

# GÃ¶ran StÃ¥hl

## List of Publications by Year in descending order

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101  
papers

5,018  
citations

81900

39  
h-index

95266

68  
g-index

102  
all docs

102  
docs citations

102  
times ranked

5304  
citing authors

#	ARTICLE	IF	CITATIONS
1	Plant functional traits have globally consistent effects on competition. <i>Nature</i> , 2016, 529, 204-207.	27.8	655
2	Combining national forest inventory field plots and remote sensing data for forest databases. <i>Remote Sensing of Environment</i> , 2008, 112, 1982-1999.	11.0	313
3	Adapting National Forest Inventories to changing requirements – the case of the Swedish National Forest Inventory at the turn of the 20th century. <i>Silva Fennica</i> , 2014, 48, .	1.3	161
4	Wood-inhabiting cryptogams on dead Norway spruce ( <i>Picea abies</i> ) trees in managed Swedish boreal forests. <i>Canadian Journal of Forest Research</i> , 1999, 29, 178-186.	1.7	148
5	Model-based inference for biomass estimation in a LiDAR sample survey in Hedmark County, Norway This article is one of a selection of papers from Extending Forest Inventory and Monitoring over Space and Time.. <i>Canadian Journal of Forest Research</i> , 2011, 41, 96-107.	1.7	147
6	Model-assisted estimation of biomass in a LiDAR sample survey in Hedmark County, Norway This article is one of a selection of papers from Extending Forest Inventory and Monitoring over Space and Time.. <i>Canadian Journal of Forest Research</i> , 2011, 41, 83-95.	1.7	139
7	Model-assisted regional forest biomass estimation using LiDAR and InSAR as auxiliary data: A case study from a boreal forest area. <i>Remote Sensing of Environment</i> , 2011, 115, 3599-3614.	11.0	131
8	Combining UAV and Sentinel-2 auxiliary data for forest growing stock volume estimation through hierarchical model-based inference. <i>Remote Sensing of Environment</i> , 2018, 204, 485-497.	11.0	120
9	Functions for below-ground biomass of <i>Pinus sylvestris</i> , <i>Picea abies</i> , <i>Betula pendula</i> and <i>Betula pubescens</i> in Sweden. <i>Scandinavian Journal of Forest Research</i> , 2006, 21, 84-93.	1.4	112
10	National Inventory of Landscapes in Sweden (NILS) – scope, design, and experiences from establishing a multiscale biodiversity monitoring system. <i>Environmental Monitoring and Assessment</i> , 2011, 173, 579-595.	2.7	107
11	Individual tree biomass equations or biomass expansion factors for assessment of carbon stock changes in living biomass – A comparative study. <i>Forest Ecology and Management</i> , 2012, 270, 78-84.	3.2	106
12	Model-assisted estimation of change in forest biomass over an 11 year period in a sample survey supported by airborne LiDAR: A case study with post-stratification to provide ‘‘activity data’’. <i>Remote Sensing of Environment</i> , 2013, 128, 299-314.	11.0	106
13	Use of models in large-area forest surveys: comparing model-assisted, model-based and hybrid estimation. <i>Forest Ecosystems</i> , 2016, 3, .	3.1	105
14	Estimating biomass in Hedmark County, Norway using national forest inventory field plots and airborne laser scanning. <i>Remote Sensing of Environment</i> , 2012, 123, 443-456.	11.0	102
15	Comparison of precision of biomass estimates in regional field sample surveys and airborne LiDAR-assisted surveys in Hedmark County, Norway. <i>Remote Sensing of Environment</i> , 2013, 130, 108-120.	11.0	88
16	A Three-step Approach for Modelling Tree Mortality in Swedish Forests. <i>Scandinavian Journal of Forest Research</i> , 2001, 16, 455-466.	1.4	82
17	A STAGE-BASED MATRIX MODEL FOR DECAY-CLASS DYNAMICS OF WOODY DEBRIS. , 2002, 12, 773-781.		80
18	Model-assisted estimation of growing stock volume using different combinations of LiDAR and Landsat data as auxiliary information. <i>Remote Sensing of Environment</i> , 2015, 158, 431-440.	11.0	80

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19	Estimation of the biomass stock of trees in Sweden: comparison of biomass equations and age-dependent biomass expansion factors. <i>Annals of Forest Science</i> , 2005, 62, 845-851.	2.0	79
20	Forest biomass estimation over three distinct forest types using TanDEM-X InSAR data and simulated GEDI lidar data. <i>Remote Sensing of Environment</i> , 2019, 232, 111283.	11.0	79
21	Biomass conversion factors (density and carbon concentration) by decay classes for dead wood of <i>Pinus sylvestris</i> , <i>Picea abies</i> and <i>Betula</i> spp. in boreal forests of Sweden. <i>Forest Ecology and Management</i> , 2007, 243, 19-27.	3.2	76
22	Assessing the accuracy of regional LiDAR-based biomass estimation using a simulation approach. <i>Remote Sensing of Environment</i> , 2012, 123, 579-592.	11.0	75
23	Dead wood availability in managed Swedish forests – Policy outcomes and implications for biodiversity. <i>Forest Ecology and Management</i> , 2016, 376, 174-182.	3.2	73
24	Estimating Quebec provincial forest resources using ICESat/GLAS. <i>Canadian Journal of Forest Research</i> , 2009, 39, 862-881.	1.7	66
25	Monitoring trees outside forests: a review. <i>Environmental Monitoring and Assessment</i> , 2015, 187, 600.	2.7	65
26	Estimating Dead Wood During National Forest Inventories: A Review of Inventory Methodologies and Suggestions for Harmonization. <i>Environmental Management</i> , 2009, 44, 624-631.	2.7	64
27	Sample-Based Estimation of Greenhouse Gas Emissions From Forests – A New Approach to Account for Both Sampling and Model Errors. <i>Forest Science</i> , 2014, 60, 3-13.	1.0	62
28	Hybrid estimators for mean aboveground carbon per unit area. <i>Forest Ecology and Management</i> , 2016, 378, 44-56.	3.2	59
29	Statistical rigor in LiDAR-assisted estimation of aboveground forest biomass. <i>Remote Sensing of Environment</i> , 2016, 173, 98-108.	11.0	58
30	Statistical properties of hybrid estimators proposed for GEDI – NASA’s global ecosystem dynamics investigation. <i>Environmental Research Letters</i> , 2019, 14, 065007.	5.2	56
31	Hierarchical model-based inference for forest inventory utilizing three sources of information. <i>Annals of Forest Science</i> , 2016, 73, 895-910.	2.0	55
32	Simultaneous Estimations of Forest Parameters using Aerial Photograph Interpreted Data and the k Nearest Neighbour Method. <i>Scandinavian Journal of Forest Research</i> , 2001, 16, 67-78.	1.4	53
33	Modelling root rot incidence in Sweden using tree, site and stand variables. <i>Scandinavian Journal of Forest Research</i> , 2005, 20, 165-176.	1.4	53
34	A simulation approach for accuracy assessment of two-phase post-stratified estimation in large-area LiDAR biomass surveys. <i>Remote Sensing of Environment</i> , 2013, 133, 210-224.	11.0	53
35	Generalized Hierarchical Model-Based Estimation for Aboveground Biomass Assessment Using GEDI and Landsat Data. <i>Remote Sensing</i> , 2018, 10, 1832.	4.0	53
36	Field aspects of line intersect sampling for assessing coarse woody debris. <i>Forest Ecology and Management</i> , 1999, 119, 163-170.	3.2	51

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37	Point relascope sampling of downed coarse woody debris. Canadian Journal of Forest Research, 1999, 29, 1718-1726.	1.7	49
38	Discerning environmental factors affecting current tree growth in Central Europe. Science of the Total Environment, 2016, 573, 541-554.	8.0	47
39	Tree rings as indicators of growth periodicity of acacias in the Rift Valley of Ethiopia. Forest Ecology and Management, 1999, 116, 107-117.	3.2	46
40	The contribution of trees outside forests to national tree biomass and carbon stocks—a comparative study across three continents. Environmental Monitoring and Assessment, 2015, 187, 4197.	2.7	42
41	Assessing Deadwood Using Harmonized National Forest Inventory Data. Forest Science, 2012, 58, 269-283.	1.0	41
42	Assessing components of the model-based mean square error estimator for remote sensing assisted forest applications. Canadian Journal of Forest Research, 2018, 48, 642-649.	1.7	40
43	Bridging National and Reference Definitions for Harmonizing Forest Statistics. Forest Science, 2012, 58, 214-223.	1.0	38
44	Preparing emission reporting from forests: use of National Forest Inventories in European countries. Silva Fennica, 2008, 42, .	1.3	37
45	Lidar sampling — Using an airborne profiler to estimate forest biomass in Hedmark County, Norway. Remote Sensing of Environment, 2012, 123, 563-578.	11.0	36
46	Surveyor consistency in presence/absence sampling for monitoring vegetation in a boreal forest. Forest Ecology and Management, 2005, 212, 109-117.	3.2	33
47	Effects of sample size and model form on the accuracy of model-based estimators of growing stock volume. Canadian Journal of Forest Research, 2015, 45, 1524-1534.	1.7	33
48	Mapping aboveground biomass and its prediction uncertainty using LiDAR and field data, accounting for tree-level allometric and LiDAR model errors. Forest Ecosystems, 2020, 7, .	3.1	31
49	Forest certification and Swedish wood supply. Forest Policy and Economics, 2007, 9, 452-463.	3.4	29
50	Increased spruce tree growth in Central Europe since 1960s. Science of the Total Environment, 2018, 619-620, 1637-1647.	8.0	29
51	Monitoring landscape metrics by point sampling: accuracy in estimating Shannon's diversity and edge density. Environmental Monitoring and Assessment, 2010, 164, 403-421.	2.7	28
52	Data Assimilation in Forest Inventory: First Empirical Results. Forests, 2015, 6, 4540-4557.	2.1	28
53	Adapting forest health assessments to changing perspectives on threats—a case example from Sweden. Environmental Monitoring and Assessment, 2012, 184, 2453-2464.	2.7	26
54	Large-scale estimation of aboveground biomass in miombo woodlands using airborne laser scanning and national forest inventory data. Remote Sensing of Environment, 2016, 186, 626-636.	11.0	26

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55	Data assimilation in stand-level forest inventories. <i>Canadian Journal of Forest Research</i> , 2013, 43, 1104-1113.	1.7	24
56	Effects of positional errors in model-assisted and model-based estimation of growing stock volume. <i>Remote Sensing of Environment</i> , 2016, 172, 101-108.	11.0	24
57	Hybrid three-phase estimators for large-area forest inventory using ground plots, airborne lidar, and space lidar. <i>Remote Sensing of Environment</i> , 2017, 197, 85-97.	11.0	24
58	Functions for multi-phase assessment of biomass in acacia woodlands of the Rift Valley of Ethiopia. <i>Forest Ecology and Management</i> , 1998, 105, 79-90.	3.2	22
59	Characterizing Uncertainty in Forest Remote Sensing Studies. <i>Remote Sensing</i> , 2020, 12, 505.	4.0	21
60	Critical point relascope sampling for unbiased volume estimation of downed coarse woody debris. <i>Forestry</i> , 2005, 78, 417-431.	2.3	20
61	Regional Forest Inventory using an Airborne Profiling LiDAR (<Special Issue>Silvilaser). <i>Journal of Forest Planning</i> , 2008, 13, 287-294.	0.1	18
62	Spatially consistent nearest neighbor imputation of forest stand data. <i>Remote Sensing of Environment</i> , 2009, 113, 546-553.	11.0	16
63	Remote sensing-assisted data assimilation and simultaneous inference for forest inventory. <i>Remote Sensing of Environment</i> , 2019, 234, 111431.	11.0	16
64	Comparing frameworks for biomass prediction for the Global Ecosystem Dynamics Investigation. <i>Remote Sensing of Environment</i> , 2022, 278, 113074.	11.0	16
65	Harmonizing Greenhouse Gas Reporting from European Forests: Case Examples and Implications for European Union Level Reporting. <i>Forest Science</i> , 2012, 58, 248-256.	1.0	15
66	Transect relascope sampling for assessing coarse woody debris: The case of a $\frac{\pi}{2}$ relascope angle. <i>Scandinavian Journal of Forest Research</i> , 1997, 12, 375-381.	1.4	14
67	Optimal stand level forest inventory intensities under deterministic and stochastic stumpage value assumptions. <i>Scandinavian Journal of Forest Research</i> , 1994, 9, 405-412.	1.4	13
68	Assessing Error Correlations in Remote Sensing-Based Estimates of Forest Attributes for Improved Composite Estimation. <i>Remote Sensing</i> , 2018, 10, 667.	4.0	13
69	Merging National Forest and National Forest Health Inventories to Obtain an Integrated Forest Resource Inventory – Experiences from Bavaria, Slovenia and Sweden. <i>PLoS ONE</i> , 2014, 9, e100157.	2.5	13
70	On the Field Performance of Transect Relascope Sampling for Assessing Downed Coarse Woody Debris. <i>Scandinavian Journal of Forest Research</i> , 1999, 14, 552-557.	1.4	12
71	Improved Prediction of Forest Variables Using Data Assimilation of Interferometric Synthetic Aperture Radar Data. <i>Canadian Journal of Remote Sensing</i> , 2017, 43, 374-383.	2.4	12
72	How much can natural resource inventory benefit from finer resolution auxiliary data?. <i>Remote Sensing of Environment</i> , 2018, 209, 31-40.	11.0	12

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73	Multiple drivers of large-scale lichen decline in boreal forest canopies. <i>Global Change Biology</i> , 2022, 28, 3293-3309.	9.5	11
74	Two-phase approaches to point and transect relascope sampling of downed logs. <i>Canadian Journal of Forest Research</i> , 2001, 31, 971-977.	1.7	9
75	Burial of downed deadwood is strongly affected by log attributes, forest ground vegetation, edaphic conditions, and climate zones. <i>Canadian Journal of Forest Research</i> , 2016, 46, 1451-1457.	1.7	9
76	A framework for evaluating data acquisition strategies for analyses of sustainable forestry at national level. <i>Scandinavian Journal of Forest Research</i> , 2006, 21, 94-105.	1.4	8
77	A poststratified ratio estimator for model-assisted biomass estimation in sample-based airborne laser scanning surveys. <i>Canadian Journal of Forest Research</i> , 2016, 46, 1386-1395.	1.7	8
78	Improving the precision of sample-based forest damage inventories through two-phase sampling and post-stratification using remotely sensed auxiliary information. <i>Environmental Monitoring and Assessment</i> , 2016, 188, 213.	2.7	8
79	Environmental effects of brushwood harvesting for bioenergy. <i>Forest Ecology and Management</i> , 2017, 383, 85-98.	3.2	8
80	Informative plot sizes in presence-absence sampling of forest floor vegetation. <i>Methods in Ecology and Evolution</i> , 2017, 8, 1284-1291.	5.2	8
81	Rapid Changes in Ground Vegetation of Mature Boreal Forests—An Analysis of Swedish National Forest Inventory Data. <i>Forests</i> , 2021, 12, 475.	2.1	7
82	Interpolating and Extrapolating Information from Periodic Forest Surveys for Annual Greenhouse Gas Reporting. <i>Forest Science</i> , 2012, 58, 236-247.	1.0	6
83	Restricted imputation for improving spatial consistency in landscape level data for forest scenario analysis. <i>Forest Ecology and Management</i> , 2012, 272, 61-68.	3.2	6
84	Conditioning post-stratified inference following two-stage, equal-probability sampling. <i>Environmental and Ecological Statistics</i> , 2016, 23, 141-154.	3.5	6
85	Kriging prediction of stand-level forest information using mobile laser scanning data adjusted for nondetection. <i>Canadian Journal of Forest Research</i> , 2017, 47, 1257-1265.	1.7	6
86	Unrestricted guided transect sampling for surveying sparse species. <i>Canadian Journal of Forest Research</i> , 2007, 37, 2575-2586.	1.7	5
87	Assessment of bias due to random measurement errors in stem volume growth estimation by the Swedish National Forest Inventory. <i>Scandinavian Journal of Forest Research</i> , 2013, 28, 174-183.	1.4	5
88	Potential of using data assimilation to support forest planning. <i>Canadian Journal of Forest Research</i> , 2017, 47, 690-695.	1.7	5
89	A new prediction-based variance estimator for two-stage model-assisted surveys of forest resources. <i>Remote Sensing of Environment</i> , 2017, 192, 1-11.	11.0	5
90	Data Assimilation of Growing Stock Volume Using a Sequence of Remote Sensing Data from Different Sensors. <i>Canadian Journal of Remote Sensing</i> , 2022, 48, 127-143.	2.4	5

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91	Determining sample size in national forest inventories by cost-plus-loss analysis: an exploratory case study. <i>European Journal of Forest Research</i> , 2012, 131, 339-346.	2.5	4
92	The choice of definition has a large effect on reported quantities of dead wood in boreal forest. <i>Scandinavian Journal of Forest Research</i> , 2014, , 1-29.	1.4	4
93	Forest damage inventory using the local pivotal sampling method. <i>Canadian Journal of Forest Research</i> , 2017, 47, 357-365.	1.7	4
94	Generalizing systematic adaptive cluster sampling for forest ecosystem inventory. <i>Forest Ecology and Management</i> , 2021, 489, 119051.	3.2	4
95	Estimating density from presence/absence data in clustered populations. <i>Methods in Ecology and Evolution</i> , 2020, 11, 390-402.	5.2	3
96	Cross-classes domain inference with network sampling for natural resource inventory. <i>Forest Ecosystems</i> , 2022, 9, 100029.	3.1	3
97	Relascope sampling for crown ratio estimation. <i>Canadian Journal of Forest Research</i> , 2013, 43, 459-468.	1.7	2
98	Assessing Uncertainty: Sample Size Trade-Offs in the Development and Application of Carbon Stock Models. <i>Forest Science</i> , 2017, 63, 402-412.	1.0	2
99	Use of Stereology in Forest Inventories – A Brief History and Prospects for the Future. <i>Forests</i> , 2018, 9, 251.	2.1	2
100	Presence – absence sampling for estimating plant density using survey data with variable plot size. <i>Methods in Ecology and Evolution</i> , 2020, 11, 580-590.	5.2	2
101	On the Field Performance of Transect Relascope Sampling for Assessing Downed Coarse Woody Debris. <i>Scandinavian Journal of Forest Research</i> , 1999, 14, 552-557.	1.4	1