

# Hans Verbeeck

## List of Publications by Year in Descending Order

**Source:** <https://exaly.com/author-pdf/7894231/hans-verbeeck-publications-by-year.pdf>

**Version:** 2024-04-09

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

110 papers	4,998 citations	32 h-index	69 g-index
150 ext. papers	6,652 ext. citations	7.9 avg, IF	4.86 L-index

#	Paper	IF	Citations
110	Quantifying tropical forest structure through terrestrial and UAV laser scanning fusion in Australian rainforests. <i>Remote Sensing of Environment</i> , <b>2022</b> , 271, 112912	13.2	2
109	A comprehensive framework for assessing the accuracy and uncertainty of global above-ground biomass maps. <i>Remote Sensing of Environment</i> , <b>2022</b> , 272, 112917	13.2	2
108	Aboveground biomass density models for NASA's Global Ecosystem Dynamics Investigation (GEDI) lidar mission. <i>Remote Sensing of Environment</i> , <b>2022</b> , 270, 112845	13.2	11
107	Liana optical traits increase tropical forest albedo and reduce ecosystem productivity. <i>Global Change Biology</i> , <b>2022</b> , 28, 227-244	11.4	1
106	Quantifying Tropical Forest Stand Structure Through Terrestrial and UAV Laser Scanning Fusion <b>2021</b> ,		1
105	Microclimatic edge-to-interior gradients of European deciduous forests. <i>Agricultural and Forest Meteorology</i> , <b>2021</b> , 311, 108699	5.8	1
104	Taxonomic, phylogenetic and functional diversity of understorey plants respond differently to environmental conditions in European forest edges. <i>Journal of Ecology</i> , <b>2021</b> , 109, 2629-2648	6	3
103	Resistance of African tropical forests to an extreme climate anomaly. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2021</b> , 118,	11.5	10
102	Small scale environmental variation modulates plant defence syndromes of understorey plants in deciduous forests of Europe. <i>Global Ecology and Biogeography</i> , <b>2021</b> , 30, 205-219	6.1	5
101	Drivers of carbon stocks in forest edges across Europe. <i>Science of the Total Environment</i> , <b>2021</b> , 759, 143407	49.2	11
100	Unraveling the relative role of light and water competition between lianas and trees in tropical forests: A vegetation model analysis. <i>Journal of Ecology</i> , <b>2021</b> , 109, 519-540	6	6
99	Comparable canopy and soil free-living nitrogen fixation rates in a lowland tropical forest. <i>Science of the Total Environment</i> , <b>2021</b> , 754, 142202	10.2	3
98	Contrasting responses of woody and herbaceous vegetation to altered rainfall characteristics in the Sahel. <i>Biogeosciences</i> , <b>2021</b> , 18, 77-93	4.6	1
97	High photosynthetic capacity of Sahelian C <sub>3</sub> and C <sub>4</sub> plants. <i>Photosynthesis Research</i> , <b>2021</b> , 147, 161-175	3.7	4
96	Ideas and perspectives: patterns of soil CO <sub>2</sub> , CH <sub>4</sub> , and N <sub>2</sub> O fluxes along an altitudinal gradient: A pilot study from an Ecuadorian neotropical montane forest. <i>Biogeosciences</i> , <b>2021</b> , 18, 413-421	4.6	0
95	Understanding 3D structural complexity of individual Scots pine trees with different management history. <i>Ecology and Evolution</i> , <b>2021</b> , 11, 2561-2572	2.8	8
94	Consequences of vertical basic wood density variation on the estimation of aboveground biomass with terrestrial laser scanning. <i>Trees - Structure and Function</i> , <b>2021</b> , 35, 671-684	2.6	4

93	Biomass Expansion Factors for Hedgerow-Grown Trees Derived from Terrestrial LiDAR. <i>Bioenergy Research</i> , <b>2021</b> , 14, 561-574	3.1	3
92	Lianas and trees exhibit divergent intrinsic water-use efficiency along elevational gradients in South American and African tropical forests. <i>Global Ecology and Biogeography</i> , <b>2021</b> , 30, 2259	6.1	2
91	Fire-derived phosphorus fertilization of African tropical forests. <i>Nature Communications</i> , <b>2021</b> , 12, 5129	17.4	2
90	High aboveground carbon stock of African tropical montane forests. <i>Nature</i> , <b>2021</b> , 596, 536-542	50.4	10
89	Taking the pulse of Earth's tropical forests using networks of highly distributed plots. <i>Biological Conservation</i> , <b>2021</b> , 260, 108849	6.2	15
88	The global forest above-ground biomass pool for 2010 estimated from high-resolution satellite observations. <i>Earth System Science Data</i> , <b>2021</b> , 13, 3927-3950	10.5	26
87	Forest above-ground volume assessments with terrestrial laser scanning: a ground-truth validation experiment in temperate, managed forests. <i>Annals of Botany</i> , <b>2021</b> , 128, 805-819	4.1	1
86	Lianification or liana invasion? Is there a difference?. <i>Frontiers in Ecology and the Environment</i> , <b>2021</b> , 19, 377-378	5.5	1
85	Characterising Termite Mounds in a Tropical Savanna with UAV Laser Scanning. <i>Remote Sensing</i> , <b>2021</b> , 13, 476	5	4
84	Century-long apparent decrease in intrinsic water-use efficiency with no evidence of progressive nutrient limitation in African tropical forests. <i>Global Change Biology</i> , <b>2020</b> , 26, 4449-4461	11.4	7
83	Long-term thermal sensitivity of Earth's tropical forests. <i>Science</i> , <b>2020</b> , 368, 869-874	33.3	92
82	Historical Aerial Surveys Map Long-Term Changes of Forest Cover and Structure in the Central Congo Basin. <i>Remote Sensing</i> , <b>2020</b> , 12, 638	5	3
81	Asynchronous carbon sink saturation in African and Amazonian tropical forests. <i>Nature</i> , <b>2020</b> , 579, 80-87	50.4	202
80	Structural variation of forest edges across Europe. <i>Forest Ecology and Management</i> , <b>2020</b> , 462, 117929	3.9	10
79	Liana communities exhibit different species composition, diversity and community structure across forest types in the Congo Basin. <i>Biotropica</i> , <b>2020</b> , 52, 651-663	2.3	1
78	Causes and consequences of pronounced variation in the isotope composition of plant xylem water. <i>Biogeosciences</i> , <b>2020</b> , 17, 4853-4870	4.6	11
77	TRY plant trait database - enhanced coverage and open access. <i>Global Change Biology</i> , <b>2020</b> , 26, 119-188	11.4	399
76	Improved Supervised Learning-Based Approach for Leaf and Wood Classification From LiDAR Point Clouds of Forests. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , <b>2020</b> , 58, 3057-3070	8.1	32

75	Terrestrial laser scanning for non-destructive estimates of liana stem biomass. <i>Forest Ecology and Management</i> , <b>2020</b> , 456, 117751	3.9	8
74	Terrestrial laser scanning in forest ecology: Expanding the horizon. <i>Remote Sensing of Environment</i> , <b>2020</b> , 251, 112102	13.2	79
73	Increasing liana frequency in temperate European forest understories is driven by ivy. <i>Frontiers in Ecology and the Environment</i> , <b>2020</b> , 18, 550-557	5.5	4
72	Within-Site Variability of Liana Wood Anatomical Traits: A Case Study in Laussat, French Guiana. <i>Forests</i> , <b>2020</b> , 11, 523	2.8	1
71	Thirty Years of Land Cover and Fraction Cover Changes over the Sudano-Sahel Using Landsat Time Series. <i>Remote Sensing</i> , <b>2020</b> , 12, 3817	5	6
70	Evaluating the potential of full-waveform lidar for mapping pan-tropical tree species richness. <i>Global Ecology and Biogeography</i> , <b>2020</b> , 29, 1799-1816	6.1	19
69	Lianas in silico, ecological insights from a model of structural parasitism. <i>Ecological Modelling</i> , <b>2020</b> , 431, 109159	3	1
68	Long-term recovery of the functional community assembly and carbon pools in an African tropical forest succession. <i>Biotropica</i> , <b>2019</b> , 51, 319-329	2.3	10
67	Air temperature optima of vegetation productivity across global biomes. <i>Nature Ecology and Evolution</i> , <b>2019</b> , 3, 772-779	12.3	128
66	Large-sized rare tree species contribute disproportionately to functional diversity in resource acquisition in African tropical forest. <i>Ecology and Evolution</i> , <b>2019</b> , 9, 4349-4361	2.8	7
65	Modeling the impact of liana infestation on the demography and carbon cycle of tropical forests. <i>Global Change Biology</i> , <b>2019</b> , 25, 3767-3780	11.4	19
64	Semi-automatic extraction of liana stems from terrestrial LiDAR point clouds of tropical rainforests. <i>ISPRS Journal of Photogrammetry and Remote Sensing</i> , <b>2019</b> , 154, 114-126	11.8	12
63	Time for a Plant Structural Economics Spectrum. <i>Frontiers in Forests and Global Change</i> , <b>2019</b> , 2,	3.7	25
62	Contrasting nitrogen fluxes in African tropical forests of the Congo Basin. <i>Ecological Monographs</i> , <b>2019</b> , 89, e01342	9	23
61	Disentangling how management affects biomass stock and productivity of tropical secondary forests fallows. <i>Science of the Total Environment</i> , <b>2019</b> , 659, 101-114	10.2	9
60	Assessing the role of megafauna in tropical forest ecosystems and biogeochemical cycles [The potential of vegetation models. <i>Ecography</i> , <b>2018</b> , 41, 1934-1954	6.5	19
59	Phylogenetic classification of the world's tropical forests. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2018</b> , 115, 1837-1842	11.5	107
58	High fire-derived nitrogen deposition on central African forests. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2018</b> , 115, 549-554	11.5	35

57	Reconciling biodiversity and carbon stock conservation in an Afrotropical forest landscape. <i>Science Advances</i> , <b>2018</b> , 4, eaar6603	14.3	22
56	Vegetation demographics in Earth System Models: A review of progress and priorities. <i>Global Change Biology</i> , <b>2018</b> , 24, 35-54	11.4	309
55	Effects of Tree Trunks on Estimation of Clumping Index and LAI from HemiView and Terrestrial LiDAR. <i>Forests</i> , <b>2018</b> , 9, 144	2.8	12
54	Liana and tree below-ground water competition-evidence for water resource partitioning during the dry season. <i>Tree Physiology</i> , <b>2018</b> , 38, 1071-1083	4.2	33
53	Terrestrial Laser Scanning to Detect Liana Impact on Forest Structure. <i>Remote Sensing</i> , <b>2018</b> , 10, 810	5	10
52	A generic pixel-to-point comparison for simulated large-scale ecosystem properties and ground-based observations: an example from the Amazon region. <i>Geoscientific Model Development</i> , <b>2018</b> , 11, 5203-5215	6.3	4
51	Refining Species Traits in a Dynamic Vegetation Model to Project the Impacts of Climate Change on Tropical Trees in Central Africa. <i>Forests</i> , <b>2018</b> , 9, 722	2.8	5
50	Pan-tropical prediction of forest structure from the largest trees. <i>Global Ecology and Biogeography</i> , <b>2018</b> , 27, 1366-1383	6.1	52
49	Model performance of tree height-diameter relationships in the central Congo Basin. <i>Annals of Forest Science</i> , <b>2017</b> , 74, 1	3.1	29
48	Functional community structure of African monodominant forest influenced by local environmental filtering. <i>Ecology and Evolution</i> , <b>2017</b> , 7, 295-304	2.8	29
47	Plant measurements on African tropical <i>Maesopsis eminii</i> seedlings contradict pioneering water use behaviour. <i>Environmental and Experimental Botany</i> , <b>2017</b> , 135, 27-37	5.9	8
46	Impacts of future deforestation and climate change on the hydrology of the Amazon Basin: a multi-model analysis with a new set of land-cover change scenarios. <i>Hydrology and Earth System Sciences</i> , <b>2017</b> , 21, 1455-1475	5.5	53
45	The ecology of <i>Maesopsis eminii</i> Engl. in tropical Africa. <i>African Journal of Ecology</i> , <b>2017</b> , 55, 679-692	0.8	8
44	Functional Composition of Tree Communities Changed Topsoil Properties in an Old Experimental Tropical Plantation. <i>Ecosystems</i> , <b>2017</b> , 20, 861-871	3.9	9
43	Spatial Distribution of Carbon Stored in Forests of the Democratic Republic of Congo. <i>Scientific Reports</i> , <b>2017</b> , 7, 15030	4.9	34
42	Parallel functional and stoichiometric trait shifts in South American and African forest communities with elevation. <i>Biogeosciences</i> , <b>2017</b> , 14, 5313-5321	4.6	8
41	Modelling Amazonian Carbon Budgets and Vegetation Dynamics in a Changing Climate. <i>Ecological Studies</i> , <b>2016</b> , 331-366	1.1	2
40	Variation in stem mortality rates determines patterns of above-ground biomass in Amazonian forests: implications for dynamic global vegetation models. <i>Global Change Biology</i> , <b>2016</b> , 22, 3996-4013	11.4	99

39	Carbon and energy fluxes in cropland ecosystems: a model-data comparison. <i>Biogeochemistry</i> , <b>2016</b> , 129, 53-76	3.8	17
38	Environmental impact assessment and monetary ecosystem service valuation of an ecosystem under different future environmental change and management scenarios; a case study of a Scots pine forest. <i>Journal of Environmental Management</i> , <b>2016</b> , 173, 79-94	7.9	23
37	The importance of including lianas in global vegetation models. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2016</b> , 113, E4	11.5	29
36	An integrated pan-tropical biomass map using multiple reference datasets. <i>Global Change Biology</i> , <b>2016</b> , 22, 1406-20	11.4	358
35	Functional identity explains carbon sequestration in a 77-year-old experimental tropical plantation. <i>Ecosphere</i> , <b>2015</b> , 6, art198	3.1	12
34	Forest resilience and tipping points at different spatio-temporal scales: approaches and challenges. <i>Journal of Ecology</i> , <b>2015</b> , 103, 5-15	6	166
33	Improving the ISBA&lt;sub>CC&lt;/sub> land surface model simulation of water and carbon fluxes and stocks over the Amazon forest. <i>Geoscientific Model Development</i> , <b>2015</b> , 8, 1709-1727	6.3	24
32	Aboveground vs. Belowground Carbon Stocks in African Tropical Lowland Rainforest: Drivers and Implications. <i>PLoS ONE</i> , <b>2015</b> , 10, e0143209	3.7	19
31	Mechanisms of water supply and vegetation demand govern the seasonality and magnitude of evapotranspiration in Amazonia and Cerrado. <i>Agricultural and Forest Meteorology</i> , <b>2014</b> , 191, 33-50	5.8	81
30	Characterizing the diurnal patterns of errors in the prediction of evapotranspiration by several land-surface models: An NACP analysis. <i>Journal of Geophysical Research G: Biogeosciences</i> , <b>2014</b> , 119, 1458-1473	3.7	55
29	Testing conceptual and physically based soil hydrology schemes against observations for the Amazon Basin. <i>Geoscientific Model Development</i> , <b>2014</b> , 7, 1115-1136	6.3	44
28	Conventional tree height-diameter relationships significantly overestimate aboveground carbon stocks in the Central Congo Basin. <i>Nature Communications</i> , <b>2013</b> , 4, 2269	17.4	81
27	Evaluation of continental carbon cycle simulations with North American flux tower observations. <i>Ecological Monographs</i> , <b>2013</b> , 83, 531-556	9	63
26	Overview of the Large-Scale BiosphereAtmosphere Experiment in Amazonia Data Model Intercomparison Project (LBA-DMIP). <i>Agricultural and Forest Meteorology</i> , <b>2013</b> , 182-183, 111-127	5.8	49
25	Can decision rules simulate carbon allocation for years with contrasting and extreme weather conditions? A case study for three temperate beech forests. <i>Ecological Modelling</i> , <b>2013</b> , 263, 42-55	3	14
24	Inter-annual variability of carbon and water fluxes in Amazonian forest, Cerrado and pasture sites, as simulated by terrestrial biosphere models. <i>Agricultural and Forest Meteorology</i> , <b>2013</b> , 182-183, 145-155	5.8	27
23	Above-ground biomass and structure of 260 African tropical forests. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , <b>2013</b> , 368, 20120295	5.8	204
22	Terrestrial biosphere model performance for inter-annual variability of land-atmosphere CO <sub>2</sub> exchange. <i>Global Change Biology</i> , <b>2012</b> , 18, 1971-1987	11.4	191

21	Impact of hydrological variations on modeling of peatland CO <sub>2</sub> fluxes: Results from the North American Carbon Program site synthesis. <i>Journal of Geophysical Research</i> , <b>2012</b> , 117,		42
20	A model-data comparison of gross primary productivity: Results from the North American Carbon Program site synthesis. <i>Journal of Geophysical Research</i> , <b>2012</b> , 117, n/a-n/a		239
19	Terrestrial biosphere models need better representation of vegetation phenology: results from the North American Carbon Program Site Synthesis. <i>Global Change Biology</i> , <b>2012</b> , 18, 566-584	11.4	481
18	Does canopy mean nitrogen concentration explain variation in canopy light use efficiency across 14 contrasting forest sites?. <i>Tree Physiology</i> , <b>2012</b> , 32, 200-18	4.2	19
17	Seasonal patterns of CO <sub>2</sub> fluxes in Amazon forests: Fusion of eddy covariance data and the ORCHIDEE model. <i>Journal of Geophysical Research</i> , <b>2011</b> , 116,		60
16	Characterizing the performance of ecosystem models across time scales: A spectral analysis of the North American Carbon Program site-level synthesis. <i>Journal of Geophysical Research</i> , <b>2011</b> , 116,		66
15	Long-term scenarios of the invasive black cherry in pine-oak forest: Impact of regeneration success. <i>Acta Oecologica</i> , <b>2011</b> , 37, 203-211	1.7	6
14	Tropical forests: Include Congo basin. <i>Nature</i> , <b>2011</b> , 479, 179	50.4	15
13	A model-data intercomparison of CO <sub>2</sub> exchange across North America: Results from the North American Carbon Program site synthesis. <i>Journal of Geophysical Research</i> , <b>2010</b> , 115,		216
12	Multi-year model analysis of GPP in a temperate beech forest in France. <i>Ecological Modelling</i> , <b>2008</b> , 210, 85-103	3	24
11	Stored water use and transpiration in Scots pine: a modeling analysis with ANAFORE. <i>Tree Physiology</i> , <b>2007</b> , 27, 1671-85	4.2	45
10	Parameter sensitivity and uncertainty of the forest carbon flux model FORUG: a Monte Carlo analysis. <i>Tree Physiology</i> , <b>2006</b> , 26, 807-17	4.2	83
9	Inventory-based carbon stock of Flemish forests: a comparison of European biomass expansion factors. <i>Annals of Forest Science</i> , <b>2004</b> , 61, 677-682	3.1	24
8	Carbon stock changes and carbon sequestration potential of Flemish cropland soils. <i>Global Change Biology</i> , <b>2003</b> , 9, 1193-1203	11.4	68
7	Diurnal variation in the isotope composition of plant xylem water biases the depth of root-water uptake estimates		2
6	Parallel functional and stoichiometric trait shifts in South-American and African forest communities with elevation		2
5	The global forest above-ground biomass pool for 2010 estimated from high-resolution satellite observations		8
4	Using terrestrial laser scanning to constrain forest ecosystem structure and functions in the Ecosystem Demography model (ED2.2)		2

3	Liana optical traits increase tropical forest albedo and reduce ecosystem productivity		1
2	Lianas Significantly Reduce Aboveground and Belowground Carbon Storage: A Virtual Removal Experiment. <i>Frontiers in Forests and Global Change</i> ,4,	3.7	1
1	Why can we detect lianas from space?		1