Miska Luoto

List of Publications by Year
in descending order

146	12,135	44069 48	29157 104
papers	citations	h-index	g-index

160	160	160	14997
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Maintaining forest cover to enhance temperature buffering under future climate change. Science of the Total Environment, 2022, 810, 151338.	8.0	39
2	Relationships between aboveâ€ground plant traits and carbon cycling in tundra plant communities. Journal of Ecology, 2022, 110, 700-716.	4.0	21
3	Impacts of permafrost degradation on infrastructure. Nature Reviews Earth & Environment, 2022, 3, 24-38.	29.7	150
4	Modelling spatioâ€temporal soil moisture dynamics in mountain tundra. Hydrological Processes, 2022, 36, .	2.6	5
5	Global maps of soil temperature. Global Change Biology, 2022, 28, 3110-3144.	9.5	113
6	New high-resolution estimates of the permafrost thermal state and hydrothermal conditions over the Northern Hemisphere. Earth System Science Data, 2022, 14, 865-884.	9.9	68
7	Distance decay 2.0 â€“ A global synthesis of taxonomic and functional turnover in ecological communities. Global Ecology and Biogeography, 2022, 31, 1399-1421.	5.8	40
8	Geomorphological processes shape plant community traits in the Arctic. Global Ecology and Biogeography, 2022, 31, 1381-1398.	5.8	7
9	Competition mediates understorey species range shifts under climate change. Journal of Ecology, 2022, 110, 1813-1825.	4.0	6
10	From white to green: Snow cover loss and increased vegetation productivity in the European Alps. Science, 2022, 376, 1119-1122.	12.6	64
11	Microclimate temperature variations from boreal forests to the tundra. Agricultural and Forest Meteorology, 2022, 323, 109037.	4.8	10
12	In-depth characterization of denitrifier communities across different soil ecosystems in the tundra. Environmental Microbiomes, 2022, 17, .	5.0	25
13	The activity and functions of soil microbial communities in the Finnish sub-Arctic vary across vegetation types. FEMS Microbiology Ecology, 2022, 98, .	2.7	8
14	Consistent traitâ€“environment relationships within and across tundra plant communities. Nature Ecology and Evolution, 2021, 5, 458-467.	7.8	25
15	Significant shallowâ€“depth soil warming over Russia during the past 40Âyears. Global and Planetary Change, 2021, 197, 103394.	3.5	13
16	Dwarf Shrubs Impact Tundra Soils: Drier, Colder, and Less Organic Carbon. Ecosystems, 2021, 24, 1378-1392.	3.4	23
17	Exposing wind stress as a driver of fineâ€scale variation in plant communities. Journal of Ecology, 2021, 109, 2121-2136.	4.0	11
18	Forest microclimates and climate change: Importance, drivers and future research agenda. Global Change Biology, 2021, 27, 2279-2297.	9.5	330

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19	Decadal Changes in Soil and Atmosphere Temperature Differences Linked With Environment Shifts Over Northern Eurasia. Journal of Geophysical Research F: Earth Surface, 2021, 126, e2020JF005865.	2.8	6
20	Observed Decrease in Soil and Atmosphere Temperature Coupling in Recent Decades Over Northern Eurasia. Geophysical Research Letters, 2021, 48, e2021GL092500.	4.0	1
21	Snow information is required in subcontinental scale predictions of mountain plant distributions. Global Ecology and Biogeography, 2021, 30, 1502-1513.	5.8	8
22	Statistical upscaling of ecosystem CO₂ fluxes across the terrestrial tundra and boreal domain: Regional patterns and uncertainties. Global Change Biology, 2021, 27, 4040-4059.	9.5	83
23	Environmental Controls of InSARâ€Based Periglacial Ground Dynamics in a Subâ€Arctic Landscape. Journal of Geophysical Research F: Earth Surface, 2021, 126, e2021JF006175.	2.8	12
24	Warm range margin of boreal bryophytes and lichens not directly limited by temperatures. Journal of Ecology, 2021, 109, 3724-3736.	4.0	10
25	Topographic Wetness Index as a Proxy for Soil Moisture: The Importance of Flowâ€Routing Algorithm and Grid Resolution. Water Resources Research, 2021, 57, e2021WR029871.	4.2	24
26	Cryogenic land surface processes shape vegetation biomass patterns in northern European tundra. Communications Earth & Environment, 2021, 2, .	6.8	8
27	ForestTemp â€“ Subâ€canopy microclimate temperatures of European forests. Global Change Biology, 2021, 27, 6307-6319.	9.5	57
28	Species differ in their responses to wind: the underexplored link between species fineâ€scale occurrences and variation in wind stress. Journal of Vegetation Science, 2021, 32, e13093.	2.2	4
29	Fine-scale tundra vegetation patterns are strongly related to winter thermal conditions. Nature Climate Change, 2020, 10, 1143-1148.	18.8	52
30	Decreasing snow cover alters functional composition and diversity of Arctic tundra. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 21480-21487.	7.1	47
31	Fine-grained climate velocities reveal vulnerability of protected areas to climate change. Scientific Reports, 2020, 10, 1678.	3.3	21
32	Can Topographic Variation in Climate Buffer against Climate Change-Induced Population Declines in Northern Forest Birds?. Diversity, 2020, 12, 56.	1.7	8
33	Monitoring biodiversity in the Anthropocene using remote sensing in species distribution models. Remote Sensing of Environment, 2020, 239, 111626.	11.0	142
34	Climate limitation at the cold edge: contrasting perspectives from species distribution modelling and a transplant experiment. Ecography, 2020, 43, 637-647.	4.5	35
35	The effect of summer drought on the predictability of local extinctions in a butterfly metapopulation. Conservation Biology, 2020, 34, 1503-1511.	4.7	31
36	SoilTemp: A global database of nearâ€surface temperature. Global Change Biology, 2020, 26, 6616-6629.	9.5	122

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37	High potential for loss of permafrost landforms in a changing climate. Environmental Research Letters, 2020, 15, 104065.	5.2	28
38	Scale dependence of ecological assembly rules: Insights from empirical datasets and joint species distribution modelling. Journal of Ecology, 2020, 108, 1967-1977.	4.0	21
39	Influence of microclimate and geomorphological factors on alpine vegetation in the Western Swiss Alps. Earth Surface Processes and Landforms, 2019, 44, 3093-3107.	2.5	39
40	Identifying multidisciplinary research gaps across Arctic terrestrial gradients. Environmental Research Letters, 2019, 14, 124061.	5.2	21
41	Snow is an important control of plant community functional composition in oroarctic tundra. Oecologia, 2019, 191, 601-608.	2.0	15
42	New insights into the environmental factors controlling the ground thermal regime across the Northern Hemisphere: a comparison between permafrost and non-permafrost areas. Cryosphere, 2019, 13, 693-707.	3.9	34
43	Assessing sampling coverage of species distribution in biodiversity databases. Journal of Vegetation Science, 2019, 30, 620-632.	2.2	11
44	Are drivers of microbial diatom distributions context dependent in humanâ€impacted and pristine environments?. Ecological Applications, 2019, 29, e01917.	3.8	5
45	A comprehensive evaluation of predictive performance of 33 species distribution models at species and community levels. Ecological Monographs, 2019, 89, e01370.	5.4	290
46	Global buffering of temperatures under forest canopies. Nature Ecology and Evolution, 2019, 3, 744-749.	7.8	374
47	Lost at high latitudes: Arctic and endemic plants under threat as climate warms. Diversity and Distributions, 2019, 25, 809-821.	4.1	38
48	Estimating fractional cover of tundra vegetation at multiple scales using unmanned aerial systems and optical satellite data. Remote Sensing of Environment, 2019, 224, 119-132.	11.0	100
49	Machine-learning based reconstructions of primary and secondary climate variables from North American and European fossil pollen data. Scientific Reports, 2019, 9, 15805.	3.3	28
50	Water as a resource, stress and disturbance shaping tundra vegetation. Oikos, 2019, 128, 811-822.	2.7	34
51	Circumpolar permafrost maps and geohazard indices for near-future infrastructure risk assessments. Scientific Data, 2019, 6, 190037.	5.3	51
52	Monthly microclimate models in a managed boreal forest landscape. Agricultural and Forest Meteorology, 2018, 250-251, 147-158.	4.8	84
53	Productivity, biodiversity, and pathogens influence the global hunter-gatherer population density. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 1232-1237.	7.1	86
54	The current state of CO₂ flux chamber studies in the Arctic tundra. Progress in Physical Geography, 2018, 42, 162-184.	3.2	41

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55	The importance of snow in species distribution models of arctic vegetation. Ecography, 2018, 41, 1024-1037.	4.5	71
56	Modelling soil moisture in a highâ€latitude landscape using LiDAR and soil data. Earth Surface Processes and Landforms, 2018, 43, 1019-1031.	2.5	48
57	Tundra Trait Team: A database of plant traits spanning the tundra biome. Global Ecology and Biogeography, 2018, 27, 1402-1411.	5.8	57
58	Degrading permafrost puts Arctic infrastructure at risk by mid-century. Nature Communications, 2018, 9, 5147.	12.8	327
59	Snow cover is a neglected driver of Arctic biodiversity loss. Nature Climate Change, 2018, 8, 997-1001.	18.8	94
60	Abrupt high-latitude climate events and decoupled seasonal trends during the Eemian. Nature Communications, 2018, 9, 2851.	12.8	41
61	Statistical Forecasting of Current and Future Circumâ€Arctic Ground Temperatures and Active Layer Thickness. Geophysical Research Letters, 2018, 45, 4889-4898.	4.0	83
62	Biogeophysical controls on soil-atmosphere thermal differences: implications on warming Arctic ecosystems. Environmental Research Letters, 2018, 13, 074003.	5.2	41
63	Models of Arctic-alpine refugia highlight importance of climate and local topography. Polar Biology, 2017, 40, 489-502.	1.2	9
64	Revealing topoclimatic heterogeneity using meteorological station data. International Journal of Climatology, 2017, 37, 544-556.	3.5	47
65	Improving forecasts of arctic-alpine refugia persistence with landscape-scale variables. Geografiska Annaler, Series A: Physical Geography, 2017, 99, 2-14.	1.5	7
66	The need for largeâ€scale distribution data to estimate regional changes in species richness under future climate change. Diversity and Distributions, 2017, 23, 1393-1407.	4.1	32
67	Statistical modelling predicts almost complete loss of major periglacial processes in Northern Europe by 2100. Nature Communications, 2017, 8, 515.	12.8	31
68	Unravelling direct and indirect effects of hierarchical factors driving microbial stream communities. Journal of Biogeography, 2017, 44, 2376-2385.	3.0	21
69	Drivers of high-latitude plant diversity hotspots and their congruence. Biological Conservation, 2017, 212, 288-299.	4.1	15
70	Holocene fenâ€“bog transitions, current status in Finland and future perspectives. Holocene, 2017, 27, 752-764.	1.7	42
71	The effect of topography on arctic-alpine aboveground biomass and NDVI patterns. International Journal of Applied Earth Observation and Geoinformation, 2017, 56, 44-53.	2.8	42
72	Impact of biotic interactions on biodiversity varies across a landscape. Journal of Biogeography, 2016, 43, 2412-2423.	3.0	21

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73	Climate is an important driver for stream diatom distributions. Global Ecology and Biogeography, 2016, 25, 198-206.	5.8	39
74	The regional species richness and genetic diversity of <scp>A</scp>rctic vegetation reflect both past glaciations and current climate. Global Ecology and Biogeography, 2016, 25, 430-442.	5.8	44
75	The mossy north: an inverse latitudinal diversity gradient in European bryophytes. Scientific Reports, 2016, 6, 25546.	3.3	74
76	Contrasting effects of biotic interactions on richness and distribution of vascular plants, bryophytes and lichens in an arcticâ€“alpine landscape. Polar Biology, 2016, 39, 649-657.	1.2	23
77	What we use is not what we know: environmental predictors in plant distribution models. Journal of Vegetation Science, 2016, 27, 1308-1322.	2.2	165
78	The direct and indirect effects of watershed land use and soil type on stream water metal concentrations. Water Resources Research, 2016, 52, 7711-7725.	4.2	23
79	Arctic shrubification mediates the impacts of warming climate on changes to tundra vegetation. Environmental Research Letters, 2016, 11, 124028.	5.2	28
80	Stream diatom assemblages as predictors of climate. Freshwater Biology, 2016, 61, 876-886.	2.4	9
81	Past climateâ€driven range shifts and population genetic diversity in arctic plants. Journal of Biogeography, 2016, 43, 461-470.	3.0	48
82	Calibrating aquatic microfossil proxies with regression-tree ensembles: Cross-validation with modern chironomid and diatom data. Holocene, 2016, 26, 1040-1048.	1.7	10
83	Influence of patch size and connectivity on beach and dune species in land-uplift coasts. Plant Ecology and Diversity, 2016, 9, 35-44.	2.4	3
84	A stable, genetically determined colour dimorphism in the dung beetle <scp>A</scp>phodius depressus: patterns and mechanisms. Ecological Entomology, 2015, 40, 575-584.	2.2	0
85	Spatial modelling of stream water quality along an urbanâ€“rural gradient. Geografiska Annaler, Series A: Physical Geography, 2015, 97, 819-834.	1.5	5
86	Disjunct populations of <scp>E</scp>uropean vascular plant species keep the same climatic niches. Global Ecology and Biogeography, 2015, 24, 1401-1412.	5.8	39
87	Determinants of sediment properties and organic matter in beach and dune environments based on boosted regression trees. Earth Surface Processes and Landforms, 2015, 40, 1137-1145.	2.5	8
88	The effects of local, buffer zone and geographical variables on lake plankton metacommunities. Hydrobiologia, 2015, 743, 175-188.	2.0	15
89	Biotic interactions boost spatial models of species richness. Ecography, 2015, 38, 913-921.	4.5	63
90	Primary succession, disturbance and productivity drive complex species richness patterns on land uplift beaches. Journal of Vegetation Science, 2015, 26, 267-277.	2.2	42

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91	Human population dynamics in Europe over the Last Glacial Maximum. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 8232-8237.	7.1	140
92	Successful translocation of the threatened Clouded Apollo butterfly (Parnassius mnemosyne) and metapopulation establishment in southern Finland. Biological Conservation, 2015, 190, 51-59.	4.1	27
93	Geomorphological factors predict water quality in boreal rivers. Earth Surface Processes and Landforms, 2015, 40, 1989-1999.	2.5	39
94	Arctic-alpine vegetation biomass is driven by fine-scale abiotic heterogeneity. Geografiska Annaler, Series A: Physical Geography, 2014, 96, n/a-n/a.	1.5	9
95	Earth surface processes drive the richness, composition and occurrence of plant species in an arcticâ€“alpine environment. Journal of Vegetation Science, 2014, 25, 45-54.	2.2	50
96	The meso-scale drivers of temperature extremes in high-latitude Fennoscandia. Climate Dynamics, 2014, 42, 237-252.	3.8	23
97	Reconstructing palaeoclimatic variables from fossil pollen using boosted regression trees: comparison and synthesis with other quantitative reconstruction methods. Quaternary Science Reviews, 2014, 88, 69-81.	3.0	36
98	Incorporating dominant species as proxies for biotic interactions strengthens plant community models. Journal of Ecology, 2014, 102, 767-775.	4.0	63
99	Integrating climate and local factors for geomorphological distribution models. Earth Surface Processes and Landforms, 2014, 39, 1729-1740.	2.5	26
100	Predictability in species distributions: a global analysis across organisms and ecosystems. Global Ecology and Biogeography, 2014, 23, 1264-1274.	5.8	25
101	Outcomes of biotic interactions are dependent on multiple environmental variables. Journal of Vegetation Science, 2014, 25, 1024-1032.	2.2	54
102	Potential for extreme loss in high-latitude Earth surface processes due to climate change. Geophysical Research Letters, 2014, 41, 3914-3924.	4.0	25
103	2.6 Statistical Methods for Geomorphic Distribution Modeling. , 2013, , 59-73.		21
104	Vegetation Mediates Soil Temperature and Moisture in Arctic-Alpine Environments. Arctic, Antarctic, and Alpine Research, 2013, 45, 429-439.	1.1	70
105	Horizontal, but not vertical, biotic interactions affect fineâ€scale plant distribution patterns in a lowâ€energy system. Ecology, 2013, 94, 671-682.	3.2	51
106	Using unclassified continuous remote sensing data to improve distribution models of red-listed plant species. Biodiversity and Conservation, 2013, 22, 1731-1754.	2.6	22
107	Geomorphological disturbance is necessary for predicting fineâ€scale species distributions. Ecography, 2013, 36, 800-808.	4.5	38
108	Testing species distribution models across space and time: high latitude butterflies and recent warming. Global Ecology and Biogeography, 2013, 22, 1293-1303.	5.8	113

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109	Biotic interactions drive species occurrence and richness in dynamic beach environments. Plant Ecology, 2013, 214, 1455-1466.	1.6	37
110	The role of biotic interactions in shaping distributions and realised assemblages of species: implications for species distribution modelling. Biological Reviews, 2013, 88, 15-30.	10.4	1,224
111	Local temperatures inferred from plant communities suggest strong spatial buffering of climate warming across <scp>N</scp>orthern <scp>E</scp>urope. Global Change Biology, 2013, 19, 1470-1481.	9.5	200
112	Soil moisture's underestimated role in climate change impact modelling in lowâ€energy systems. Global Change Biology, 2013, 19, 2965-2975.	9.5	110
113	Inclusion of explicit measures of geodiversity improve biodiversity models in a boreal landscape. Biodiversity and Conservation, 2012, 21, 3487-3506.	2.6	87
114	A North European pollenâ€“climate calibration set: analysing the climatic responses of a biological proxy using novel regression tree methods. Quaternary Science Reviews, 2012, 45, 95-110.	3.0	47
115	ENVIRONMENTAL DETERMINANTS OF WATER QUALITY IN BOREAL RIVERS BASED ON PARTITIONING METHODS. River Research and Applications, 2012, 28, 1034-1046.	1.7	34
116	Distance decay of similarity in freshwater communities: do macroâ€and microorganisms follow the same rules?. Global Ecology and Biogeography, 2012, 21, 365-375.	5.8	281
117	Does the interpolation accuracy of species distribution models come at the expense of transferability?. Ecography, 2012, 35, 276-288.	4.5	200
118	Dispersal ability links to crossâ€scale species diversity patterns across the Eurasian Arctic tundra. Global Ecology and Biogeography, 2012, 21, 851-860.	5.8	41
119	Climate change and the future distributions of aquatic macrophytes across boreal catchments. Journal of Biogeography, 2011, 38, 383-393.	3.0	81
120	Inclusion of local environmental conditions alters high-latitude vegetation change predictions based on bioclimatic models. Polar Biology, 2011, 34, 883-897.	1.2	24
121	Novel theoretical insights into geomorphic processâ€“environment relationships using simulated response curves. Earth Surface Processes and Landforms, 2011, 36, 363-371.	2.5	19
122	Assessing the vulnerability of European butterflies to climate change using multiple criteria. Biodiversity and Conservation, 2010, 19, 695-723.	2.6	71
123	Applying probabilistic projections of climate change with impact models: a case study for sub-arctic palsa mires in Fennoscandia. Climatic Change, 2010, 99, 515-534.	3.6	59
124	Predicted insect diversity declines under climate change in an already impoverished region. Journal of Insect Conservation, 2010, 14, 485-498.	1.4	49
125	Assessing spatial uncertainty in predictive geomorphological mapping: A multi-modelling approach. Computers and Geosciences, 2010, 36, 355-361.	4.2	18
126	Selection of den sites by wolves in boreal forests in Finland. Journal of Zoology, 2010, 281, 99-104.	1.7	25

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127	Recent vegetation changes at the highâ€latitude tree line ecotone are controlled by geomorphological disturbance, productivity and diversity. Global Ecology and Biogeography, 2010, 19, 810-821.	5.8	118
128	The performance of state-of-the-art modelling techniques depends on geographical distribution of species. Ecological Modelling, 2009, 220, 3512-3520.	2.5	150
129	Statistical consensus methods for improving predictive geomorphology maps. Computers and Geosciences, 2009, 35, 615-625.	4.2	47
130	Relative importance of habitat area, connectivity, management and local factors for vascular plants: spring ephemerals in boreal semi-natural grasslands. Biodiversity and Conservation, 2009, 18, 1067-1085.	2.6	18
131	Carnivore-livestock conflicts: determinants of wolf (Canis lupus) depredation on sheep farms in Finland. Biodiversity and Conservation, 2009, 18, 3503-3517.	2.6	60
132	Species traits explain recent range shifts of Finnish butterflies. Global Change Biology, 2009, 15, 732-743.	9.5	254
133	Inclusion of soil data improves the performance of bioclimatic envelope models for insect species distributions in temperate Europe. Journal of Biogeography, 2009, 36, 1459-1473.	3.0	38
134	Some like it hot: microclimatic variation affects the abundance and movements of a critically endangered dung beetle. Insect Conservation and Diversity, 2009, 2, 232-241.	3.0	27
135	Evaluation of consensus methods in predictive species distribution modelling. Diversity and Distributions, 2009, 15, 59-69.	4.1	990
136	Interaction of geomorphic and ecologic features across altitudinal zones in a subarctic landscape. Geomorphology, 2009, 112, 324-333.	2.6	47
137	Threat spots and environmental determinants of red-listed plant, butterfly and bird species in boreal agricultural environments. Biodiversity and Conservation, 2008, 17, 3289-3305.	2.6	14
138	A comparison of predictive methods in modelling the distribution of periglacial landforms in Finnish Lapland. Earth Surface Processes and Landforms, 2008, 33, 2241-2254.	2.5	48
139	Disregarding topographical heterogeneity biases species turnover assessments based on bioclimatic models. Global Change Biology, 2008, 14, 483-494.	9.5	135
140	Modelling the occurrence of threatened plant species in taiga landscapes: methodological and ecological perspectives. Journal of Biogeography, 2008, 35, 1888-1905.	3.0	37
141	The importance of biotic interactions for modelling species distributions under climate change. Global Ecology and Biogeography, 2007, 16, 743-753.	5.8	953
142	Landscape scale determinants of periglacial features in subarctic Finland: a grid-based modelling approach. Permafrost and Periglacial Processes, 2007, 18, 115-127.	3.4	31
143	Methods and uncertainties in bioclimatic envelope modelling under climate change. Progress in Physical Geography, 2006, 30, 751-777.	3.2	787
144	Scale mattersâ€“A multi-resolution study of the determinants of patterned ground activity in subarctic Finland. Geomorphology, 2006, 80, 282-294.	2.6	30

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145	Determinants of the biogeographical distribution of butterflies in boreal regions. Journal of Biogeography, 2006, 33, 1764-1778.	3.0	111
146	Uncertainty of bioclimate envelope models based on the geographical distribution of species. Global Ecology and Biogeography, 2005, 14, 575-584.	5.8	180