Självvärdering av Skogforsks ramprogram 2021-2024

Bilaga 1

Vetenskaplig publicering
Populärvetenskaplig kommunikation
Finansieringsöversikt
Personalstatistik

Vetenskaplig publicering 2021-2023 (november)

Totalt, fram till den 25 november 2023, har det under ramperioden publicerats (eller accepterats för publicering) 118 vetenskapliga artiklar, fem doktorsavhandlingar och 26 konferensbidrag. Samproduk·tion mellan olika områden har markerats med en artikel hos respektive område, men även genom att markera att artikeln ”dubbelräknats”. På det viset stämmer totalantalet artiklar. Eftersom förra utvärderingen avsåg fram till tidigt 2020 har även detta år tagits med i nedanstående sammanställning. Publiceringen 2020 ingår dock inte i siffrorna som nämns ovan.

	Område	2020	2021	2022	2023	Summa område	Summa 2021–2023
Artiklar	Förädling	17	13	8	6	44	27
	Skogsskötsel	16	15	18	20	69	53
	Driftsystem	4	3	10	11	28	24
	Värdekedjor	7	5	12	6	30	23
	Digitalisering	1	1	3	2	7	6
	Skogens samhällsnyttor	1	1	1	2	5	4
	"Dubbelräknade"	2	1	6	8	15	13
	Totalt	*44*	*37*	*46*	*39*	*166*	*122*
Avhandlingar	Förädling	1				1	0
	Skogsskötsel			1	2	3	3
	Driftsystem			1		1	1
	Värdekedjor	1		1		2	1
	Digitalisering			1		1	1
	Skogens samhällsnyttor	1				1	0
	"Dubbelräknade"	1		1		1	1
	Totalt	*2*	*0*	*3*	*2*	*8*	*5*
Proceedings	Förädling	1	0	0		1	0
	Skogsskötsel	1	1	1	2	5	4
	Driftsystem	6	8	7	16	37	31
	Värdekedjor	6	3	2	1	12	6
	Digitalisering	2	4	0	5	11	9
	Skogens samhällsnyttor	2	0	0		2	0
	"Dubbelräknade"	2	3		3	5	6
	Totalt	*16*	*13*	*10*	*21*	*63*	*44*

Vetenskaplig publicering 2021-2024 (november)

Artiklar i vetenskapliga tidskrifter

2021 (37 ST)

Anerud, E., Bergström, D., Routa, J. & Eliasson, L. 2021. Fuel quality and dry matter losses of stored wood chips - Influence of cover material. Biomass and Bioenergy 150: 106109.

Anerud, E. & Eriksson, A. 2021. Evaluation of an improved design for large-scale storage of wood chip and bark. Biomass and Bioenergy 154: 106255.

Benavides, R., Carvalho, B., Bastias, C. C., López-Quiroga, D., Mas, A., Cavers, S., Gray, A., Albet, A., Alía, R., Ambrosio, O., Aravanopoulos, F., Auñón, F., Avanzi, C., Avramidou, E.V., Bagnoli, F., m.fl. inklusive Westin, J. .....2021. The GenTree Leaf Collection: Inter- and intraspecific leaf variation in seven forest tree species in Europe. Global Ecol Biogeogr 30: 590– 597.

Bolibok, L., Andrzejczyk, T., Szeligowski, H. & Liziniewicz, M. 2021. New methods of oak planting require modification of tending prescriptions under high browsing pressure – A case study from north-eastern Poland. Forest Ecology and Management.

Calleja-Rodriguez, A., Chen, Z., Suontama, M., Pan, J. & Wu, H. X. 2021. Genomic Predictions With Nonadditive Effects Improved Estimates of Additive Effects and Predictions of Total Genetic Values in Pinus sylvestris. Frontiers in Plant Science 12(1236).

Capador-Barreto, H. D., Bernhardsson, C., Milesi, P., Vos, I., Lundén, K., Wu, H. X., Karlsson, B., Ingvarsson, P. K., Stenlid, J. & Elfstrand, M. 2021. Killing two enemies with one stone?: Genomics of resistance to two sympatric pathogens in Norway spruce. Mol Ecol.

Chen, Z.-Q., Zan, Y., Milesi, P., Zhou, L., Chen, J., Li, L., Cui, B., Niu, S., Westin, J., Karlsson, B., García-Gil, M. R., Lascoux, M. & Wu, H. X. 2021. Leveraging breeding programs and genomic data in Norway spruce (Picea abies L. Karst) for GWAS analysis. Genome Biology 22(1): 179.

Clarke, N., Kiær, L. P., Janne Kjønaas, O., Bárcena, T. G., Vesterdal, L., Stupak, I., Finér, L., Jacobson, S., Armolaitis, K., Lazdina, D., Stefánsdóttir, H. M. & Sigurdsson, B. D. 2021. Effects of intensive biomass harvesting on forest soils in the Nordic countries and the UK: A meta-analysis. Forest Ecology and Management 482.

Dahlgren Lidman F., H. E., Lundmark T., Fahlvik N 2021. Management of spontaneously regenerated mixed stands of birch and Norway spruce in Sweden. Silva Fennica 55(4).

Eliasson, L., Anerud, E., Eriksson, A. & von Hofsten, H. 2021. Productivity and costs of sieving logging residue chips. International Journal of Forest Engineering: 1-7.

Enström, J., Eriksson, A., Eliasson, L., Larsson, A. & Olsson, L. 2021. Wood chip supply from forest to port of loading – A simulation study. Biomass and Bioenergy 152: 106182.

Fahlvik, N. & Johansson, U. 2021. Growth of northern red oak in southern Sweden. Scandinavian Journal of Forest Research 36(6): 442-447.

Hall, D. O., J.; Zhao, W.; Kroon, J.; Wennström, U.; Wang, X-R. 2021. Divergent patterns between phenotypic and genetic variation in Scots pine. Plant Communications 2(1): 14.

Hallingbäck H R, B. V., Vizcaíno-Palomar N, Trotter F, Liziniewicz M, Marchi M, Berlin M, Ray D & Benito Garzón M. 2021. Managing uncertainty in Scots pine range-wide adaptation under climate change. Frontiers in Ecology and Evolution 9:724051: 18.

Hayatgheibi, H., Haapanen, M., Lundströmer, J., Berlin, M., Kärkkäinen, K. & Helmersson, A. 2021. The Impact of Drought Stress on the Height Growth of Young Norway Spruce Full-Sib and Half-Sib Clonal Trials in Sweden and Finland. Forests 12(498).

Horstkotte, T. & Djupström, L. 2021. Rennäring och skogsnäring i Sverige - delad kunskap för delad markanvändning. Future Forests Rapportserie 2021:2 Nr. Sveriges lantbruksuniversitet, Umeå. 46 sid.

Häggström, B., Domevscik, M., Öhlund, J. & Nordin, A. 2021. Survival and growth of Scots pine (Pinus sylvestris) seedlings in north Sweden: effects of planting position and arginine phosphate addition. Scandinavian Journal of Forest Research: 1-11.

Högbom, L., Abbas, D., Armolaitis, K., Baders, E., Futter, M., Jõgiste, K., Lazdins, A., Lukmine, D., Mustonen, M., Øistad, K., Poska, A., Rautio, P., Varnagiryte-Kabasinskiene, I., Vodde, F., Weslien, J-O, Wilhelmsson, L., & Zute, D. 2021. Trilemma of Nordic-Baltic Forestry – how to imply UN sustainable development goals. Sustainability.

Ilintsev, A., Nakvasina, E. N. & Högbom, L. 2021. Methods for protecting forest soils during logging operations. Lesnoy Zhurnal (Russian Forestry Journal) 5.

Jones, G., Liziniewicz, M., Adamopoulos, S. & Lindeberg, J. 2021. Genetic Parameters of Stem and Wood Traits in Full-Sib Silver Birch Families. Forests 12(2): 159.

Karlsson, S., Eriksson, A., Normann, F. & Johnsson, F. 2021. Large-Scale Implementation of Bioenergy With Carbon Capture and Storage in the Swedish Pulp and Paper Industry Involving Biomass Supply at the Regional Level. Frontiers in Energy Research 9(669).

Lariviere, D., Holmström, E., Brunet, J. & Weslien, J. 2021. Release of retained oaks in Norway spruce plantations. A 10-year perspective on oak vitality, spruce wood production and ground vegetation. Forest Ecology and Management 480.

Maher Hasselquist, E., Kuglerová, L., Sjögren, J., Hjältén, J., Ring, E., Sponseller, R. A., Andersson, E., Lundström, J., Mancheva, I., Nordin, A. & Laudon, H. 2021. Moving towards multi-layered, mixed-species forests in riparian buffers will enhance their long-term function in boreal landscapes. Forest Ecology and Management 493: 119254.

Manner, J. 2021. What is (not) an operator effect in forest work science? Silva Fennica 55(1).

Manner, J. & Ersson, B. T. 2021. Mechanized tree planting in Nordic forestry: simulating a machine concept for continuously advancing site preparation and planting. Journal of Forest Science 67: 242-246.

Marupakula, S., Mahmood, S., Clemmensen, K. E., Jacobson, S., Högbom, L. & Finlay, R. D. 2021. Root associated fungi respond more strongly than rhizosphere soil fungi to N fertilization in a boreal forest. Science of The Total Environment 766.

Nguyen, H.T.H., Chen, Z.-Q., Fries, A., Berlin, M., Hallingbäck, H.R. & Wu, H.X. 2021. Effect of additive, dominant and epistatic variances on breeding and deployment strategy in Norway. Forestry 95(3) 416-427.

Peacock, M., Audet, J., Bastviken, D., Cook, S., Evans, C. D., Grinham, A., Holgerson, M. A., Högbom, L., Pickard, A. E., Zieliński, P. & Futter, M. N. 2021a. Small artificial water bodies are widespread and persistent emitters of methane and carbon dioxide. Global Change Biology.

Peacock, M., Granath, G., Wallin, M. B., Högbom, L. & Futter, M. N. 2021b. Significant emissions from forest drainage ditches – an unaccounted term in anthropogenic greenhouse gas inventories? Biogeosciences.

Persson, T., Andersson, S., Bergholm, J., Grönqvist, T., Högbom, L., Vegerfors, B. & Wirén, A. 2021. Long-Term Impact of Liming on Soil C and N in a Fertile Spruce Forest Ecosystem. Ecosystems.

Pont, D., Dungey, H.S., Suontama, M. & Stovold, G.T. 2021. Spatial Models With Inter-Tree Competition From Airborne Laser Scanning Improve Estimates of Genetic Variance. Frontiers in Plant Science 11.

Ring, E., Andersson, M., Hansson, L. J., Jansson, G. & Högbom, L. 2021. Logging mats and logging residue as ground protection - during forwarder traffic along till hillslopes. Croatian Journal of Forest Engineering 42.

Samils, B., Kaitera, J., Persson, T., Stenlid, J. & Barklund, P. 2021. Relationship and genetic structure among autoecious and heteroecious populations of Cronartium pini in northern Fennoscandia. Fungal Ecology 50: 101032.

Serrano-León, H., Ahtikoski, A., Sonesson, J., Fady, B., Lindner, M., Meredieu, C., Raffin, A., Perret, S., Perot, T. & Orazio, C. 2021. From genetic gain to economic gain: simulated growth and financial performance of genetically improved Pinus sylvestris and Pinus pinaster planted stands in France, Finland and Sweden. Forestry: An International Journal of Forest Research.

Söderberg, J., Wallerman, J., Almäng, A., Möller, J. J. & Willén, E. 2021. Operational prediction of forest attributes using standardised harvester data and airborne laser scanning data in Sweden. Scandinavian Journal of Forest Research 36:4: 306-314.

Tetiana, S., Jenny, L., Mats, B., Johan, W. & Maria, J. A. 2021. Model analysis of temperature impact on the Norway spruce provenance specific bud burst and associated risk of frost damage. Forest Ecology and Management 493.

Öhrn, P., Berlin, M., Elfstrand, M., Krokene, P. & Jönsson, A.-M. 2021. Seasonal variation in Norway spruce response to inoculation with bark beetle-associated bluestain fungi one year after a severe drought. Forest Ecology and Management 496.

2022 (46 ST)

Akhter, S., Westrin, K. J., Zivi, N., Nordal, V., Kretzschmar, W. W., Delhomme, N., Street, N. R., Nilsson, O., Emanuelsson, O. & Sundström, J. F. 2022. Cone-setting in spruce is regulated by conserved elements of the age-dependent flowering pathway. New Phytologist 236(5): 1951-1963.

Alizoti, P., Bastien, J.-C., Chakraborty, D., Klisz, M. M., Kroon, J., Neophytou, C., Schueler, S., Loo, M. v., Westergren, M., Konnert, M., Andonovski, V., Andreassen, K., Brang, P., Brus, R., Cvjetković, B., Đodan, M., Fernández, M., Frýdl, J., Karlsson, B., Keserű, Z., Kormutak, A., Lavnyy, V., Maaten, T., Mason, B., Mihai, G., Monteverdi, C., Perić, S., Petkova, K., Popov, E. B., Rousi, M., Stojnić, S. M. & Tsvetkov, I. 2022. Non-Native Forest Tree Species in Europe: The Question of Seed Origin in Afforestation. Forests 13(2): 273.

Anerud, E., Bergström, D., Routa, J. & Eliasson, L. 2022. Sieving and Covering of Wood Chips Improves Storability. Energies 15(8): 2953.

Ara, M., Berglund, M., Fahlvik, N., Johansson, U. & Nilsson, U. 2022a. Pre-Commercial Thinning Increases the Profitability of Norway Spruce Monoculture and Supports Norway Spruce–Birch Mixture over Full Rotations. Forests 13(8).

Ara, M., Felton, A., Holmström, E., Petersson, L., Berglund, M., Johansson, U. & Nilsson, U. 2022b. Pre-commercial thinning in Norway spruce-birch mixed stands can provide abundant forage for ungulates without losing volume production. Forest Ecology and Management 520: 120364.

Bergström, D., Fernandez Lacruz, R., de la Fuente, T., Höök, C., Krajnc, N., Malinen, J., Nuutinen, Y., Triplat, M. & Nordfjell, T. 2022. Effects of boom-corridor thinning on harvester productivity and residual stand structure. International Journal of Forest Engineering: 1-17.

De Francesco, F., Magagnotti, N., Kováč, B., Heger, P., Heilig, D., Heil, B., Kovács, G., Zemánek, T. & Spinelli, R. 2022. Integrated Harvesting of Medium Rotation Hybrid Poplar Plantations: Systems Compared. Forests 13(11): 1873.

de la Fuente, T., Bergström, D., Fernandez Lacruz, R., Hujala, T., Krajnc, N., Laina, R., Nordfjell, T., Triplat, M. & Tolosana, E. 2022. Environmental Impacts of Boom-Corridor and Selectively Thinned Small-Diameter-Tree Forests. Sustainability 14(10): 6075.

Domevscik, M., Häggström, B., Lim, H., Öhlund, J. & Nordin, A. 2022. Large-scale assessment of artificially coated seeds for forest regeneration across Sweden. New Forests.

Ersson, B. T., Sundblad, L.-G. & Manner, J. 2022. Cost analysis of seedling supply systems adapted for mechanized tree planting: a case study from southern Sweden. Silva Fennica 56(2): article id 10663.

Felton, A., Felton, A. M., Wam, H. K., Witzell, J., Wallgren, M., Löf, M., Sonesson, J., Lindbladh, M., Björkman, C., Blennow, K., Cleary, M., Jonsell, M., Klapwijk, M. J., Niklasson, M., Petersson, L., Rönnberg, J., Sang, Å. O., Wrethling, F. & Hedwall, P.-O. 2022a. Forest biodiversity and ecosystem services from spruce-birch mixtures: The potential importance of tree spatial arrangement. Environmental Challenges 6: 100407.

Felton, A. M., Hedwall, P.-O., Felton, A., Widemo, F., Wallgren, M., Holmström, E., Löfmarck, E., Malmsten, J. & Karine Wam, H. 2022b. Forage availability, supplementary feed and ungulate density: Associations with ungulate damage in pine production forests. Forest Ecology and Management 513.

Gercans, J., Kons, K. & Kronholm, T. 2022. Business success factors of Latvian and Swedish forestry contractors. International Journal of Forest Engineering 33(3): 262-270.

Hansson, L. J., Forsmark, V., Flisberg, P., Rönnqvist, M., Mörk, A. & Jönsson, P. 2022. A decision support tool for forwarding operations with sequence-dependent loading. Canadian Journal of Forest Research 52: 1-14.

Hartsch, F., Dreger, F., Englund, M., Hoffart, E., Rinkenauer, G., Wagner, T. & Jaeger, D. 2022. Positive and Negative Work Practices of Forest Machine Operators: Interviews and Literature Analysis. Forests 13(12): 2153.

Heuchel, A., Hall, D., Zhao, W., Gao, J., Wennström, U. & Wang, X.-R. 2022. Genetic diversity and background pollen contamination in Norway spruce and Scots pine seed orchard crops. Forestry Research 2(1): 1-12.

Hoffmann, S., Schönauer, M., Heppelmann, J., Asikainen, A., Cacot, E., Eberhard, B., Hasenauer, H., Ivanovs, J., Jaeger, D., Lazdins, A., Mohtashami, S., Moskalik, T., Nordfjell, T., Stereńczak, K., Talbot, B., Uusitalo, J., Vuillermoz, M. & Astrup, R. 2022. Trafficability Prediction Using Depth-to-Water Maps: the Status of Application in Northern and Central European Forestry. Current Forestry Reports 8:55-71.

Hyll, K., Joevenller, S., Svennerstam, H., Nordström, M., Broman, O., Oja, J. & Sandberg, D. 2022. X-ray computed tomography for the detection of damage in Scots pine trunks caused by blister-rust fungus Cronartium pini (Willd.). Wood Material Science & Engineering 17(6): 1022-1024.

Ilintsev, A., Nakvasina, E., Högbom, L. & Bogdanov, A. 2022. Influence of ruts on the physical properties of Gleyic Retisols after logging machinery passage. Scandinavian Journal of Forest Research 37(4):254-263.

Jonsson, R., Rönnqvist, M., Jönsson, P. & Lindroos, O. 2022a. Comparison of modeling approaches for evaluation of machine fleets in central Sweden forest operations. International Journal of Forest Engineering, doi: 10.1080/14942119.2022.2102346.

Jonsson, R., Woxblom, L., Björheden, R., Nordström, E-M., Blagojevic, B., Lindroos, O. 2022b. Analysis of decision-making processes for strategic technology investments in Swedish large-scale forestry. Silva Fennica 56(3):10755.

Kons, K., Blagojevic, B., Mola-Yudego, B., Prinz, R., Routa, J., Kulisic, B., Gagnon, B. & Bergström, D. 2022. Industrial End-Users' Preferred Characteristics for Wood Biomass Feedstocks. Energies 15: 3721.

Labelle, E., Hansson, L., Högbom, L., Jourgholami, M. & Laschi, A. 2022. Strategies to mitigate the effects of soil physical disturbances caused by forest machinery: a comprehensive review. Current Forestry Reports 8:20-37.

Li, L., Milesi, P., Tiret, M., Chen, J., Sendrowski, J., Baison, J., Chen, Z.-q., Zhou, L., Karlsson, B., Berlin, M., Westin, J., Garcia-Gil, M. R., Wu, H. X. & Lascoux, M. 2022. Tearing apart the joint effect of demography and natural selection in the birth of a contact zone. New Phytologist 236(5): 1976-1987.

Liziniewicz, M., Barbeito, I., Zvirgzdins, A., Stener, L.-G., Niemistö, P., Fahlvik, N., Johansson, U., Karlsson, B. & Nilsson, U. 2022a. Production of genetically improved silver birch plantations in southern and central Sweden. Silva Fennica 56(1).

Liziniewicz, M., Tolio, B. & Cleary, M. 2022b. Monitoring of long-term tolerance of European ash to Hymenoscyphus fraxineus in clonal seed orchards in Sweden. Forest Pathology 52(5): e12773.

Marius Tuyishime, J. R., Adediran, G. A., Olsson, B. A., Sahlén Zetterberg, T., Högbom, L., Spohn, M., Lim, H., Klysubun, W., Borca, C. N., Huthwelker, T. & Petter Gustafsson, J. 2022. Phosphorus speciation in the organic layer of two Swedish forest soils 13–24 years after wood ash and nitrogen application. Forest Ecology and Management 521: 120432.

Mohtashami, S., Eliasson, L., Hansson, L., Willén, E., Thierfelder, T. & Nordfjell, T. 2022a. Evaluating the effect of DEM resolution on performance of cartographic depth-to-water maps, for planning logging operations. International Journal of Applied Earth Observation and Geoinformation 108: 102728.

Mohtashami, S., Thierfelder, T., Eliasson, L., Lindström, G. & Sonesson, J. 2022b. Use of Hydrological Models to Predict Risk for Rutting in Logging Operations. Forests 13(6):901.

Nordin, P., Olofsson, E. & Hjelm, K. 2022. Successful spruce regenerations – impact of site preparation and the use of variables from digital elevation models in decision-making? Scandinavian Journal of Forest Research 37(1):33-44.

Nordmark, D., Vestin, J., Hansson, L. & Kumpiene, J. 2022. Long-term evaluation of geotechnical and environmental properties of ash-stabilised road. Journal of Environmental Management 318: 115504.

Persson, M., Trubins, R., Eriksson, L. O., Bergh, J., Sonesson, J. & Holmström, E. 2022. Precision thinning – a comparison of optimal stand-level and pixel-level thinning. Scandinavian Journal of Forest Research 37(2): 99-108.

Petersson, L., Lariviere, D., Holmström, E., Fritz, Ö. & Felton, A. 2022. Conifer tree species and age as drivers of epiphytic lichen communities in northern European production forests. The Lichenologist 54(3-4): 213-225.

Pfeffer, S. E., Dressel, S., Wallgren, M., Bergquist, J. & Kalén, C. 2022. Browsing Damage on Scots Pine: Direct and Indirect Effects of Landscape Characteristics, Moose and Deer Populations. Diversity 14(9): 734.

Ray, D., Berlin, M., Alia, R., Sanchez, L., Hynynen, J., González-Martinez, S. & Bastien, C. 2022. Transformative changes in tree breeding for resilient forest restoration. Frontiers in Forests and Global Change 5.

Ring, E., Johansson, F., von Brömssen, C. & Bergkvist, I. 2022. A snapshot of forest buffers near streams, ditches, and lakes on forest land in Sweden – lessons learned. Silva Fennica 56(4): 10676.

Shah, N. W., Baillie, B. R., Bishop, K., Ferraz, S., Högbom, L. & Nettles, J. 2022. The effects of forest management on water quality. Forest Ecology and Management 522: 120397.

Spinelli, R., Kováč, B., Heger, P., Heilig, D., Heil, B., Kovács, G. & Magagnotti, N. 2022a. The Effect of Target Log Length on Log Recovery and Harvesting Cost: The Example of Short-Rotation Poplar Plantations. Forests 13(5): 669.

Spinelli, R., Kovac, B., Heger, P., Helig, D., Heil, B., Kovàcs, G. & Magagnotti, N. 2022b. Manipulating grading strategy for the efficient harvesting of industrial poplar plantations. International Journal of Forest Engineering 33(2): 98-107.

Spinelli, R., Kovacs, B., Heger, P., Heilig, D. & Magagnotti, N. 2022c. First trial of a prototype chainflail delimber for the Europe an short rotation poplar plantations. European Journal of Forest Research 141(6): 1139-1149.

Spinelli, R., Magagnotti, N., Cosola, G., Engler, B., Leitner, S. & Vidoni, R. 2022d. Fuel and Time Consumption in Alpine Cable Yarder Operations. Forests 13(9): 1394.

Spinelli, R., Magagnotti, N., De Francesco, F., Kováč, B., Heger, P., Heilig, D., Heil, B., Kovács, G. & Zemánek, T. 2022e. Cut-to-Length Harvesting Options for the Integrated Harvesting of the European Industrial Poplar Plantations. Forests 13(9): 1478.

Svennerstam, H. & Jämtgård, S. 2022. Timing is everything – obtaining accurate measures of plant uptake of amino acids. New Phytologist 234(1): 311-318.

Thorning, A. & Mark-Herbert, C. 2022. Motives for Sustainability Certification—Private Certified Forest Owners' Perspectives. Forests 13(5): 790.

Tiret, M., Olsson, L., Grahn, T., Karlsson, B., Milesi, P., Lascoux, M., Lundqvist, S.-O. & García-Gil, M. R. 2022. Divergent selection predating the Last Glacial Maximum mainly acted on macro-phenotypes in Norway spruce. Evolutionary Applications, doi: 10.1111/eva.13519.

Tong, C. H. M., Nilsson, M. B., Sikström, U., Ring, E., Drott, A., Eklöf, K., Futter, M. N., Peacock, M., Segersten, J. & Peichl, M. 2022. Initial effects of post-harvest ditch cleaning on greenhouse gas fluxes in a hemiboreal peatland forest. Geoderma 426: 116055.

2023, NOVEMBER (39 ST)

Andrzejczyk, T., Liziniewicz, M. & Bolibok, L. 2023. Growth and quality of 16-year-old sessile oak (Quercus petraea (Matt.) Liebl.) planted in traditional and alternative row planting patterns. Forestry: An International Journal of Forest Research.

Chen, Z.-Q., Klingberg, A., Hallingbäck, H. R. & Wu, H. X. 2023. Preselection of QTL markers enhances accuracy of genomic selection in Norway spruce. BMC Genomics 24(1): 147.

Dreger, F. A., Englund, M., Hartsch, F., Wagner, T., Jaeger, D., Björheden, R. & Rinkenauer, G. 2023. Hierarchical Task Analysis (HTA) for Application Research on Operator Work Practices and the Design of Training and Support Systems for Forestry Harvester. Forests 14(2): 424.

Eliasson, L., Kärhä, K. & Arlinger, J. 2023. Fuel consumption in logging operations in Sweden. International Journal of Forest Engineering: 1-7.

Ersson, B. T., Hansson, L., Manner, J., Sandström, P. & Sonesson, J. 2023. Forest management in northern Fennoscandia: the need for solutions that mitigate conflicts during forest regeneration and increase the use of continuous cover forestry. Silva Fennica 57(3): article id 23053.

Estravis-Barcala, M. v. d. V., Tom; Chen, Zhiqiang; Funda, Tomas; Chaudhary, Rajiv; Klingberg, Adam; Fundova, Irena; Suontama, Mari; Hallingbäck, Henrik; Bernhardsson, Carolina; Nystedt, Björn; Ingvarsson, Pär K.; Sherwood, Ellen; Street, Nathaniel; Gyllensten, Ulf; Nilsson , Ove; Wu, Harry 2023. Whole-genome resequencing facilitates the development of a 50K single nucleotide polymorphism genotyping array for Scots pine (Pinus sylvestris L.) and its transferability to other pine species. The Plant Journal: in press.

Fernandez Lacruz, R., Grönlund, Ö., Johannesson, T., Djupström, L. B., Söderberg, J. & Eliasson, L. 2023. Harvester time consumption in nature conservation management operations. International Journal of Forest Engineering 34(2): 112-116.

F jeld, D., Marier, P., Edlund, B., Eliasson, L., Frisk, M. & Rönnqvist, M. 2023. Accelerated learning for wood supply managers – the next generation of on-line training tools. International Journal of Forest Engineering, doi: 10.1080/14942119.2023.2252705.

Fjeld, D., Persson, M., Fransson, J. E. S., Bjerketvedt, J. & Bråthen, M. 2023. Modelling forest road trafficability with satel lite-based soil moisture variables. International Journal of Forest Engineering: 1-12.

Fredriksson, E., Wallgren, M. & Löfroth, T. 2023. Wildfire and prescribed burning impact moose forage availability and browsing levels in the northern boreal forest. Scandinavian Journal of Forest Research: 1-12.

Futter, M. N., Dirnböck, T., Forsius, M., Bäck, J. K., Cools, N., Diaz-Pines, E., Dick, J., Gaube, V., Gillespie, L. M., Högbom, L., Laudon, H., Mirtl, M., Nikolaidis, N., Poppe Terán, C., Skiba, U., Vereecken, H., Villock, H., Weldon, J., Wohner, C. & Alam, S. A. 2023. Leveraging research infrastructure co-location to evaluate constraints on terrestrial carbon cycling in northern European forests. Ambio.

Gossner, M. M., Perret-Gentil, A., Britt, E., Queloz, V., Glauser, G., Ladd, T., Roe, A. D., Cleary, M., Liziniewicz, M. & Nielsen, L. R. 2023. A glimmer of hope–ash genotypes with increased resistance to ash dieback pathogen show cross-resistance to emerald ash borer. New Phytologist.

Hall, D., Zhao, W., Heuchel, A., Gao, J., Wennstrom, U. & Wang, X.-R. 2023. The effect of gene flow on frost tolerance in Scots pine – Latitudinal translocation of genetic materia. Forest Ecology and Management 544(September 2023, 121215): 1-10.

Huo, L., Strengbom, J., Lundmark, T., Westerfelt, P. & Lindberg, E. 2023. Estimating the conservation value of boreal forests using airborne laser scanning. Ecological Indicators 147: 109946.

Jones, G., Liziniewicz, M., Lindeberg, J. & Adamopoulos, S. 2023. Non-Destructive Evaluation of Downy and Silver Birch Wood Quality and Stem Features from a Progeny Trial in Southern Sweden. Forests 14(10): 2031.

Jonsson, R., Rönnqvist, M., Flisberg, P., Jönsson, P. & Lindroos, O. 2023. Country-wide analysis of the potential use of harwarders for final fellings in Sweden. Scandinavian Journal of Forest Research: 1-16.

Juvany, L., Hedwall, P.-O., Felton, A., Öhman, K., Wallgren, M., Kalén, C., Jarnemo, A., Johansen, H. & Felton, A. 2023. From simple metrics to cervid forage: Improving predictions of ericaceous shrub biomass. Forest Ecology and Management 544.

Kons, K., Athanassiadis, D. & Agar, D. A. 2023. Forecasting Future Procurement Potential of Swedish Forest Biomass Using Forest Inventory Data. Croatian Journal of Forest Engineering 44: 10.

Kärhä, K., Haavikko, H., Kääriäinen, H., Palander, T., Eliasson, L. & Roininen, K. 2023a. Fossil-fuel consumption and CO2eq emissions of cut-to-length industrial roundwood logging operations in Finland. European Journal of Forest Research.

Kärhä, K., Seuri, M., Mac Donagh, P. M., Acuna, M., Kanzian, C., Petković, V., Robert, R. C. G., Costa, L. H. S., da Cruz, R. C., Krumov, T., Bradley, A., Röser, D., Pinto, C., Dian, W., Pandur, Z., Dvořák, J., Jørgensen, M. T., Muiste, P., Irdla, M., Ginet, C., Purfürst, T., Dietz, H.-U., Spinelli, R., Suzuki, Y., Shirasawa, H., Lazdiņš, A., Visser, R., Harvey, C., Skjølaas, D., Moskalik, T., Trzciński, G., Borz, S. A., Muşat, E. C., Triplat, M., Oberholzer, F., Talbot, B., Tolosana, E., von Hofsten, H., Akay, A. O., Bakay, B., Conrad IV, J. & Olivera, A. 2023b. Overview of Global Long-Distance Road Transportation of Industrial Roundwood. Croatian Journal of Forest Engineering.

Kärvemo, S., Huo, L., Öhrn, P., Lindberg, E. & Persson, H. J. 2023. Different triggers, different stories: Bark-beetle infestation patterns after storm and drought-induced outbreaks. Forest Ecology and Management 545: 121255.

Lariviere, D., Holmström, E., Petersson, L., Djupström, L. & Weslien, J. 2023. Ten years after: Release cutting around old oaks still affects oak vitality and saproxylic beetles in a Norway spruce stand. Agricultural and Forest Entomology n/a(n/a).

Larsson Ekström, A., Sjögren, J., Djupström, L. B., Thor, G. & Löfroth, T. 2023. Reinventory of permanent plots show that kelo lichens face an extinction debt. Biological Conservation 288: 110363.

Latterini, F., Dyderski, M.K., Horodecki, P., Rawlik, M., Stefanoni, W., Högbom, L., Venanzi, R., Picchio, R., Jagodzinski, A.M. 2023. A meta-analysis of the effects of ground-based forest operations on fine roots in forest soils. Land Degradation & Development.

Lee, D., Siipilehto, J., Beuker, E., Fahlvik, N., Liziniewicz, M. & Hynynen, J. 2023. Multivariate mixed-effects models for stand characteristics of hybrid aspen plantations in southern Finland and southern Sweden. Forest Ecology and Management 541: 121066.

Lidman, F. D., Karlsson, M., Lundmark, T., Sängstuvall, L. & Holmström, E. 2023. Birch establishes anywhere! So, what is there to know about natural regeneration and direct seeding of birch? New Forests.

Liziniewicz, M., Berlin, M., Solvin, T., Hallingbäck, H. R., Haapanen, M., Ruotsalainen, S. & Steffenrem, A. 2023. Development of a universal height response model for transfer of Norway spruce (Picea abies L. Karst) in Fennoscandia. Forest Ecology and Management 528: 120628.

Manner J., Ersson. B. T. 2023a. A pilot study of continuous cover forestry in boreal forests: Do remaining trees affect forwarder productivity? Journal of Forest Science 69(7): 317–323.

Manner J., Karlsen. T., Ersson B. T. 2023b. A pilot study of Continuous Cover Forestry in boreal forests: Decreasing the harvest intensity during selection cutting increases piece size, which in turn increases harvester productivity. Journal of Forest Science 69(4): 172–177.

Mohtashami, S., Hansson, L. & Eliasson, L. 2023. Estimating Soil Strength Using GISBased Maps - A case study in Sweden. European Journal of Forest Engineering 9(2): 70-79.

Nordin, P., Hjelm, K. & Olofsson, E. 2023. Within-site adaptation: Growth and mortality of Norway spruce, Scots pine and Silver birch seedlings in different planting positions across a soil moisture gradient. Silva Fennica.

Nordlander, G., Björklund, N., Hellqvist, C., Nordenhem, H., Liziniewicz, M. & Hjelm, K. 2023. Trap catch data are poor predictors of damage caused by pine weevil (Hylobius abietis) to conifer seedlings. Forest Ecology and Management 537: 120968.

Petersen, T. K., Kolstad, A. L., Kouki, J., Leroux, S. J., Potvin, L. R., Tremblay, J. P., Wallgren, M., Widemo, F., Cromsigt, J. P. G. M., Courtois, C., Austrheim, G., Gosse, J., den Herder, M., Hermanutz, L. & Speed, J. D. M. 2023. Airborne laser scanning reveals uniform responses of forest structure to moose (Alces alces) across the boreal forest biome. Journal of Ecology.

Petersson L., Lariviere D., H. E., Lindbladh M., & A., F. 2023. Potential implications of shortened rotation length for forest birds, bryophytes, lichens and vascular plants: An example from southern Swedish production forests. Plos One.

Ring, E., Löfgren, S., Högbom, L., Östlund, M., Wiklund-McKie, M.-L. & McKie, B. G. 2023. Long-term effects on water chemistry and macroinvertebrates of selective thinning along small boreal forest streams. Forest Ecology and Management 549: 121459.

Rönnqvist, M., Flisberg, P., Frisk, M. Bredström, D. & Paradis, J-B. 2023. A new hybrid method for quick and accurate calculation of forest transportation distances. International transactions in operational research 1-29, doi: 10.1111/itor.13409.

Rossander, M. & Lideskog, H. 2023. Design and Implementation of a Control System for an Autonomous Reforestation Machine Using Finite State Machines. Forests 14(7): 1340.

Segtowich, A. C., Huuskonen, S., Fahlvik, N. & Holmström, E. 2023. Select or Not? Comparing the Impact of Selective and Schematic Thinning on Scots Pine Tree Growth and Stand Structure. Forests. 14.

Witthayolankowit, K., Marson, A., Baddigam, K., Reddy Lebedeva, D., Shaikh, M., Kane, A., Gupta, D., Iwarsson Wide, M., Mathew, A.P., Kubička, D., Manzardo, A. & Samec, J.S.M. 2023. Valorization of beetle infected spruce to produce textile fibers and biofuels: Environmental sustainability evaluated by life cycle assessment. Chemical Engineering Journal 470, 177179.

Konferensbidrag

2021

Anerud, E., Bergström, D., Routa, J. & Eliasson, L. 2021. Fuel Quality and Dry Matter Losses of Stored Wood Chips - Influence of Cover Material. In: Eds. Chung, W., Sessions, J., Lyons, K. and Wigginton, K., Proceedings of The Joint 43rd Annual Meeting of Council on Forest Engineering (COFE) & the 53rd International Symposium on Forest Mechanization (FORMEC) COFE-FORMEC 2021 - Forest Engineering Family – Growing forward Together 27-30 september.

Anerud, E. & Eriksson, A. 2021. Evaluation of an Improved Concept Enabling Large-Scale Storage of Wood Chip and Bark. In: Eds. Chung, W., Sessions, J., Lyons, K. and Wigginton, K., Proceedings of The Joint 43rd Annual Meeting of Council on Forest Engineering (COFE) & the 53rd International Symposium on Forest Mechanization (FORMEC) COFE-FORMEC 2021 - Forest Engineering Family – Growing forward Together 27-30 september.

Dreger, F., Hartsch, F. & Englund, M. 2021. A Search for Beneficial Work Practices of Forest Machine Operators - Interviews with Forest Machine Instructors and Scientific Literature Search. In: Eds. Chung, W., Sessions, J., Lyons, K. and Wigginton, K., Proceedings of The Joint 43rd Annual Meeting of Council on Forest Engineering (COFE) & the 53rd International Symposium on Forest Mechanization (FORMEC) COFE-FORMEC 2021 - Forest Engineering Family – Growing forward Together 27-30 september 2021.

Ersson, B. T., Manner, J. & Sundblad, L.-G. 2021. Comparing the cost of cardboard box concepts that increase the productivity of tree planting machines: a case study from southern Sweden. In: Eds. Chung, W., Sessions, J., Lyons, K. and Wigginton, K., Proceedings of The Joint 43rd Annual Meeting of Council on Forest Engineering (COFE) & the 53rd International Symposium on Forest Mechanization (FORMEC) COFE-FORMEC 2021 - Forest Engineering Family – Growing forward Together 27-30 september, Corvallis, Oregon, USA, 27-30 September.

Fjeld, D., Väätäinen, K., von Hofsten, H., Noreland, D., Callesen, I. & Lazdins, A. 2021. A Common Nordic-Baltic Costing Frame work for Road, Rail and Sea Transport of Roundwood. In: Eds. Chung, W., Sessions, J., Lyons, K. and Wigginton, K., Proceedings of The Joint 43rd Annual Meeting of Council on Forest Engineering (COFE) & the 53rd International Symposium on Forest Mechanization (FORMEC) COFE-FORMEC 2021 - Forest Engineering Family – Growing forward Together 27-30 september.

Hansson, L., Forsmark, V., Flisberg, P., Rönnqvist, M., Mörk, A. & Jönsson, P. 2021. An efficient decision support tool for forwarding operations. In: Eds. Chung, W., Sessions, J., Lyons, K. and Wigginton, K., Proceedings of The Joint 43rd Annual Meeting of Council on Forest Engineering (COFE) & the 53rd International Symposium on Forest Mechanization (FORMEC) COFE-FORMEC 2021 - Forest Engineering Family – Growing forward Together 27-30 september, Corvallis, Oregon, USA, 27-30 September.

Jonsson, R., Rönnqvist, M., Lindroos, O., Flisberg, P. & Jönsson, P. 2021. Modeling Approaches for Harwarders in Forest Operations. In: Eds. Chung, W., Sessions, J., Lyons, K. and Wigginton, K., Proceedings of The Joint 43rd Annual Meeting of Council on Forest Engineering (COFE) & the 53rd International Symposium on Forest Mechanization (FORMEC) COFE-FORMEC 2021 - Forest Engineering Family – Growing forward Together 27-30 september.

Karlsson, S., Eriksson, A., Normann, F. & Johnsson, F. 2021. CCS in the pulp and paper industry–implications on regional bio mass supply. In: Eds. Proceedings of the 15th Greenhouse Gas Control Technologies Conference 15-18 March 2021, Abu Dhabi, UAE, 15th 18th March 2021.

Manner, J., Eriksson, A., Hansson, L. & Ersson, B. T. 2021. Simulation tool to analyze the silvicultural results of conceptual autonomous tree planting machines: a sub-study of the Swedish AutoPlant project. In: Eds. Chung, W., Sessions, J., Lyons, K. and Wigginton, K., Proceedings of The Joint 43rd Annual Meeting of Council on Forest Engineering (COFE) & the 53rd International Symposium on Forest Mechanization (FORMEC) COFE-FORMEC 2021 - Forest Engineering Family – Growing forward Together 27-30 september, Corvallis, Oregon, USA [digital], 27-30 September 2021.

Mohtasami, S., Thierfelder, T., Eliasson, L. & Soneson, J. 2021. Evaluating Possibilities for Developing Dynamic Soil Moisture Maps Using Hydrological Modelling. In: Eds. Chung, W., Sessions, J., Lyons, K. and Wigginton, K., Proceedings of The Joint 43rd Annual Meeting of Council on Forest Engineering (COFE) & the 53rd International Symposium on Forest Mechanization (FORMEC) COFE-FORMEC 2021 - Forest Engineering Family – Growing forward Together 27-30 september.

Rönnqvist, M., Willén, E., Flisberg, P., Frisk, M. & Friberg, G. 2021. Optimization of Primary Extraction Routes. In: Eds. Chung, W., Sessions, J., Lyons, K. and Wigginton, K., Proceedings of The Joint 43rd Annual Meeting of Council on Forest Engineering (COFE) & the 53rd International Symposium on Forest Mechanization (FORMEC) COFE-FORMEC 2021 - Forest Engineering Family – Growing forward Together 27-30 september.

Woxblom, L. & Sandahl, C. 2021. Developed collaboration in contractor forestry –an intervention in relational development. In: Eds. Chung, W., Sessions, J., Lyons, K. and Wigginton, K., Proceedings of The Joint 43rd Annual Meeting of Council on Forest Engineering (COFE) & the 53rd International Symposium on Forest Mechanization (FORMEC) COFE-FORMEC 2021 - Forest Engineering Family – Growing forward Together 27-30 september.

Ågren, K., Nordström M, Englund, M., Hartsch, F., Dreger, F., Hoffart, E., Skagestad, E. & Reistad, O. B. 2021. Exploring the Need for Feedback on Performance - Interviews with Harvester Operators. In: Eds. Chung, W., Sessions, J., Lyons, K. and Wigginton, K., Proceedings of The Joint 43rd Annual Meeting of Council on Forest Engineering (COFE) & the 53rd International Symposium on Forest Mechanization (FORMEC) COFE-FORMEC 2021 - Forest Engineering Family – Growing forward Together 27-30 september.

2022

Andersson, G. & Jönsson, P. 2022. Towards Automated and Fossil Free Operations in Swedish Forestry. I: Chung, W., Kanzian, C. & McNeary, P. (red.) The Joint 44th Annual Meeting of Council on Forest Engineering (COFE), the 54th International Symposium on Forest Mechanization (FORMEC), and 2022 IUFRO All-Division 3 Meeting. One Big Family – Shaping Our Future Together, Corvallis, OR, October 4-7. COFE & Formec.

Eklöf, K., Hu, H., Sikström, U., Garcia Bravo, A., Blomgren, A., Dooha, M., Åkerblom, S., Hansson, L., Bertilsson, S., Segersten, J., Cascone, C., Islam Choudhury, M. & Björn, E. 2022. Methylmercury build-up in above ground logging residues. EGU General Assembly, Vienna, Austria, 23–27 May 2022.

Fjeld, D., Marier, P., Edlund, B., Eliasson, L., Frisk, M. & Rönnqvist, M. 2022. The Virtual Wood Supply Arena – Next Generation On-line Training Tool for Forest Logistics. I: Chung, W., Kanzian, C. & McNeary, P (red.). The Joint 44th Annual Meeting of Council on Forest Engineering (COFE), the 54th International Symposium on Forest Mechanization (FORMEC), and 2022 IUFRO All-Division 3 Meeting. One Big Family – Shaping Our Future Together, Corvallis, Oregon, October 4-7. COFE & Formec.

Hansson, L., Flisberg, P., Rönnqvist, M., Forsmark, V., Johansson, F. & Jönsson, P. 2022a. Pathfinder – A tool for operational planning of forest regeneration on clearcuts. I: Wei, Y. (red.) The 19th Symposium on Systems Analysis in Forest Resources Estes Park, Estes Park, Colorado, USA.

Hansson, L., Forsmark, V., Flisberg, P., Rönnqvist, M., Mörk, A. & Jönsson, P. 2022b. A decision support tool for forwarding operations with sequence-dependent loading. I: Wei, Y. (red.) The 19th Symposium on Systems Analysis in Forest Resources, Estes Park, Colorado, USA.

Hyll, K. & Nordström, M. 2022. Evaluation of Sawmill Log Scanners Compared with Forest Harvester Measurements. I: Wang, X. & Ross, R. J. (red.) The 22nd International Nondestructive Testing and Evaluation of Wood, Quebec City U.S. Department of Agriculture, Forest Service, Forest Products Laboratory.

Jonsson, R., Woxblom, L., Björheden, R., Nordström, E.-M., Blagojevic, B. & Lindroos, O. 2022. Decision-making Processes for Strategic Technology Investments in Swedish Large scale Forestry. I: Chung, W., Kanzian, C. & McNeary, P. (red.) The Joint 44th Annual Meeting of Council on Forest Engineering (COFE), the 54th International Symposium on Forest Mech anization (FORMEC), and 2022 IUFRO All-Division 3 Meeting. One Big Family – Shaping Our Future Together, Corvallis, OR, October 4-7. COFE & Formec.

Kärhä, K., Seuri, M., Mac Donagh, P., Acuna, M., ... & Von Hofsten, H. 2022. Global overview of industrial roundwood road transport. I: Chung, W., Kanzian, C. & McNeary, P. (red.) The Joint 44th Annual Meeting of Council on Forest Engineering (COFE), the 54th International Symposium on Forest Mechanization (FORMEC), and 2022 IUFRO All-Division 3 Meeting. One Big Family – Shaping Our Future Together, Corvallis, OR, October 4-7.

Manner, J., Eriksson, A. & Ersson, B. T. 2022. Developing tree planting robots with help of simulation. I: Feng, B., Pedrielli, G., Peng, Y., Shashaani, S., Song, E., Corlu, C. G., Lee, L. H., Chew, E. P., Roeder, T. & Lendermann, P. (red.), Winter Simulation Conference, Singapore.

Wiberg, V., Wallin, E., Wadbro, E., Rossander, M. & Servin, M. 2022. Simulation-to-reality Transfer to Control a Forwarder with Active Suspensions through Deep Reinforcement Learning. I: Chung, W., Kanzian, C. & McNeary, P. (red.) The Joint 44th Annual Meeting of Council on Forest Engineering (COFE), the 54th International Symposium on Forest Mechanization (FORMEC), and 2022 IUFRO All-Division 3 Meeting. One Big Family – Shaping Our Future Together, Corvallis, OR, October 4-7. COFE & Formec.

2023

Arlinger, J., Möller, J., Hansson, L. & Nordström, M. 2023. Standardization of data from mechanized scarification and planting. In: Advancing Silvicultural Technology, Umeå, Sweden, 22-24 Aug 2023.

Björheden, R. 2023. On track of tracelessness - strategies to reduce soil impact of mechanized logging. The 55th International Symposium on Forest Mechanization (FORMEC) and the 7th Forest Engineering Conference (FEC), Florence, Italy, 19-22 Sep 2023.

Ene, L., Rahaman, A., Hyll, K., Längkvist, M., Hedberg, R., Sidén, F., Nordström, M. & Willén, E. 2023. Mapping the need for pre-commercial thinnings using IoT, AI and remotelly sensed information. In: Eds. Advancing Silvicultural Technology, Umeå, Sweden, 22-24 Aug 2023.

Eliasson, L. & Arlinger, J. 2023a. Fuel consumption in final felling. In: The 55th International Symposium on Forest Mechanization (FORMEC) and the 7th Forest Engineering Conference (FEC), Florence, Italy, 19-22 Sep 2023.

Eliasson, L. & Arlinger, J. 2023b. Fuel consumption for harvesting operations in Sweden. In: Oyier, P. & Tas, I (red.): COFE-FETEC, Forest operations: A tool for forest management. Flagstaff, Arizona, May 23-25, 2023.

Englund, M., Rossander, M., Kärnell, S., Zackrisson, M., Ågren, K. & Ericson, L. 2023. Concepts of energy efficient electrified CTL forestry machines. In: The 55th International Symposium on Forest Mechanization (FORMEC) and the 7th Forest Engineering Conference (FEC), Florence, Italy, 19-22 Sep 2023.

Ersson B. T., Manner J., L-G., S. & M., H. 2023. Mechanized tree planting: examining the bottlenecks preventing full-scale implementation of tree planting machines in Swedish forestry. In: Advancing Silvicultural Technology, Umeå, Sweden, 22-24 Aug 2023.

Fernandez-Lacruz, R., Eriksson, A., Parklund, T., Eliasson, L. & Davidsson, A. 2023. How much does it cost to increase the procurement of logging residues in Sweden? In: The 55th International Symposium on Forest Mechanization (FORMEC) and the 7th Forest Engineering Conference (FEC), Florence, Italy, 19-22 Sep 2023.

Hansson, L., Flisberg, P., Rönnqvist, M., Johansson, F., Sörensen, R. & Jönsson, P. 2023a. Pathfinder – A decision support tool for operational planning of forest regeneration measures. In: Nordic Baltic conference: Advancing Silvicultrual Technology, Umeå, Sweden, 20-23 August.

Hansson, L., Flisberg, P., Rönnqvist, M., Johansson, F., Sörensen, R. & Jönsson, P. 2023b. Pathfinder – A decision support tool for operational planning of integrated mechanical site preparation and planting on forest regeneration areas. In: The 55th International Symposium on Forest Mechanization (FORMEC) and the 7th Forest Engineering Conference (FEC), Florence, Italy, 19-22 Sept.

Hansson, L., Rossander, M., Lideskog, H., Sten, G. & van Westendorp, R. 2023c. Autoplant – concepts and tests of autonomous forest regeneration. In: The 55th International Symposium on Forest Mechanization (FORMEC) and the 7th Forest Engineering Conference (FEC), Florence, Italy, 19-22 Sept.

Hansson, L., Rossander, M., Lideskog, H., Sten, G. & van Westendorp, R. 2023d. Autoplant – concepts and tests of autonomous forest regeneration. In: Advancing Silvicultural Technology, Umeå, Sweden, 22-24 Aug 2023.

Lundqvist, R., Rönnqvist, M., Flisberg, P., Jönsson, P. & Lindroos, O. 2023a. Country-wide analysis of the potential use of harwarders for final fellings in Sweden. In: The 55th International Symposium on Forest Mechanization (FORMEC) and the 7th Forest Engineering Conference (FEC), Florence, Italy, 19-22 Sep 2023.

Lundqvist, R., Woxblom, L., Björheden, R. Nordström, E-M., Blagojevic. B. & Lindroos, O. 2023b. Analysis of decision-making processes for strategic technology investments in Swedish large-scale forestry. In: The 55th International Symposium on Forest Mechanization (FORMEC) and the 7th Forest Engineering Conference (FEC), Florence, Italy, 19-22 Sep 2023.

Mohtashami, S., Hansson, L. & Eliasson, L. 2023. Estimating soil strength using GIS-based maps. In: Oyier, P. & Tas, I (red.): COFE-FETEC, Forest operations: A tool for forest management. Flagstaff, Arizona, May 23-25, 2023.

Pernestål, A., Werre, A. & Eriksson, A. 2023. Is there enough power for electrifying heavy transport? – forest industry transport as a case study. In: Proceedings of European Transport Conference (ETC), Milan, Italy, 6-8 Sep 2023.

Raoofi, Z., Huge-Brodin, M. & Pernestål, A. 2023a. Investigation of system-level impacts of electrification on the road freight transport system: a System Dynamics approach. In: Proceedings of European Transport Conference (ETC), Milan, Italy, 6-8 Sep 2023.

Raoofi, Z., Mahmoudi, M. & Pernestål, A. 2023b. What is the effect of charging infrastructure availability on electric truck adoption? An egg-chicken dynamics problem. In: 10th International Workshop on Sustainable Road Freight, Cambridge, UK, 4-5 Dec 2023.

Rossander, M., Li, S. & Lideskog, H. 2023. Automatic plant position selector for reforestation machines. In: The 55th International Symposium on Forest Mechanization (FORMEC) and the 7th Forest Engineering Conference (FEC), Florence, Italy, 19-22 Sep 2023.

Rowell, A. & Nilsson, A. 2023. Traceability in seedling logistics using RFID, and climate sensors. In: Eds. Advancing Silvicultural Technology, Umeå, Sweden, 22-24 Aug 2023.

Öhrn, P. 2023. Seasonal and site-specific variation in Norway spruce (Picea abies) response to inoculation with the spruce bark beetle-associated bluestain fungus Grosmannia europhioides. In: Global Challenges and innovative management of bark and Wood borers in planted and natural forests. Bordeaux, Institut Européen de la Forêt Cultivée: 12.

Akademiska avhandlingar

2021

2022

Enström, J. 2022. A Systems View of Advancements in Biomass Supply Chains. Mid Sweden University, Computer and Systems Science. ISBN: 978-91-89341-57-9. Lic-avhandling.

Jonsson, R. 2022. Strategic technology decision-making in Swedish large-scale forestry. SLU, Faculty of forestry. Acta Universitatis Agriculturae Sueciae 2022:53.

Mohtashami, S. 2022. GIS-based decision support systems to minimise soil impacts in logging operations. SLU, Faculty of forest sciences. Acta Universitatis Agriculturae Sueciae 2022:67.

2023

Lariviere, D. 2023. Old trees in young forests : Biodiversity management in planted conifer forests in southern Sweden. Swedish University of Agricultural Sciences, Southern Swedish Forest Research Centre, . Nr. Dr sid. Acta Universitatis Agriculturae Sueciae 2023:12.

Nordin, P. 2023. Regeneration measures in time and space: Site preparation, planting and digital tools. Linnéuniversitetet, Faculty of Technology, Department of Forestry and Wood Technology. Växjö Nr. 62 sid. Linnaeus University Dissertations 489.

Bokkapitel och övriga rapporter

2021

Björheden, R. 2021. Climate effects of forestry in the Nordic-Baltic region. SNS Forest Research Report, March 2021

Björheden, R. & Hogmark, S. 2021. Hitta ditt eget tjäderspel. Vår fågelvärld. Nr 2: 18-23.

Constantino, S. & Eliasson, L. 2021. Kostnader och intäkter i det storskaliga skogsbruket 2020. Statistiska Meddelanden Nr. JO 0307 SM 2001, Skogsstyrelsen, 22 sid.

Fjeld, D., Väätäinen, K., von Hofsten, H., Noreland, D., Callesen, I. & Lazdins, A. 2021. A common Nordic-Baltic costing frame work for road, rail and sea transport of roundwood. NIBIO Rapport Nr. 8.

Kanzian, C., Holzfeind, T., Böhm, S., Gobakken, L. R., Baier, P., Kirisits, T., Westlund, K., Eliasson, L., Kogler, C., Rauch, P. & Fjeld, D. 2021. Validated value development sub-models. GreenLane deliverable, Research Report Nr. D2.3, 60 sid.

Nisbet, T. R., Andreucci, M.-B., De Vreese, R., Högbom, L., Sonja, K., Kelly-Quinn, M., Leonardi, A., Lyubenova, M. I., Pol, P. O., Quinteiro, P., Silos, I. P. & Valatin, G. 2021. Forest Green Infrastructure to Protect Water Quality: A Step-by-Step Guide for Payment Schemes. I: Japan, P. F. N. o. H. U. i. Green Infrastructure and Climate Change Adaptation: Function, Implementation and Governance.

Vepakomma, U., Cormier, D., Hansson, L. & Talbot, B. 2021. Chapter 27 - Remote sensing at local scales for operational forestry. I. Sustainable forest management in boreal forests under climate change. Springer.

Westlund, K., Eliasson, L., Kogler, C., Rauch, P., Kanzian, C., Holzfeind, T., Gobakken, L. R. & Fjeld, D. 2021. Managerial response sub-models. GreenLane deliverable, Research Report Nr. D3.3., 14 sid.

2022

Belbo, H., Bråten, M. & Johannesson, T. 2022. Skoglig anpassning för ett ändrat klimat - kunskapssammanställning. Interreg Sverige-Norge. 31 sid.

Berlin, M. 2022. Klimatanpassade och högproduktiva plantor för framtidens skogar. I: Johansson, C., Nilsson, H.-E., Öhman, P., Jonsson, B.-G., Engberg, B. A., Englund, O. & Axbrink, I. Skogens värden – forskares reflektioner. Mittuniversitetet, Sundsvall sid: 62-63. ISBN: 978-91-89341-70-8.

Björheden, R. 2022. Ska skogen sparas eller huggas ner för klimatet? I: Johansson, C., Nilsson, H.-E., Öhman, P., Jonsson, B.-G., Engberg, B., Englund, O., Simonsson, P. & Axbrink, I. Skogens värden - forskares reflektioner. Mittuniversitetet, Sundsvall sid: 40-41. ISBN: 978-91-89341-70-8.

Calleja-Rodríguez, A., Klápště, J., Dungey, H., Graham, N., Ismael, A., García-Gil, M. R., Abrahamsson, S. & Suontama, M. 2022. Genomic Selection in Scots (Pinus sylvestris) and Radiata (Pinus radiata) Pines. I: De La Torre, A. R. (red.) The Pine Genomes. Springer International Publishing, Cham sid: 233-250. ISBN: 978-3-030-93390-6.

Djupström, L. 2022. Viljan om skogen varierar lika mycket som skogen borde variera. I: Johansson, C., Nilsson, H.-E., Öhman, P., Jonsson, B.-G., Engberg, B., Englund, O., Simonsson, P. & Axbrink, I. Skogens värden - forskares reflektioner. Mittuniversitetet, Sundsvall sid: 14-15. ISBN: 978-91-89341-70-8.

Hansson, L. 2022. Skogsbruk utan markstörningar – går det? I: Johansson, C., Nilsson, H.-E., Öhman, P., Jonsson, B.-G., Engberg, B. A., Englund, O. & Axbrink, I. Skogens värden – forskares reflektioner. Mittuniversitetet, Sundsvall sid: 110-111. ISBN: 978-91-89341-70-8.

Högbom, L. 2022. Kvävets roll i skogen. I: Johansson, C., Nilsson, H.-E., Öhman, P., Jonsson, B.-G., Engberg, B., Englund, O., Simonsson, P. & Axbrink, I. Skogens värden – forskares reflektioner. Mittuniversitetet, Sundsvall sid: 114-115. ISBN: 978-91-89341-70-8.

Liziniewicz, M. 2022. Skogsträdsförädling skapar förutsättningar för ett varierat och hållbart skogsbruk. I: Johansson, C., Nilsson, H.-E., Öhman, P., Jonsson, B.-G., Engberg, B., Englund, O., Simonsson, P. & Axbrink, I. Skogens värden – forskares reflektioner. Mittuniversitetet, Sundsvall sid: 116-117. ISBN: 978-91-89341-70-8.

Mark-Herbert, C., Nagy, E. & Thorning, A. 2022. Hållbart bostadsbyggande – trästommar i flervåningshus. I: Johansson, C., Nilsson, H.-E., Öhman, P., Jonsson, B.-G., Engberg, B., Englund, O., Simonsson, P. & Axbrink, I. Skogens värden – forskares reflektioner. Mittuniversitetet, Sundsvall sid: 148-149. ISBN: 978-91-89341-70-8.

Nisbet, T. R., Andreucci, M.-B., De Vreese, R., Högbom, L., Kay, S., Kelly-Quinn, M., Leonardi, A., Lyubenova, M. I., Pol, P. O., Quinteiro, P., Silos, I. P. & Valatin, G. 2022. Forest Green Infrastructure to Protect Water Quality: A Step-by-Step Guide for Payment Schemes. I: Nakamura, F. Green (red.) Infrastructure and Climate Change Adaptation: Function, Implementation and Governance. Springer Singapore, Singapore sid: 105-131. ISBN: 978-981-16-6791-6.

Sonesson, J. 2022. Omloppstider och ekosystemtjänster. I: Johansson, C., Nilsson, H.-E., Öhman, P., Jonsson, B.-G., Engberg, B., Englund, O., Simonsson, P. & Axbrink, I. Skogens värden – forskares reflektioner. Mittuniversitetet, Sundsvall sid: 120-121. ISBN: 978-91-89341-70-8.

Suontama, M. 2022. Skogsträdsförädling med nya utvecklade metoder möjliggör snabbare anpassning till framtidens klimat. I: Johansson, C., Nilsson, H.-E., Öhman, P., Jonsson, B.-G., Engberg, B., Englund, O., Simonsson, P. & Axbrink, I. Skogens värden – forskares reflektioner. Mittuniversitetet, Sundsvall sid: 122-123. ISBN: 978-91-89341-70-8.

Wallgren, M. 2022. Skogsbruket och beteskadorna – en verklig och en pedagogisk utmaning. I: Johansson, C., Nilsson, H.-E., Öhman, P., Jonsson, B.-G., Engberg, B., Englund, O., Simonsson, P. & Axbrink, I. Skogens värden – forskares reflektioner. Mittuniversitetet, Sundsvall sid: 126-127. ISBN: 978-91-89341-70-8.

Wilhelmsson, L. 2022a. Dagens och framtidens förädlingsindustri. Skogsbruk, virke och skogsindustriprodukter. Fries, C. Jönköping, Skogsstyrelsen. 22: 22-43.

Wilhelmsson, L. 2022b. Möjligheter att mäta, beräkna och utnyttja virkets egenskaper vid planering och skörd. Skogsbruk, virke och skogsindustriprodukter. Fries, C. Jönköping, Skogsstyrelsen. 22: 134-169.

Wilhelmsson, L. 2022c. Virkesegenskaper och förädlingsindustrin – betydelse för processer och produkter. Skogsbruk, virke och skogsindustriprodukter. Fries, C. Jönköping, Skogsstyrelsen. 22: 67-95.

Willén, E. 2022. Skogsbrukets digitalisering innebär många spännande möjligheter. I: Johansson, C., Nilsson, H.-E., Öhman, P., Jonsson, B.-G., Engberg, B., Englund, O., Simonsson, P. & Axbrink, I. Skogens värden – forskares reflektioner. Mittuniversitetet, Sundsvall sid: 124-125. ISBN: 978-91-89341-70-8.

2023

Girona, M. M., Aakala, T., Aquilué, N., Bélisle, A.-C., Chaste, E., Danneyrolles, V., Díaz-Yáñez, O., D'Orangeville, L., Grosbois, G., Hester, A., Kim, S., Kulha, N., Martin, M., Moussaoui, L., Pappas, C., Portier, J., Teitelbaum, S., Tremblay, J.-P., Svensson, J., Versluijs, M., Wallgren, M., Wang, J. & Gauthier, S. 2023. Challenges for the Sustainable Management of the Boreal Forest Under Climate Change. I: Girona, M. M., Morin, H., Gauthier, S. and Bergeron, Y. Boreal Forests in the Face of Climate Change: Sustainable Management. Springer International Publishing, Cham sid: 773-837. ISBN: 978-3-031-15988-6

Sikström, U. 2023. Tillväxtrespons efter askåterföring i bördig granskog. Energiforsk Rapport Nr. 2023: 917, 21 sid.

Vepakomma, U., Cormier, D., Hansson, L. & Talbot, B. 2023. Remote sensing at local scales for operational forestry. I: Girona, M. M., Morin, H., Gauthier, S., Bergeron, Y. Boreal Forests in the Face of Climate Change. Advances in Global Change Research. Springer. 74.

Finansieringsöversikt, tkr

	2021			2022			2023 (Prognos)			2024 (Budget)		
	Totalt	varav ram	%	Totalt	varav ram	%	Totalt	varav ram	%	Totalt	varav ram	%
FoU												
Förädling	44 138	30 629	69,4%	47 393	30 371	64,1%	45 456	28 713	63,2%	49 157	25 424	51,7%
Skogsskötsel	29 690	16 147	54,4%	32 044	17 123	53,4%	34 779	16 402	47,2%	34 953	16 549	47,3%
Driftsystem	44 708	25 746	57,6%	43 583	26 692	61,2%	42 040	27 095	64,5%	45 194	27 594	61,1%
Värdekedjor	27 042	10 284	38,0%	28 220	11 340	40,2%	30 543	10 849	35,5%	31 487	11 129	35,3%
Digitalisering	12 683	6 941	54,7%	12 282	6 611	53,8%	14 303	7 632	53,4%	16 134	8 267	51,2%
Skogens samhällsnyttor	5 777	3 250	56,3%	9 062	4 931	54,4%	9 155	5 218	57,0%	10 561	5 301	50,2%
Fröservice	2 894	0	0,0%	4 241	0	0,0%	2 040	0	0,0%	2 000	0	0,0%
Summa FoU	**166 933**	**92 997**	**55,7%**	**176 824**	**97 068**	**54,9%**	**178 316**	**95 909**	**53,8%**	**189 487**	**94 264**	**49,7%**
Övergripande EU/omvärldsanalys	3 500	3 446	98%	3 172	3 109	98%	5 010	3 826	76%	5 000	5 000	100%
Summa	**3 500**	**3 446**	**98%**	**3 172**	**3 109**	**98%**	**5 010**	**3 826**	**76%**	**5 000**	**5 000**	**100%**
Kommunikation	**10 109**	**6 931**	**69%**	**11 465**	**7 123**	**62%**	**11 921**	**7 053**	**59%**	**11 412**	**6 736**	**59%**
Summa Skogforsk	**180 542**	**103 374**	**57%**	**191 461**	**107 301**	**56%**	**195 247**	**106 788**	**55%**	**205 899**	**#####**	**51%**
Summa ramanslag 2021-2024 inkl. Föreningen	**412 000**											
Summa förbrukade ramanslag (prognos)	**423 463**	**103%**			**105%**			**103%**			**100%**	
Summa ramanslag 2021-2024 inkl. Föreningen*	**412 000**											
Föreningen* total		3 500			3 500			3 500			3 500	
Föreningen* varav ramanslag intr.medel		3 500			3 500			3 500			3 500	

Ekonomiskt resultat 2021-2024, mkr	2021	2022	2023 Prognos	2024 Budget
Nettoomsättning	177,3	186,2	195,2	205,9
Rörelseresultat	0	1,1	-4	-2,0
Årets resultat	3,6	1,9	0	-2,0

* Föreningen = Föreningen skogsträdsförädling. Föreningens anslag till Skogforsk används för att motfinansiera Formas anslag i ramprogrammet.

Personalöversikt

	1 jan 2021		1 jan 2022		1 jan 2023	
	Totalt	Varav med forskar-examen	Totalt	Varav med forskar-examen	Totalt	Varav med forskar-examen
FoI						
Skogliga akademiker	44	23	46	24	44	26
Civilingenjör (motsv)	17	8	17	8	21	10
Övriga akademiker	19	15	18	14	22	17
Summa tillsvidareanställd FoI	**80**	**46**	**81**	**46**	**87**	**53**
- varav kvinnor	25,0%		21,0%		26,4%	
Visstidsanställda I FoI	**5**		**5**		**8**	
Varav doktorander	5		5		8	
- varav kvinnor	60%		60%		38%	
Kommunikation/IT/Admin						
Skogliga akademiker	2	1	2	1	2	1
Övriga akademiker	9	1	10	1	9	1
Övriga	5		4		4	
Summa Kommunikation/IT/Admin	**16**		**16**		**15**	
- varav kvinnor	50%		50%		53%	
Fält- och laboratoriepersonal	**25**		**26**		**27**	**1**
- varav kvinnor (%)	36%		35%		37%	
Summa tillsvidareanställda	**121**		**123**		**129**	
- varav kvinnor (%)	31%		28%		32%	

Populärvetenskaplig publikation

	2021	2022	2023*
Kunskapswebbar			
Artiklar i Kunskapsbanken	87	100	67
skogforsk.se (antal besök)	392 000	346 000	328 000
skogskunskap.se (antal besök)	430 000	390 000	379 000
Sociala medier			
Facebook (antal följare)			5956
LinkedIn (antal följare)			4618
X (fd Twitter, antal följare)			2246
Instagram (antal följare)			690
Youtube (antal följare)	3905	4185	4369
Youtube (antal visningar för hela perioden)	286 943	217 795	159 674
Tryck			
Vision (antal nr)	4	4	3
Handledningar (antal)	1	4	1
Arbetsrapporter (antal)	37	34	30
Övriga rapporter/tryckt material (antal)			2
Mänskliga möten			
Kurser & Konferenser (antal deltagare)	1 103	662	639

	2021	2022	2023*
Övrigt			
Kunskapsbrev (antal utskick)	4	3	2
Instruktionsfilmer (antal)	1	12	1
Webbseminarier/Webbkurser	9	5	
Antal pressmeddelanden/webbnyheter	28	38	28
Pressklipp	582	708	354
Övriga externa produkter (antal)			

*Tom 30 nov 2023

Stiftelsen Skogsbrukets Forskningsinstitut
Uppsala Science Park, 751 83 Uppsala
Tel. 018-18 85 00
E-post: skogforsk@skogforsk.se
skogforsk.se
Organisationsnummer 817602-9786

Omslagsfoto, redaktör och layout: Charlotte Hessulf