

Heli Peltola

A. Peer-reviewed scientific articles (226)

226. Muhonen, O., Peltola, H., Lauren, A., Ikonen, V-P., Nevalainen, J., Pikkarainen L., Kilpeläinen, A., Launiainen, S., Palviainen, M. 2025. Spatial evenness of fertilization and short-term volume growth responses of Scots pine and Norway spruce to fertilization intensity. *Silva Fennica*, in print.
225. Simon, D-C., Lyytikäinen-Saarenmaa, P., Pelto-Arvo, M., Tuviala, J., Kosunen, M., Honkavaara, E., Näsi, R., Tikkanen, O-P., Kilpeläinen, A., Peltola, H. 2025. Infestation symptoms as indicators of a sustained bark beetle outbreak in conserved and managed Norway spruce forests in south-eastern Finland. *European Journal of Forest Research*, in print (Preprint in Research Square 2024, DOI: 10.21203/rs.3.rs-5355177/v).
224. Jetsonen, J. Laurén, A., Peltola, H., Laurén, K., Launiainen, S., Palviainen, M. 2025. Volume growth responses of Scots pine and Norway spruce to nitrogen fertilization: quantitative synthesis of fertilization experiments in Finland. *Silva Fennica* 59(1), id 24041. <https://doi.org/10.14214/sf.24041>
223. Kemppainen, K., Kärhä, K., Laitila, J., Sairanen, A., Kankaanhuhta, V., Viiri, H., Peltola, H. 2025. Evaluation of the productivity and costs of excavator-based mechanized tree planting in Finland based on automated data collection. *Silva Fennica* 59(1), id 25004. <https://doi.org/10.14214/sf.25004>
222. Kivimäenpää, M., Virjamo, V., Nissinen, K., Pikkarainen, L., Ghimire, R.P., Julkunen-Tiitto, R., Peltola, H. 2025. Responses of needle terpene concentrations and characteristics of resin canals to different warming treatments in Scots pine and Norway spruce seedlings grown in a field experiment. *Canadian Journal of Forest Research* 55: 1-9. <https://doi.org/10.1139/cjfr-2024-0153>
221. Seipulis, A., Gardiner, B., Peltola, H., Nicoll, B., Rust, S., Matisons, R., Elferts, D., Jansons, A. 2024. Geographic variation in resistance of Scots pine (*Pinus sylvestris* L.) to wind loading across different wind environments in Europe. *Forest Ecology and Management* 571, id 122237.
220. Palviainen, M., Pumpanen, J., Mosquera, V., Maher Hasselquist, H., Laudon, H., Ostonen, I., Kull, A., Renou Wilson, F., Peltomaa, E., Könönen, M., Launiainen, S., Peltola, H., Ojala, A., Laurén, A. 2024. Extending the SUSI Peatland simulator to include dissolved organic carbon formation, transport and biodegradation - Proper water management reduces lateral carbon fluxes and improves carbon balance. *Science of the Total Environment* 950, id 175173.
219. Junttila, S., Blomqvist, M., Laukkanen, V., Heinaro, E., Polvivaara, A., O'Sullivan, H., Yrttimaa, T., Vastaranta, M., Peltola H. 2024. Significant increase in tree mortality in boreal forests in Southern Finland. *Forest Ecology and Management* 565, id 122020.
218. Petty, A., Senko, S., Strandman, H., Jyrkinen, E., Tikkanen, O-P., Kilpeläinen, A., Peltola, H. 2024. Effects of forest management intensity and climate change severity on forest growth, timber yield, carbon stocks, and the amount of dead wood in Scots pine, Norway spruce and silver birch stands in boreal conditions. *Canadian Journal of Forest Research* 54(9): 1032–1047.

217. Silvennoinen H., Pikkarainen L., Nakola, H., Koivula M., Tyrväinen L., Tikkanen J., Chambers P., Peltola, H. 2024. Consistency of video and photo surveys in measuring attractiveness of forest stands managed with varying intensities. *Silva Fennica* 58(3), id 23030.
216. Pulgarin Díaz, J. A. Melin, M., Ylioja, T., Lyytikäinen-Saarenmaa, P., Peltola, H., Tikkanen, O-P. 2024. Relationship between stand and landscape attributes and *Ips typographus* salvage loggings in Finland. *Silva Fennica* 58(3), id 23069.
215. Pikkarainen, L., Strandman H., Vento, E., Petty A., Tikkanen, O-P., Kilpeläinen, A., Peltola, H. 2024. Effects of forest conservation and management on timber, ecosystem carbon, dead wood and habitat suitability area in a boreal forest under climate change. *Silva Fennica* 58(2), id 23045.
214. Jetsonen, J., Laurén, A., Peltola, H., Muhonen, O., Nevalainen, J., Ikonen, V-P., Kilpeläinen, A., Tuittila, E-S., Männistö, E., Kokkonen, N., Palviainen, M. 2024. Effects of nitrogen fertilization on the ground vegetation cover and soil chemical properties in Scots pine and Norway spruce stands. *Silva Fennica* 58(1), id 23058.
213. Gopalakrishnan, R., Korhonen, L., Möttöus, M., Rautiainen, M., Hovi, A., Mehtätalo, L., Maltamo, M., Peltola, H., Packalen, P. 2023. Evaluation of a forest radiative transfer model using an extensive boreal forest inventory database. *Science of Remote Sensing* 8, id 100098.
212. Leinonen, A., Salmivaara, A., Palviainen, M., Finèr, L., Peltola, H., Laurèn, A. 2023. Identifying Nutrient Export Hotspots Using Spatially Distributed Nutrient Export Model in Boreal Forested Catchments. *Forests* 14(3), id 612.
211. Kellomäki, S., Strandman, H., Kirsikka-Aho, S., Kirschbaum, M. U. F., Peltola, H. 2023. Effects of thinning intensity and rotation length on albedo and carbon stock based radiative forcing in boreal Norway spruce stands. *Forestry: An International Journal of Forest Research*, id cpac058.
210. Hurmekoski, E., Kunttu, J., Heinonen, T., Pukkala, T., Peltola, H. 2023. Does expanding wood use in construction and textile markets contribute to climate change mitigation? *Renewable and Sustainable Energy Reviews* 174, id 113152.
209. Ruotsalainen, R., Pukkala, T., Ikonen, V-P., Packalen, P., Peltola, H. 2023. Mitigating the risk of wind damage at the forest landscape level by using stand neighbourhood and terrain elevation information in forest planning. *Forestry: An International Journal of Forest Research* 96(1): 121–134.
208. Pikkarainen L., Nissinen K., Prasad Ghimire R., Kivimäenpää M., Ikonen V-P., Kilpeläinen A., Virjamo V., Yu H., Kirsikka-Aho S., Salminen T., Hirvonen J., Vahimaa T., Luoranen J., Peltola H. 2022. Responses in growth and emissions of biogenic volatile organic compounds in Scots pine, Norway spruce and silver birch seedlings to different warming treatments in a controlled field experiment. *The Science of the Total Environment* 821, id 153277.
207. Hetemäki, L., Kangas, J., Asikainen, A., Jänis, J., Seppälä, J., Venäläinen, A., Peltola, H. 2022. The Way Forward: Management and Policy Actions. In: Hetemäki, L., Kangas, J., Peltola, H. (eds) *Forest Bioeconomy and Climate Change. Managing Forest Ecosystems*, vol 42. Springer. https://doi.org/10.1007/978-3-030-99206-4_14.

206. Kilpeläinen, A., Peltola, H. 2022. Carbon Sequestration and Storage in European Forests. In: Hetemäki, L., Kangas, J., Peltola, H. (eds) *Forest Bioeconomy and Climate Change. Managing Forest Ecosystems*, vol 42. Springer. https://doi.org/10.1007/978-3-030-99206-4_6.
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203. Díaz-Yáñez, O., Pukkala, T., Packalen, P., Lexer, M. J., Peltola, H. 2021. Multi-objective forestry increases the production of ecosystem services. *Forestry: An International Journal of Forest Research* 94(3): 386–394.
202. Kellomäki, S., Väisänen, H., Kirschbaum, M.U.F., Kirsikka-Aho, S., Peltola, H. 2021. Effects of different management options of Norway spruce on radiative forcing through changes in carbon stock and albedo. *Forestry: An International Journal of Forest Research* 94(4): 588–597.
201. Pikkarainen L., Luoranen J., Peltola H. 2021. Early Field Performance of Small-Sized Silver Birch and Scots Pine Container Seedlings at Different Planting Depths. *Forests* 12(5), id 519.
200. Sobuj, N., Nissinen, K., Virjamo, V., Salonen, A., Sivadasan, U., Randriamanana, T, Ikonen, V., Kilpeläinen, A., Julkunen-Tiitto, R., Nybakken, L., Mehtätalo, L., Peltola, H. 2021. Accumulation of phenolics and growth of dioecious *Populus tremula* (L.) seedlings over three growing seasons under elevated temperature and UVB radiation. *Plant Physiology and Biochemistry* 165: 114–122.
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197. Nissinen K, Virjamo V, Kilpeläinen A, Ikonen V-P, Pikkarainen L, Ärväs I-L, Kirsikka-aho S, Peltonen A, Sobuj N, Sivadasan U, Zhou X, Ge Z-M, Salminen T, Julkunen-Tiitto R, Peltola H. 2020. Growth responses of Boreal Scots pine, Norway spruce and Silver birch seedlings to simulated climate warming over three growing seasons in a controlled field experiment. *Forests* 11, id 943.
196. Gopalakrishnan, R., Packalen, P., Ikonen, V.-P., Rätty, J., Venäläinen, A., Laapas, M., Pirinen, P., Peltola, H. 2020. The utility of fused airborne laser scanning and multispectral data for improved wind damage risk assessment over a managed forest landscape in Finland. *Annals of Forest Science* 77(4), id 97.

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194. Baul, T. K., Alam, A., Strandman, H., Seppälä, J., Peltola, H., Kilpeläinen, A. 2020. Radiative forcing of forest biomass production and use under different thinning regimes and initial age structures of a Norway spruce forest landscape. *Canadian Journal of Forest Research* 50(6): 523–532.
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191. Hurmekoski, E., Myllyviita, T., Seppälä, J., Heinonen, T., Kilpeläinen, A., Pukkala, T., Mattila, T., Hetemäki, L., Asikainen, A., Peltola, H. 2020. Impact of structural changes in wood-using industries on net carbon emissions in Finland. *Journal of Industrial Ecology* 24(4): 899–912.
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C. Scientific books (monographs) (3)

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D. Publications intended for professional communities (25)

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E. Publications intended for the general public, linked to the applicants's research (5)

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