomppo, E., Freudenschuss, A., Weiss, P., Hysten, G., Kusar, G., McRoberts, R., Kändler, G., Cienciala, E., Petersson, H. & Ståhl, G. Interpolating and extrapolating information from periodic forest surveys for annual greenhouse gas reporting. *Forest Science* 58(3): 236-247.
- Helama, S. A review of citation patterns in doctoral dissertations at the Department of Geology, University of Helsinki, Finland, since 1896. *Science & Technology Libraries* 31(2): 180-189.
- Helama, S., Bégin, Y., Vartiainen, M., Peltola, H., Kolström, T. & Meriläinen, J. Quantifications of dendrochronological information from contrasting microdensitometric measuring circumstances of experimental wood samples. *Applied Radiation and Isotopes* 70(6): 1014-1023.
- Helama, S. & Devall, M.S. (eds). *World Dendro 2010*. *Dendrochronologia* 30(2): 67-198.
- Helama, S. & Holopainen, J. Spring temperature variability relative to the North Atlantic Oscillation and sunspots - A correlation analysis with a Monte Carlo implementation. *Palaeogeography, Palaeoclimatology, Palaeoecology* 326-328: 128-134.
- Helama, S., Hyttinen, O. & Salonen, V.-P. Late Weichselian varve archives re-explored to assess proglacial sedimentary chronologies using the principles of tree-ring analysis. *Progress in Physical Geography* 36(2): 188-209.
- Helama, S., Läänelaid, A., Raisio, J. & Tuomenvirta, H. Mortality of urban pines in Helsinki explored using tree rings and climate records. *Trees - Structure and Function* 26(2): 353-362.
- Helama, S., Seppä, H., Bjune, A.E. & Birks, H.J.B. Fusing pollen-stratigraphic and dendroclimatic proxy data to reconstruct summer temperature variability during the past 7.5 ka in subarctic Fennoscandia. In: Kaufman, D.S. (ed.). *Holocene paleoenvironmental records from Arctic lake sediment*. *Journal of Paleolimnology* 48(1): 272-286.
- Helle, T., Hallikainen, V., Särkelä, M., Haapalehto, M., Niva, A. & Puoskari, J. Effects of a holiday resort on the distribution of semi-domesticated reindeer. *Annales Zoologici Fennici* 49(1-2): 23-35.
- Hietala, R., Silvennoinen, H., Tóth, B. & Tyrväinen, L. Nearby nature and experiential farming: How are their roles perceived within the rural-urban fringe? *Landscape Research* 37(2): 1-17.
- Hilli, S., Stark, S., Willför, S., Smeds, A., Reunanen, M. & Hautajärvi, R. What is the composition of AIR? Pyrolysis-GC-MS characterization of acid-insoluble residue from fresh litter and organic horizons under boreal forests in southern Finland. *Geoderma* 179-180: 63-72.
- Hiltunen, V., Kurttila, M. & Pykäläinen, J. Strengthening top-level guidance in geographically hierarchical large scale forest planning: Experiences from the Finnish state forests. *Silva Fennica* 46(4): 539-554.
- Himänen, K., Nygren, M. & Dumroese, R.K. Boiling water scarification plus stratification improves germination of *Iliamna rivularis* (Malvaceae) seeds. *Native Plants Journal* 13(3): 244-256.
- Holopainen, J., Rickard, I.J. & Helama, S. Climatic signatures in crops and grain prices in 19th-century Sweden. *Holocene* 22(8): 939-945.
- Huttunen, L., Niemelä, P., Ossipov, V., Rousi, M. & Klemola T. Do warmer growing seasons ameliorate the recovery of mountain birches after winter moth outbreak? *Trees - Structure and Function* 26(3): 809-819.
- Hytönen, J. & Aro, L. Biomass and nutrition of naturally regenerated and coppiced birch on cutaway

peatland during 37 years. *Silva Fennica* 46(3): 377-394.

Hänninen, T., Tukiainen, P., Svedström, K., Serimaa, R., Saranpää, P., Kontturi, E., Hughes, M. & Vuorinen, T. Ultrastructural evaluation of compression wood-like properties of common juniper (*Juniperus communis* L.). *Holzforschung* 66: 389-395.

Härkönen, L., Kaitala, A., Kaunisto, S. & Repo, T. High cold tolerance through four seasons and all free-living stages in an ectoparasite. *Parasitology* 139: 926-933.

Hökkä, H., Repola, J. & Moilanen, M. Modelling volume growth response of young Scots pine (*Pinus sylvestris*) stands to N, P, and K fertilization in drained peatland sites in Finland. *Canadian Journal of Forest Research* 42(7): 1359-1370.

Hökkä, H., Repola, J., Moilanen, M. & Saarinen, M. Seedling establishment on small cutting areas with or without site preparation in a drained spruce mire - a case study in northern Finland. *Silva Fennica* 46(5): 695-705.

Hökkä, H., Salminen, H. & Ahti, E. Effect of temperature and precipitation on the annual diameter growth of Scots pine on drained peatlands and adjacent mineral soil sites in Finland. In: Helama, S. & Devall, M.S. (eds.). *World Dendro 2010. Dendrochronologia* 30(2): 157-164.

International Energy Agency - Implementing Agreement for Hydropower Technologies and Programmes. Annex XII. Hydropower and the Environment. Task 1: Managing the Carbon Balance in Freshwater Reservoirs. Member Countries: Brazil, Japan, Finland, Norway and USA. Main Contributors: Damazio J.M., Melo, A.C.G. de, Maceira M.E.P., Medeiros, A.M., Negrini, M., Alm, J., Schei, T.A., Tateda, Y., Smith, B., Nielsen, N. 2012. Guidelines for Quantitative Analysis of Net GHG Emissions from Reservoirs. Volume 1 - Measurement Programs and Data Analysis. IEA Technical Report. IEA Hydropower, 87 p.

Iost, S., Rautio, P. & Lindroos, A.-J. Spatio-temporal trends in soil solution Bc/Al and N in relation to critical limits in European forest soils. *Water, Air, and Soil Pollution* 223: 1467-1479.

Islam, Md.N., Pukkala, T., Kurttila, M., Mehtätalo, L. & Heinonen, T. Effects of forest inventory errors on the area and spatial layout of harvest blocks. *European Journal of Forest Research* 131: 1943-1955.

Iversen, C.M., Murphy, M.T., Allen, M.F., Childs, J., Eissenstat, D.M., Lilleskov, E.A., Sarjala, T.M., Sloan, V.L. & Sullivan, P.F. Advancing the use of minirhizotrons in wetlands. *Plant and Soil* 352(1-2): 23-39.

Jacquet, M., Harala, E., Lemperiere, G. & Poteri, M. Preliminary results of a slow release formulation of Imidacloprid for the control of the large pine weevil (*Hylobius abietis* L.). *Baltic Forestry* 18(1): 83-90.

Jakobson, M., Tarkkanen, J., Auvinen, E., Häkkinen, R., Laurila, P. & Tapper, A.M. Colposcopy referral rate can be reduced by high-risk human papillomavirus triage in the management of recurrent atypical squamous cells of undetermined significance or low-grade squamous intraepithelial lesion cytology in Finland. *International Journal of STD & AIDS* 23: 485-489.

Juottonen, H., Vikman, A., Nieminen, M., Tuomivirta, T., Tuittila, E.-S., Nousiainen, H., Kell, D., Yrjälä, K., Tervahauta, A. & Fritze, H. Methane-cycling microbial communities and methane emissions in natural and restored peatlands. *Applied and Environmental Microbiology* 78: 6386-6389.

Juutinen, A., Reunanen, P., Mönkkönen, M., Tikkanen, O.-P. & Kouki, J. Conservation of forest biodiversity using temporal conservation contracts. *Ecological Economics* 81: 121-129.

Juutinen, A., Svento, R., Mitani, Y., Mäntymaa, E., Shoji, Y. & Siikamäki, P. Modeling observed and unobserved heterogeneity in choice experiments. *Environmental Economics* 3(2): 57-65.

Jyske, T., Manner, M., Mäkinen, H., Nöjd, P., Peltola, H. & Repo, T. The effects of artificial soil frost on

- cambial activity and xylem formation in Norway spruce. *Trees - Structure and Function* 26(2): 405-419.
- Järnstedt, J., Pekkarinen, A., Tuominen, S., Ginzler, C., Holopainen, M. & Viitala, R. Forest variable estimation using a high-resolution digital surface model. *ISPRS Journal of Photogrammetry and Remote Sensing* 74: 78-84.
- Kaartinen, H., Hyyppä, J., Yu, X., Vastaranta, M., Hyyppä, H., Kukko, A., Holopainen, M., Heipke, C., Hirschmugl, M., Morsdorf, F., Næsset, E., Pitkänen, J., Popescu, S., Solberg, S., Wolf, B.M. & Wu, J.-C. An international comparison of individual tree detection and extraction using airborne laser scanning. *Remote Sensing* 4(4): 950-974.
- Kaila, A., Asam, Z., Sarkkola, S., Xiao, L., Laurén, A., Vasander, H. & Nieminen, M. Decomposition of harvest residue needles on peatlands drained for forestry - Implications for nutrient and heavy metal dynamics. *Forest Ecology and Management* 277: 141-149.
- Kaisanlahti-Jokimäki, M.-L., Jokimäki, J., Huhta, E. & Siikamäki, P. Impacts of seasonal small-scale urbanization on nest predation and bird assemblages at tourist destinations. In: Sandercock, B.K., Lepczyk, C.A. & Warren, P.S. (eds.). *Urban Bird Ecology and Conservation - Studies in avian biology*. University of California Press, Berkeley California. p. 93-110.
- Kaitera, J. & Hiltunen, R. New alternate hosts for the rusts *Cronartium ribicola* and *Cronartium flaccidum* in Finland. *Canadian Journal of Forest Research* 42: 1661-1668.
- Kaitera, J., Hiltunen, R. & Samils, B. Alternate host ranges of *Cronartium flaccidum* and *Cronartium ribicola* in northern Europe. *Botany* 90: 694-703.
- Kajanus, M., Leskinen, P., Kurttila, M. & Kangas, J. Making use of MCDS methods in SWOT analysis - Lessons learnt in strategic natural resources management. *Forest Policy and Economics* 20: 1-9.
- Kalliokoski, T., Reza, M., Jyske, T., Mäkinen, H. & Nöjd, P. Intra-annual tracheid formation of Norway spruce provenances in southern Finland. *Trees - Structure and Function* 26(2): 543-555.
- Kangas, A. & Haara, A. Comparison of nonspatial and spatial approaches with parametric and nonparametric methods in prediction of tree height. *European Journal of Forest Research* 131: 1771-1782.
- Kangas, A., Hurttala, H., Mäkinen, H. & Lappi, J. Estimating the value of wood quality information in constrained optimisation. *Canadian Journal of Forest Research* 42(7): 1347-1358.
- Karppinen, H. New forest owners and owners-to-be: apples and oranges? *Small-scale Forestry* 11(1): 15-26.
- Karttunen, K., Väätäinen, K., Asikainen, A. & Ranta, T. The operational efficiency of waterway transport of forest chips on Finland's Lake Saimaa. *Silva Fennica* 46(3): 395-413.
- Kasurinen, A., Biasi, C., Holopainen, T., Rousi, M., Mäenpää, M. & Oksanen, E. Interactive effects of elevated ozone and temperature on carbon allocation of silver birch (*Betula pendula*) genotypes in an open-air field exposure. *Tree Physiology* 32(6): 737-751.
- Kataja-Aho, S., Pennanen, T., Lensu, A. & Haimi, J. Does stump removal affect early growth and mycorrhizal infection of spruce (*Picea abies*) seedlings in clear-cuts? *Scandinavian Journal of Forest Research* 27: 746-753.
- Kataja-aho, S., Smolander, A., Fritze, H., Norrgård, S. & Haimi, J. Responses of soil carbon and nitrogen transformations to stump removal. *Silva Fennica* 46(2): 169-179.
- Katarov, V., Syuney, V., Ratkova, E. & Gerasimov, Y. Impact of wood forwarding on forest soils. In: *Special Issue Wood Harvesting and Logistics (in Russian)*. *Resources and Technology* 9(2): 73-81.

- Keesstra, S.D., Geissen, V., Mosse, K., Piirainen, S., Scudiero, E., Leistra, M. & van Schaik, L. Soil as a filter for groundwater quality. *Current Opinion in Environmental Sustainability* 4(5): 507-516.
- Kiikkilä, O., Kitunen, V. & Smolander, A. Chemical and biological characterization of dissolved organic matter derived from Norway spruce litter divided into fractions according to molecular size. *European Journal of Soil Biology* 50: 109-111.
- Kiikkilä, O., Kitunen, V., Spetz, P. & Smolander, A. Characterization of dissolved organic matter in decomposing Norway spruce and silver birch litter. *European Journal of Soil Science* 63: 476-486.
- Kilpeläinen, P., Leppänen, K., Spetz, P., Kitunen, V., Ilvesniemi, H., Pranovich, A. & Willför, S. Pressurised hot water extraction of acetylated xylan from birch sawdust. *Nordic Pulp and Paper Research Journal* 27: 680-688.
- Koivuranta, L., Latva-Karjanmaa, T. & Pulkkinen, P. The effect of temperature on seed quality and quantity in crosses between European (*Populus tremula*) and hybrid aspens (*P. tremula* x *P. tremuloides*). *Silva Fennica* 46(1): 17-26.
- Kojola, S., Ahtikoski, A., Hökkä, H. & Penttilä, T. Profitability of alternative management regimes in Scots pine stands on drained peatlands. *European Journal of Forest Research* 131: 413-426.
- Korhonen, K., Hujala, T. & Kurttila, M. Reaching forest owners through their social networks in timber sales. *Scandinavian Journal of Forest Research* 27(1): 88-99.
- Korpunen, H., Virtanen, P., Dahl, O., Jylhä, P. & Uusitalo, J. An activity-based cost calculation for a kraft pulp mill. *TAPPI Journal* 11(9): 19-27.
- Kähkölä, A.-K., Nygren, P., Leblanch, H.A., Pennanen, T. & Pietikäinen, J. Leaf and root litter of a legume tree as nitrogen sources for cacaos with different root colonisation by arbuscular mycorrhizae. *Nutrient Cycling in Agroecosystems* 92: 51-65.
- Laitila, J. & Väätäinen, K. Truck transportation and chipping productivity of whole trees and delimbed energy wood in Finland. *Croatian Journal of Forest Engineering* 33(2): 199-210.
- Lappi, H. & Alén, R. Pyrolysis of tall oil-derived fatty and resin acid mixtures. *ISRN Renewable Energy* 2012. 8 p.
- Larjavaara, M. Democratic less-developed countries cause global deforestation. *International Forestry Review* 14(3): 299-313.
- Larjavaara, M. & Muller-Landau, H.C. Still rethinking the value of high wood density. *American Journal of Botany* 99: 165-168.
- Larjavaara, M. & Muller-Landau, H.C. Temperature explains global variation in old-growth forest biomass. *Global Ecology and Biogeography* 21(10): 998-1006.
- Laturi, J., Lintunen, J. & Niinistö, S. Specification of a size-classified matrix model: the effects on growth predictions and economically optimal harvesting regimes. *Forest Science* 58(6): 592-605.
- Lauri, P., Kallio, A.M.I. & Schneider, U.A. Price of CO<sub>2</sub> emissions and use of wood in Europe. *Forest Policy and Economics* 15: 123-131.
- Laurén, A., Lappalainen, M., Saari, P., Kukkonen, J.V.K., Koivusalo, H., Piirainen, S., Setälä, H., Sarjala, T., Bylund, D., Heinonen, J., Nieminen, M., Palviainen, M., Launiainen, S. & Finér, L. Nitrogen and carbon dynamics and the role of enchytraeid worms in decomposition of L, F and H layers of boreal mor. *Water,*

Air, and Soil Pollution 223(7): 3701-3719.

Le Tortorec, E., Helle, S., Suorsa, P., Sirkiä, P., Huhta, E., Nivala, V. & Hakkarainen, H. Feather growth bars as a biomarker of habitat fragmentation in the Eurasian treecreeper. *Ecological Indicators* 15(1): 72-75.

Lee, J., Li, Q., Tyrväinen, L., Tsunetsugu, Y., Park, B.-J., Kagawa, T. & Miyazaki, Y. Nature therapy and preventive medicine. In: Maddock, J. (ed.). *Public Health - Social and Behavioral Health*. InTech, p. 325-350.

Lindholm, M. & Jalkanen, R. Subcentury scale variability in height-increment and tree-ring width chronologies of Scots pine since AD 745 in northern Fennoscandia. *Holocene* 22(5): 571-577.

Lindholm, M., Aalto, T., Grudd, H., McCarroll, D., Ogurtsov, M. & Jalkanen, R. Common temperature signal in four well-replicated tree growth series from northern Fennoscandia. *Journal of Quaternary Science* 27(8): 828-834.

Luoranen, J. & Rikala, R. Early season short-day treatment did not affect the field performance of *Pinus sylvestris* container seedlings in summer planting. *Scandinavian Journal of Forest Research* 27(5): 420-423.

Luoranen, J. & Viiri, H. Soil preparation reduces pine weevil (*Hylobius abietis* (L.)) damage on both peatland and mineral soil sites one year after planting. *Silva Fennica* 46(1): 151-161.

Luoranen, J., Riikonen, J., Sutinen, S. & Rikala, R. Frost hardiness, carbohydrates and bud morphology of *Picea abies* seedlings after different lengths of freezer storage. *Scandinavian Journal of Forest Research* 27(5): 414-419.

Läänelaid, A., Helama, S., Kull, A., Timonen, M. & Jaagus, J. Common growth signal and spatial synchrony of the chronologies of tree-rings from pines in the Baltic Sea region over the last nine centuries. In: Helama, S. & Devall, M.S. (eds.). *World Dendro 2010. Dendrochronologia* 30(2): 147-155.

Macias-Fauria, M., Grinsted, A., Helama, S. & Holopainen, J. Persistence matters: Estimation of the statistical significance of paleoclimatic reconstruction statistics from autocorrelated time series. In: Helama, S. & Devall, M.S. (eds.). *World Dendro 2010. Dendrochronologia* 30(2): 179-187.

Maljanen, M., Shurpali, N., Hytönen, J., Mäkiranta, P., Aro, L., Potila, H., Laine, J. Li, C. & Martikainen, P.J. Afforestation does not reduce nitrous oxide emissions from peat soils drained for cultivation or peat extraction. *Biogeochemistry* 108: 199-218.

Martin-Garcia, J., Müller, M.M. & Diez, J.J. ITS-based comparison of endophytic mycota in twigs of native *Populus nigra* and cultivated *P. x euramericana* (cv. I-214) stands in Northern Spain. *Annals of Forest Science* 69: 49-57.

Miettinen, J., Ollikainen, M., Finér, L., Koivusalo, H., Laurén, A. & Valsta, L. Diffuse load abatement with biodiversity co-benefits: the optimal rotation age and buffer zone size. *Forest Science* 58(4): 342-352.

Moilanen, M., Hytönen, J. & Leppälä, M. Application of wood ash accelerates soil respiration and tree growth on drained peatland. *European Journal of Soil Science* 63: 467-475.

Muinsonen, E., Parikka, H., Pokharel, Y.P., Shrestha, S.M. & Eerikäinen, K. Utilizing a multi-source forest inventory technique, MODIS data and Landsat TM images in the production of forest cover and volume maps for the Terai physiographic zone in Nepal. *Remote Sensing* 4(12): 3920-3947.

Murtomaa-Hautala, M., Korkalainen, M., Pelkonen, O., Hegde, N., Pohjanvirta, R., Huitu, O., Henttonen, H., Rautio, A., Viitala, P. & Viluksela, M. Significant interspecies differences in induction profiles of hepatic CYP enzymes by TCDD in bank and field voles. *Environmental Toxicology and Chemistry* 31: 663-671.



- Muukkonen, P., Angervuori, A., Virtanen, T., Kuparinen, A. & Merilä, J. Loss and fragmentation of Siberian jay (*Perisoreus infaustus*) habitats. *Boreal Environment Research* 17(1): 59-71.
- Mäkelä, A., del Río, M., Hynynen, J., Hawkins, M.J., Reyer, C., Soares, P., van Oijen, M. & Tomé, M. Using stand-scale forest models for estimating indicators of sustainable forest management. *Forest Ecology and Management* 285: 164-178.
- Mäkinen, H. & Hynynen, J. Predicting wood and tracheid properties of Scots pine. *Forest Ecology and Management* 279: 11-20.
- Mäkiranta, P., Laiho, R., Penttilä, T. & Minkkinen, K. The impact of logging residue on soil GHG fluxes in a drained peatland forest. *Soil Biology & Biochemistry* 48: 1-9.
- Männistö, M.K., Rawat, S., Starovoytov, V. & Häggblom, M.M. *Granulicella arctica* sp. nov., *Granulicella mallensis* sp. nov., *Granulicella tundricola* sp. nov. and *Granulicella sapmiensis* sp. nov., novel acidobacteria from tundra soil. *International Journal of Systematic and Evolutionary Microbiology* 62: 2097-2106.
- Nakano, A., Ikeno, H., Kimura, T., Sakamoto, H., Dannoura, M., Hirano, Y., Makita, N., Finér, L. & Ohashi, M. Automated analysis of fine-root dynamics using a series of digital images. *Journal of Plant Nutrition and Soil Science* 175: 775-783.
- Natarajan, K., Leduc, S., Pelkonen, P., Tomppo, E. & Dotzauer, E. Optimal locations for methanol and CHP production in Eastern Finland. *Bioenergy Research* 5: 412-423.
- Nerg, A., Uusivuori, J., Mikkola, J., Neuvonen, M. & Sievänen, T. Visits to national parks and hiking areas: a panel data analysis of their socio-demographic, economic and site quality determinants. *Tourism Economics* 18(1): 77-93.
- Neuvonen, S., Saikkonen, T., Sundström, L., Punttila, P., Risch, A.C., Domisch, T., Niemelä, P., Kilpeläinen, J., Ohashi, M. & Finér, L. Stand type is more important than red wood ant abundance for the structure of ground-dwelling arthropod assemblages in managed boreal forests. *Agricultural and Forest Entomology* 14: 295-305.
- Nielsen, J.K. & Helama, S. Christian Theodor Vaupell, a Danish 19th century naturalist and a pioneering developer of the Quaternary geoscience. *History of Geo- and Space Sciences* 3(2): 143-150.
- Niemistö, P., Korpunen, H., Laurén, A., Salomäki, M. & Uusitalo, J. Impact and productivity of harvesting while retaining young understorey spruces in final cutting of downy birch. *Silva Fennica* 46(1): 81-97.
- Niskanen, I., Heikkinen, J., Mikkonen, J., Harju, A., Heräjärvi, H., Venäläinen, M. & Peiponen, K.-E. Detection of effective refractive index of thermally modified Scots pine by immersion liquid method. *Journal of Wood Science* 58: 46-50.
- Nissinen, R.M., Männistö, M.K. & van Elsas, J.D. Endophytic bacterial communities in three arctic plants from low arctic fell tundra are cold-adapted and host-plant specific. *FEMS Microbiology Ecology* 82(2): 510-522.
- Närhi, P., Gustavsson, N., Sutinen, M.-L., Mikkola, K. & Sutinen, R. Long-term effect of site preparation on soil quality in Tuntsa, Finnish Lapland. *Geoderma* 192: 1-6.
- Närhi, P., Räisänen, M.-L., Sutinen, M.-L. & Sutinen, R. Effect of tailings on wetland vegetation in Rautuvaara, a former iron-copper mining area in northern Finland. *Journal of Geochemical Exploration* 116-117: 60-65.
- Ogurtsov, M., Lindholm, M. & Jalkanen, R. Solar activity, space weather and the Earth's climate. In:

Hannachi, A. (ed.). Climate variability - some aspects, challenges and prospects. InTech, p. 39-72.

Ogurtsov, M., Lindholm, M. & Jalkanen, R. Background solar irradiance and the climate of the Earth in the end of the 20th century. *Atmospheric and Climate Sciences* 2(2): 191-195.

Ohashi, M., Domisch, T., Finér, L., Jurgensen, M.F., Sundström, L., Kilpeläinen, J., Risch A.C. & Niemelä, P. The effect of stand age on CO<sub>2</sub> efflux from wood ant (*Formica rufa* group) mounds in boreal forests. *Soil Biology & Biochemistry* 52: 21-28.

Ojanen, P., Minkkinen, K., Lohila, A., Badorek, T. & Penttilä, T. Chamber measured soil respiration: A useful tool for estimating the carbon balance of peatland forest soils? *Forest Ecology and Management* 277: 132-140.

Olsson, B.A., Hansson, K., Persson, T., Beuker, E. & Helmisaari, H.-S. Heterotrophic respiration and nitrogen mineralisation in soils of Norway spruce, Scots pine and silver birch stands in contrasting climates. *Forest Ecology and Management* 269: 197-205.

Ovaskainen, V., Neuvonen, M. & Pouta, E. Modelling recreation demand with respondent-reported driving cost and stated cost of travel time: A Finnish case. *Journal of Forest Economics* 18(4): 303-317.

Palosuo, T., Foereid, B., Svensson, M., Shurpali, N., Lehtonen, A., Herbst, M., Linkosalo, T., Ortiz, C., Todorovic, G.R., Marcinkonis, S., Li, C. & Jandl, R. A multi-model comparison of soil carbon assessment of a coniferous forest stand. *Environmental Modelling and Software* 35: 38-49.

Palviainen, M. & Finér, L. Estimation of nutrient removals in stem-only and whole-tree harvesting of Scots pine, Norway spruce, and birch stands with generalized nutrient equations. *European Journal of Forest Research* 131: 945-964.

Pearson, M., Saarinen, M., Minkkinen, K., Silvan, N. & Laine, J. Short-term impacts of soil preparation on greenhouse gas fluxes: A case study in nutrient-poor, clearcut peatland forest. *Forest Ecology and Management* 283: 10-26.

Peltoniemi, K., Straková, P., Fritze, H., Iráizoz, P.A., Pennanen, T. & Laiho, R. How water-level drawdown modifies litter decomposing fungal and actinobacterial communities in boreal peatlands. *Soil Biology & Biochemistry* 51: 20-34.

Peltoniemi, M., Pulkkinen, M., Kolari, P., Duursma, R.A., Montagnani, L., Wharton, S., Lagergren, F., Takagi, K., Verbeeck, H., Christensen, T., Vesala, T., Falk, M., Loustau, D. & Mäkelä, A. Does canopy mean nitrogen concentration explain variation in canopy light use efficiency across 14 contrasting forest sites? *Tree Physiology* 32: 200-218.

Peltoniemi, M.S., Duursma, R.A. & Medlyn, B.E. Co-optimal distribution of leaf nitrogen and hydraulic conductance in plant canopies. *Tree Physiology* 32: 510-519.

Petersson, H., Holm, S., Ståhl, G., Alger, D., Fridman, J., Lehtonen, A., Lundström, A. & Mäkipää, R. Individual tree biomass equations or biomass expansion factors for assessment of carbon stock changes in living biomass - A comparative study. *Forest Ecology and Management* 270: 78-84.

Petrokofsky, G., Kanamaru, H., Achard, F., Goetz, S., Joosten, H., Holmgren, P., Lehtonen, A., Menton, M., Pullin, A. & Wattenbach, M. Comparison of methods for measuring and assessing carbon stocks and carbon stock changes in terrestrial carbon pools. How do the accuracy and precision of current methods compare? A systematic review protocol. *Environmental Evidence* 1(6): 1-21.

Petäistö, R.-L. & Heiskanen, J. Needle damage development in Norway spruce seedlings as affected by humidity, temperature, and gray mold: a preliminary study. *ISRN Forestry* 2012. 9 p.

- Petäistö, R.-L., Lilja, A., Ruhanen, H., Rytönen, A. & Hantula, J. Effects of light and winter storage conditions on Norway spruce seedlings with special emphasis on the occurrence of *Gibberella avenacea*. *Baltic Forestry* 18(1): 73-82.
- Pirkkalainen, K., Peura, M., Leppänen, K., Salmi, A., Meriläinen, A., Saranpää, P. & Serimaa, R. Simultaneous X-ray diffraction and X-ray fluorescence microanalysis on secondary xylem of Norway spruce. *Wood Science and Technology* 46: 1113-1125.
- Plyusnina, A., Razzauti, M., Sironen, T., Niemimaa, J., Vapalahti, O., Vaheri, O., Henttonen, H. & Plyusnin, A. Analysis of complete Puumala virus genome, Finland. *Emerging Infectious Diseases* 18(12): 2070-2072.
- Posada, J.M., Sievänen, R., Messier, C., Perttunen, J., Nikinmaa, E. & Lechowicz, M.J. Contributions of leaf photosynthetic capacity, leaf angle and self-shading to the maximization of net photosynthesis in *Acer saccharum*: a modelling assessment. *Annals of Botany* 110(3): 731-741.
- Putkinen, A., Larmola, T., Tuomivirta, T., Siljanen, H., Bodrossy, L., Tuittila, E.-S. & Fritze, H. Water dispersal of methanotrophic bacteria maintains functional methane oxidation in *Sphagnum* mosses. *Frontiers in Terrestrial Microbiology* 3: 15.
- Pyhtilä, H., Perämäki, P., Piispanen, J., Niemelä, M., Suoranta, T., Starr, M., Nieminen, T., Kantola, M., Ukonmaanaho, L. Development and optimization of a method for detecting low mercury concentrations in humic-rich natural water samples using a CV-ICP-MS technique. *Microchemical Journal* 103: 165-169.
- Rabinowitsch-Jokinen, R., Laaka-Lindberg, S. & Vanha-Majamaa, I. Immediate effects of logging, mounding, and removal of logging residues on epixylic species in managed boreal Norway spruce stands in Southern Finland. *Journal of Sustainable Forestry* 31(3): 205-229.
- Rajala, T., Peltoniemi, M., Pennanen, T. & Mäkipää, R. Fungal community dynamics in relation to substrate quality of decaying Norway spruce (*Picea abies* [L.] Karst.) logs in boreal forests. *FEMS Microbiology Ecology* 81(2): 494-505.
- Rantakari, M., Lehtonen, A., Linkosalo, T., Tuomi, M., Tamminen, P., Heikkinen, J., Liski, J., Mäkipää, R., Ilvesniemi, H. & Sievänen, R. The Yasso07 soil carbon model - Testing against repeated soil carbon inventory. *Forest Ecology and Management* 286: 137-147.
- Rantala, M., Hujala, T. & Kurttila, M. Measuring and monitoring socio-cultural sustainability in the action of forest biodiversity cooperation networks. *Silva Fennica* 46(3): 441-459.
- Rantavaara, A., Vetikko, V., Raitio, H. & Aro, L. Seasonal variation of the <sup>137</sup>Cs level and its relationship with potassium and carbon levels in conifer needles. *Science of the Total Environment* 441: 194-208.
- Rautio, P., Bergvall, U.A., Tuomi, J., Kesti, K. & Leimar, O. Food selection by herbivores and neighbourhood effects in the evolution of plant defences. *Annales Zoologici Fennici* 49(1-2): 45-57.
- Rawat, S., Männistö, M.K., Bromberg, Y. & Häggblom, M. Comparative genomic and physiological analysis provides insights into the role of Acidobacteria in organic carbon utilization in Arctic tundra soils. *FEMS Microbiology Ecology* 82(2): 341-355.
- Rawat, S.R., Männistö, M.K., Starovoytov, V., Goodwin, L., Nolan, M., Hauser, L., Land, M., Walston Davenport, K., Woyke, T. & Häggblom, M.M. Complete genome sequence of *Terriglobus saanensis* type strain SP1PR4T, an Acidobacteria from tundra soil. *Standards in Genomic Sciences* 7(1): 59-69.
- Razzauti, M., Plyusnina, A., Niemimaa, J., Henttonen, H. & Plyusnin, A. Co-circulation of two Puumala hantavirus lineages in Latvia: A Russian lineage described previously and a novel Latvian lineage. *Journal of Medical Virology* 84: 314-318.

- Repo, T., Cao, Y., Silvennoinen, R. & Ozier-Lafontain, H. Electrical impedance spectroscopy and roots. In: Mancuso, S. (ed.). *Measuring roots - An updated approach*. Springer Verlag, Heidelberg Berlin. p. 25-49.
- Reunanen, P., Fall, A. & Nikula, A. Spatial graphs as templates for habitat networks in boreal landscapes. *Biodiversity and Conservation* 21(14): 3569-3584.
- Riikonen, J., Kontunen-Soppela, S., Ossipov, V., Tervahauta, A., Tuomainen, M., Oksanen, E., Vapaavuori, E., Heinonen, J. & Kivimäenpää, M. Needle metabolome, freezing tolerance and gas exchange in Norway spruce seedlings exposed to elevated temperature and ozone concentration. *Tree Physiology* 32: 1102-1112.
- Rousi, M., Possen, B.J.H.M., Hagqvist, R. & Thomas, B.R. From the Arctic Circle to the Canadian prairies - a case study of silver birch acclimation capacity. *Silva Fennica* 46(3): 355-364.
- Routa, J., Kellomäki, S. & Peltola, H. Impacts of intensive management and landscape structure on timber and energy wood production and net CO<sub>2</sub> emissions from energy wood use of Norway spruce. *BioEnergy Research* 5(1): 106-123.
- Routa, J., Kellomäki, S. & Strandman, H. Effects of forest management on total biomass production and CO<sub>2</sub> emissions from use of energy biomass of Norway spruce and Scots pine. *BioEnergy Research* 5(3): 733-747.
- Rytkönen, A., Lilja, A. & Hantula, J. PCR-DGGE method for in planta detection and identification of *Phytophthora* species. *Forest Pathology* 42(1): 22-27.
- Rytkönen, A., Lilja, A., Vercauteren, A., Sirkiä, S., Parikka, P., Soukainen, M. & Hantula, J. Identity and potential pathogenicity of *Phytophthora* species found from symptomatic *Rhododendron* plants in a Finnish nursery. *Canadian Journal of Plant Pathology* 34(2): 255-267.
- Saarsalmi, A., Smolander, A., Kukkola, M., Moilanen, M. & Saramäki, J. 30-year effects of wood ash and nitrogen fertilization on soil chemical properties, soil microbial processes and stand growth in a Scots pine stand. *Forest Ecology and Management* 278: 63-70.
- Sarkkola, S., Hökkä, H., Ahti, E., Nieminen, M. & Koivusalo, H. Depth of water table prior to ditch network maintenance is a key factor for tree growth response. *Scandinavian Journal of Forest Research* 27(7): 649-658.
- Sarkkola, S., Nieminen, M., Koivusalo, H., Laurén, A., Kortelainen, P., Mattsson, T., Palviainen, M., Piirainen, S., Starr, M. & Finér, L. Trends in concentrations and export of nitrogen in boreal forest streams. *Boreal Environment Research* 17: 85-101.
- Seliverstov, A., Gerasimov, Y., Sukhanov, Y., Syunev, V. & Katarov, V. Evaluation of effectiveness of the wood chips production in timber terminal (in Russian). *Tractors and Agricultural Machinery* 2012(8): 25-27.
- Seliverstov, A., Sokolov, A., Syunev, V. & Gerasimov, Y. Impact of wood harvesting systems on round wood quality. In: *Special Issue Wood Harvesting and Logistics* (in Russian). *Resource and Energy Economics* 9(2): 94-105.
- Seo, J.-W., Aalto, T., Jalkanen, R., Eckstein, D., Schmitt, U. & Fromm, J. Bud break and intra-annual height growth dynamics of saplings and pole-stage trees of Scots pine: case study for a boreal forest in northern Finland. *Baltic Forestry* 18(1): 144-149.
- Seo, J.-W., Eckstein, D. & Jalkanen, R. Screening various variables of cellular anatomy of Scots pines in subarctic Finland for climatic signals. *IAWA Journal* 33(4): 417-429.
- Shorohova, E., Ignatyeva, O., Kapitsa, O., Kauhanen, H., Kuznetsov, A. & Vanha-Majamaa, I. Stump decomposition rates after clear-felling with and without prescribed burning in southern and northern boreal

forests in Finland. *Forest Ecology and Management* 263: 74-84.

Silvan, N., Silvan, K., Väisänen, S., Soukka, R. & Laine, J. Excavation-drier method of energy-peat extraction reduces long-term climatic impact. *Boreal Environment Research* 17: 263-276.

Sinkkonen, A., Somerkoski, E., Paaso, U., Holopainen, J.K., Rousi, M. & Mikola, J. Genotypic variation in yellow autumn leaf colours explains aphid load in silver birch. *New Phytologist* 195(2): 461-469.

Sirkkiä, S., Lehtomäki, J., Lindén, H., Tomppo, E. & Moilanen, A. Defining spatial priorities for capercaillie *Tetrao urogallus* lekking landscape conservation in south-central Finland. *Wildlife Biology* 18: 337-353.

Smolander, A., Kanerva, S., Adamczyk, B. & Kitunen, V. Nitrogen transformations in boreal forest soils - does composition of plant secondary compounds give any explanations? (Marschner review article). *Plant and Soil* 350: 1-26.

Sokolov, A., Syuneyev, V., Gerasimov, Y. & Karjalainen, T. Optimisation of wood logistics. In Special Issue Wood Harvesting and Logistics (in Russian). *Resources and Technology* 9(2): 117-128.

Stark, S., Eskelinen, A. & Männistö, M.K. Regulation of microbial community composition and activity by soil nutrient availability, soil pH, and herbivory in the tundra. *Ecosystems* 15: 18-33.

Stark, S., Hilli, S., Willför, S., Smeds, A.I., Reunanen, M., Penttinen, M. & Hautajärvi, R. Composition of lipophilic compounds and carbohydrates in the accumulated plant litter and soil organic matter in boreal forests. *European Journal of Soil Science* 63: 65-74.

Straková, P., Penttilä, T., Laine, J. & Laiho, R. Disentangling direct and indirect effects of water level drawdown on above- and belowground plant litter decomposition: Consequences for accumulation of organic matter in boreal peatlands. *Global Change Biology* 18(1): 322-335.

Ståhl, G., Cienciala, E., Chinci, G., Lanz, A., Vidal, C., Winter, S., McRoberts, R.E., Rondeux, J., Schadauer, K. & Tomppo, E. Bridging national and reference definitions for harmonizing forest statistics. *Forest Science* 58(3): 214-223.

Sukhanov Y., Seliverstov A., Syuneyev V. & Gerasimov Y. Machine systems for production of fuel chips from woody biomass using full-tree harvesting method (in Russian). *Tractors and Agricultural Machinery* 1: 7-13.

Sutinen, R., Närhi, P., Middleton, M., Hänninen, P., Timonen, M. & Sutinen, M.-L. Advance of Norway spruce (*Picea abies*) onto mafic Lommoltunturi fell in Finnish Lapland during the last 200 years. *Boreas* 41: 367-378.

Sutinen, S., Partanen, J., Viherä-Aarnio, A. & Häkkinen, R. Development and growth of primordial shoots in Norway spruce buds before visible bud burst in relation to time and temperature in the field. *Tree Physiology* 32(8): 987-997.

Suuriniemi, I., Matero, J., Hänninen, H. & Uusivuori, J. Factors affecting enlargement of family forest holdings. *Silva Fennica* 46(2): 253-266.

Svedström, K., Lucenius, J., Van den Bulcke, J., Van Loo, D., Immerzeel, P., Suuronen, J.-P., Brabant, L., Van Acker, J., Saranpää, P., Fagerstedt, K., Mellerowicz, E. & Serimaa, R. Hierarchical structure of juvenile hybrid aspen xylem revealed using X-ray scattering and microtomography. *Trees - Structure and Function* 26: 1793-1804.

Tadin, A., Turk, N., Korva, M., Margaletic, J., Beck, R., Vucelja, M., Habus, J., Svoboda, P., Avsic Zupanc, T., Henttonen, H. & Markotic, A. Multiple co-infections of rodents with hantaviruses, *Leptospira*, and *Babesia* in Croatia. *Vector-Borne and Zoonotic Diseases* 12: 388-392.

- Tamminen, P., Saarsalmi, A. & Kukkola, M. Amount of boron in Norway spruce stands in eastern Finland. *Forest Ecology and Management* 269(1): 92-98.
- Tamminen, P., Saarsalmi, A., Smolander, A., Kukkola, M. & Helmisaari, H.-S. Effects of logging residue harvest in thinnings on amounts of soil carbon and nutrients in Scots pine and Norway spruce stands. *Forest Ecology and Management* 269(1): 31-38.
- Tapiainen, T., Jauhiainen, H., Jaakola, L., Salo, J., Sevander, J., Ikäheimo, I., Pirttilä, A.M., Hohtola, A. & Uhari, M. Biofilm formation and virulence of uropathogenic *Escherichia coli* in urine after consumption of cranberry-lingonberry juice. *European Journal of Clinical Microbiology and Infectious Diseases* 32. 8 p.
- Tarvainen, O., Hamberg, L., Ohenoja, E., Strömmer, R., & Markkola, A. Responses of fungal and plant communities to partial humus removal in mid-boreal N-enriched forests. *Journal of Environmental Management* 108: 120-129.
- Tian, Q.H., Zhou, X.J., Gou, X.H., Zhao, P., Fan, Z.X. & Helama, S. Analysis of reconstructed annual precipitation from tree-rings for the past 500 years in the middle Qilian Mountain. *Science China Earth Sciences* 55(5): 770-778.
- Tikkanen, O.-P., Matero, J., Mönkkönen, M., Juutinen, A. & Kouki, J. To thin or not to thin: bio-economic analysis of two alternative practices to increase amount of coarse woody debris in managed forests. *European Journal of Forest Research* 131(5): 1411-1422.
- Tomppo, E.O. & Schadauer, K. Harmonization of National Forest Inventories in Europe: Advances under COST Action E43. *Forest Science* 58(3): 191-200.
- Tomter, S.M., Gasparini, P., Gschwantner, T., Hennig, P., Kulbokas, G., Kuliesis, A., Polley, H., Robert, N., Rondeux, J., Tabacchi, G. & Tomppo, E. Establishing bridging functions for harmonizing growing stock estimates: Examples from European National Forest Inventories. *Forest Science* 58(3): 224-235.
- Turtiainen, M. & Nuutinen, T. Evaluation of information on wild berry and mushroom markets in European countries. *Small-scale Forestry* 11(1): 131-145.
- Uotila, K., Rantala, J. & Saksa, T. Estimating the need for early cleaning in Norway spruce plantations in Finland. *Silva Fennica* 46(5): 683-693.
- Uusitalo, J., Kaakkurivaara, T. & Haavisto, M. Utilizing airborne laser scanning technology in predicting bearing capacity of peatland forest. *Croatian Journal of Forest Engineering* 33(2): 329-337.
- Vaario, L.-M., Heinonsalo, J., Spetz, P., Pennanen, T., Heinonen, J., Tervahauta, A. & Fritze, H. The ectomycorrhizal fungus *Tricholoma matsutake* is a facultative saprotroph in vitro. *Mycorrhiza* 22(6): 409-418.
- Vainio, E.J., Hyder, R., Aday, G., Hansen, E., Piri, T., Dogmus-Lehtijärvi, T., Lehtijärvi, A., Korhonen, K. & Hantula, J. Population structure of a novel putative mycovirus infecting the conifer root-rot fungus *Heterobasidion annosum sensu lato*. *Virology* 422(2): 366-376.
- Valentine, H.J., Mäkelä, A., Green, E.J., Amateis, R.L., Mäkinen, H. & Ducey, M.J. Models relating stem growth to crown length dynamics: application to loblolly pine and Norway spruce. *Trees - Structure and Function* 26(2): 469-478.
- Vauhkonen, J., Ene, L., Gupta, S., Heinzl, J., Holmgren, J., Pitkänen, J., Solberg, S., Wang, Y., Weinacker, H., Hauglin, K.M., Lien, V., Packalén, P., Gobakken, T., Koch, B., Naesset, E., Tokola, T. & Maltamo, M. Comparative testing of single-tree detection algorithms under different types of forest. *Forestry* 85(1): 27-40.
- Viiri, H. & Eerikäinen, K. Red-listed *Aradus laeviusculus* (Hemiptera: Aradidae) inhabits burnt restoration

sites in the Koli National Park, North Karelia, Finland. *Entomologica Fennica* 23(2): 63-68.

Voutilainen, L., Savola, S., Kallio, E.R., Laakkonen, L., Vaheri, A., Vapalahti, O. & Henttonen, H. Environmental change and disease dynamics: Effects of intensive forest management on Puumala hantavirus infection in boreal bank vole populations. *PLoS ONE* 7(6): e39452.

Vuosku, J., Suorsa, M., Ruottinen, M., Sutela, S., Muilu-Mäkelä, R., Julkunen-Tiitto, R., Sarjala, T., Neubauer, P. & Häggman, H. Polyamine metabolism during exponential growth transition in Scots pine embryogenic cell culture. *Tree Physiology* 32: 1274-1287.

Wall, A. Risk analysis of effects of whole-tree harvesting on site productivity. *Forest Ecology and Management* 282: 175-184.

Ylisirniö, A.-L., Penttilä, R., Berglund, H., Hallikainen, V., Isaeva, L., Kauhanen, H., Koivula, M. & Mikkola, K. Dead wood and polypore diversity in natural post-fire succession forests and managed stands - Lessons for biodiversity management in boreal forests. *Forest Ecology and Management* 286: 16-27.

Zubizarreta-Gerendiain, A., Gort-Oromi, J., Mehtätalo, L., Peltola, H., Venäläinen, A. & Pulkkinen, P. Effects of cambial age, clone and climatic factors on ring width and ring density in Norway spruce (*Picea abies*) in southeastern Finland. *Forest Ecology and Management* 263(1): 9-16.

van Ooik, T., Rantala, M.J., Salminen, J.-P., Yang, S., Neuvonen, S. & Ruuhola, T. The effects of simulated acid rain and heavy metal pollution on the mountain birch-autumnal moth interaction. *Chemoecology* 22: 251-262.

---

## KOTIMAISET REFEROIDUT JULKAISUT 2012

Antikainen, J. New techniques for spectral image acquisition and analysis. Publications of the University of Eastern Finland. Dissertations in Forestry and Natural Sciences 73. 69 p.

Haahti, K., Koivusalo, H., Hökkä, H., Nieminen, M. & Sarkkola, S. Vedenpinnan syvyyden spatiaaliseen vaihteluun vaikuttavat tekijät ojitetussa suometsikössä Pohjois-Suomessa. *Suo - Mires and Peat* 63(3-4): 107-121.

Holopainen, J. & Helama, S. Suomen keskiajan kivikirkot pikku jääkauden kourissa. *Alue ja Ympäristö* 41(1): 108-112.

Härkönen, S. Estimating forest growth and carbon balance based on climate-sensitive forest growth model and remote sensing data. *Dissertationes Forestales* 138. 56 p.

Höglund, H., Hujala, T., Pykäläinen, J. & Mehtätalo, L. Metsikkökohtaiset käsittelyvaihtoehdot metsänomistajan oppimisen ja päätöksenteon tukena. *Metsätieteen aikakauskirja* 4/2012: 239-257.

Kivimaa, P., Huttunen, S., Hildén, M., Laturi, J., Lehtonen, H., Pohjola, J., Uusivuori, J., & Virtanen, Y. Ilmastopolitiikan ja muun yhteiskuntapolitiikan koherenssi. *Suomen ympäristö - Finnish environment - Miljön i Finland* 34/2012. 58 s.

Kojola, S. & Penttilä, T. Harvennusten ajoittaminen ojitetuilla soilla - metsiköittäin vai kunnostusojituksen yhteydessä kerralla kuntoon? (Summary: Timing of thinnings in drained peatland stands). *Suo - Mires and Peat* 63(2): 45-55.

Laitila, J. Methodology for choice of harvesting system for energy wood from early thinning. *Dissertationes Forestales* 143. 68 p.

Lappi, H. Production of hydrocarbon-rich biofuels from extractives-derived materials. Academic dissertation. Department of Chemistry, University of Jyväskylä, Research Report Series 158. 111 p.

Mäkiranta, P. Heterotrophic soil respiration in drained peatlands: Abiotic drivers, and changes after clearfelling and afforestation. *Dissertationes Forestales* 140. 40 p.

Pykäläinen, J. & Hujala, T. Ennakointi osana alueellista metsäohjelmaa. *Metsätieteen aikakauskirja* 2/2012: 71-86.

Salomäki, M., Niemistö, P. & Uusitalo, J. Ensiharvennuksen toteutusvaihtoehdot ja niiden vaikutukset männikön tuotokseen ja kasvatuksen kannattavuuteen ojitetuilla turvemaidilla - simulointitutkimus. *Metsätieteen aikakauskirja* 3/2012: 163-178.

Siitonen, J., Penttilä, R. & Ihalainen, A. METSO-ohjelman uusien pysyvien ja määräaikaisten suojelualueiden ekologinen laatu Uudenmaan alueella. *Metsätieteen aikakauskirja* 4/2012: 259-283.

Smolander, M., Koivusalo, H., Hökkä, H., Laurén, A., Sarkkola, S. & Nieminen, M. Sateen määränpää suometsikössä. *Vesitalous* 2012(1): 44-48.

Vapalahti, O., Ruuhela, R. & Henttonen, H. Uudet infektioaudit Suomessa - ilmastonmuutosko syynä? *Duodecim* 128: 1381-1387.

Virkkula, O., Hujala, T. & Hokajärvi, R. 2012. Asiakaslähtöisyyden ilmeneminen metsäneuvontakeskustelussa. Julkaisussa: Atjonen, P. (toim.). *Oppiminen ajassa - kasvatustulevaisuuteen*. Joensuun vuoden 2011 kasvatustieteen päivien parhaat esitelmät artikkeleina. *Kasvatusalan tutkimuksia* 61: 65-79.