Markus Hauck

List of Publications by Year
in descending order

136 papers	4,395 citations	94433 37 h-index	144013 57 g-index
136 all docs	136 docs citations	136 times ranked	3734 citing authors

#	Article	IF	Citations
1	A first assessment of the impact of the extreme 2018 summer drought on Central European forests. Basic and Applied Ecology, 2020, 45, 86-103.	2.7	482
2	Global warming-related tree growth decline and mortality on the north-eastern Tibetan plateau. Climatic Change, 2016, 134, 163-176.	3.6	153
3	Climate Warming-Related Growth Decline Affects Fagus sylvatica, But Not Other Broad-Leaved Tree Species in Central European Mixed Forests. Ecosystems, 2015, 18, 560-572.	3.4	138
4	Pastoral nomadism in the forest-steppe of the Mongolian Altai under a changing economy and a warming climate. Journal of Arid Environments, 2013, 88, 82-89.	2.4	100
5	European beech responds to climate change with growth decline at lower, and growth increase at higher elevations in the center of its distribution range (SW Germany). Trees - Structure and Function, 2017, 31, 673-686.	1.9	91
6	The significance of deadwood for total bryophyte, lichen, and vascular plant diversity in an old-growth spruce forest. Plant Ecology, 2014, 215, 1123-1137.	1.6	79
7	Diverging climate trends in Mongolian taiga forests influence growth and regeneration of Larix sibirica. Oecologia, 2010, 163, 1091-1102.	2.0	78
8	Manganese toxicity in epiphytic lichens: chlorophyll degradation and interaction with iron and phosphorus. Environmental and Experimental Botany, 2003, 49, 181-191.	4.2	76
9	Ammonium and nitrate tolerance in lichens. Environmental Pollution, 2010, 158, 1127-1133.	7.5	76
10	Water relations and photosynthetic performance in Larix sibirica growing in the forest-steppe ecotone of northern Mongolia. Tree Physiology, 2008, 29, 99-110.	3.1	69
11	Dramatic diversity losses in epiphytic lichens in temperate broad-leaved forests during the last 150years. Biological Conservation, 2013, 157, 136-145.	4.1	68
12	Dissociation and metal-binding characteristics of yellow lichen substances suggest a relationship with site preferences of lichens. Annals of Botany, 2009, 103, 13-22.	2.9	65
13	Increased Summer Temperatures Reduce the Growth and Regeneration of Larix sibirica in Southern Boreal Forests of Eastern Kazakhstan. Ecosystems, 2013, 16, 1536-1549.	3.4	65
14	Recent drought stress leads to growth reductions in <i>Larix sibirica</i> in the western Khentey, Mongolia. Global Change Biology, 2010, 16, 3024-3035.	9.5	61
15	Lichen Substances Affect Metal Adsorption in Hypogymnia physodes. Journal of Chemical Ecology, 2006, 33, 219-223.	1.8	58
16	Surface Hydrophobicity Causes SO2 Tolerance in Lichens. Annals of Botany, 2008, 101, 531-539.	2.9	58
17	Response of tree-ring width to climate warming and selective logging in larch forests of the Mongolian Altai. Journal of Plant Ecology, 2014, 7, 24-38.	2.3	56
18	Site factors controlling epiphytic lichen abundance in northern coniferous forests. Flora: Morphology, Distribution, Functional Ecology of Plants, 2011, 206, 81-90.	1.2	55

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19	Relevance of element content of bark for the distribution of epiphytic lichens in a montane spruce forest affected by forest dieback. Environmental Pollution, 2001, 112, 221-227.	7.5	53
20	Effects of manganese on element distribution and structure in thalli of the epiphytic lichens Hypogymnia physodes and Lecanora conizaeoides. Environmental and Experimental Botany, 2003, 50, 113-124.	4.2	53
21	Lichen Substances Prevent Lichens from Nutrient Deficiency. Journal of Chemical Ecology, 2009, 35, 71-73.	1.8	53
22	Photobiont selectivity in the epiphytic lichens Hypogymnia physodes and Lecanora conizaeoides. Lichenologist, 2007, 39, 195-204.	0.8	49
23	Late Holocene vegetation history suggests natural origin of steppes in the northern Mongolian mountain taiga. Palaeogeography, Palaeoclimatology, Palaeoecology, 2008, 261, 203-217.	2.3	48
24	Stemflow chemistry and epiphytic lichen diversity in dieback-affected spruce forest of the Harz Mountains, Germany. Flora: Morphology, Distribution, Functional Ecology of Plants, 2002, 197, 250-261.	1.2	46
25	Manganese uptake in the epiphytic lichens Hypogymnia physodes and Lecanora conizaeoides. Environmental and Experimental Botany, 2002, 48, 107-117.	4.2	46
26	Usnic acid controls the acidity tolerance of lichens. Environmental Pollution, 2008, 156, 115-122.	7.5	46
27	Rapid recovery of stem increment in Norway spruce at reduced SO2 levels in the Harz Mountains, Germany. Environmental Pollution, 2012, 164, 132-141.	7.5	46
28	Metal homeostasis in Hypogymnia physodes is controlled by lichen substances. Environmental Pollution, 2008, 153, 304-308.	7.5	45
29	The different strategies of Pinus sylvestris and Larix sibirica to deal with summer drought in a northern Mongolian forestâ€"steppe ecotone suggest a future superiority of pine in a warming climate. Canadian Journal of Forest Research, 2009, 39, 2520-2528.	1.7	45
30	Climate response of tree-ring width in Larix sibirica growing in the drought-stressed forest-steppe ecotone of northern Mongolia. Annals of Forest Science, 2011, 68, 275-282.	2.0	45
31	Effects of manganese on the viability of vegetative diaspores of the epiphytic lichen Hypogymnia physodes. Environmental and Experimental Botany, 2002, 47, 127-142.	4.2	44
32	Epiphytic Lichen Diversity and Forest Dieback: The Role of Chemical Site Factors*. Bryologist, 2003, 106, 257-269.	0.6	41
33	Spatial and seasonal variation of climate on steppe slopes of the northern Mongolian mountain taiga. Grassland Science, 2008, 54, 217-230.	1.1	41
34	Global warming and alternative causes of decline in arcticâ€alpine and borealâ€montane lichens in Northâ€Western Central Europe. Global Change Biology, 2009, 15, 2653-2661.	9.5	40
35	The significance of stemflow chemistry for epiphytic lichen diversity in a dieback-affected spruce forest on Mt Brocken, northern Germany. Lichenologist, 2002, 34, 415-427.	0.8	39
36	Manganese as a site factor for epiphytic lichens. Lichenologist, 2005, 37, 409-423.	0.8	38

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37	Comparing the plant diversity of paired beech primeval and production forests: Management reduces cryptogam, but not vascular plant species richness. Forest Ecology and Management, 2017, 400, 58-67.	3.2	38
38	Lichen diversity on steppe slopes in the northern Mongolian mountain taiga and its dependence on microclimate. Flora: Morphology, Distribution, Functional Ecology of Plants, 2007, 202, 530-546.	1.2	37
39	Effects of insect herbivory on the performance of Larix sibirica in a forest-steppe ecotone. Environmental and Experimental Botany, 2008, 62, 351-356.	4.2	37
40	Insect and small mammal herbivores limit tree establishment in northern Mongolian steppe. Plant Ecology, 2008, 195, 143-156.	1.6	36
41	Twenty Years After Decollectivization: Mobile Livestock Husbandry and Its Ecological Impact in the Mongolian Forest-Steppe. Human Ecology, 2013, 41, 725-735.	1.4	36
42	Carbon pool densities and a first estimate of the total carbon pool in the Mongolian forestâ€steppe. Global Change Biology, 2016, 22, 830-844.	9.5	36
43	Site factors determining epiphytic lichen distribution in a dieback-affected spruce-fir forest on Whiteface Mountain, New York: stemflow chemistry. Canadian Journal of Botany, 2002, 80, 1131-1140.	1.1	35
44	Carbon pools of semi-arid Picea crassifolia forests in the Qilian Mountains (north-eastern Tibetan) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	3.2	35
45	The significance of precipitation and substrate chemistry for epiphytic lichen diversity in spruce-fir forests of the Salish Mountains, northwestern Montana. Flora: Morphology, Distribution, Functional Ecology of Plants, 2005, 200, 547-562.	1.2	34
46	Performance of Siberian elm (Ulmus pumila) on steppe slopes of the northern Mongolian mountain taiga: Drought stress and herbivory in mature trees. Environmental and Experimental Botany, 2009, 66, 18-24.	4.2	33
47	Higher climate warming sensitivity of Siberian larch in small than large forest islands in the fragmented Mongolian forest steppe. Global Change Biology, 2017, 23, 3675-3689.	9.5	33
48	The Mn/Ca and Mn/Mg ratios in bark as possible causes for the occurrence of Lobarion Lichens on conifers in the dripzone of Populus in western North America. Lichenologist, 2002, 34, 527-532.	0.8	32
49	Preference of lichens for shady habitats is correlated with intolerance to high nitrogen levels. Lichenologist, 2010, 42, 475-484.	0.8	32
50	Extremely low fine root biomass in Larix sibirica forests at the southern drought limit of the boreal forest. Flora: Morphology, Distribution, Functional Ecology of Plants, 2013, 208, 488-496.	1.2	32
51	Significance of Over-Mature and Decaying Trees for Carbon Stocks in a Central European Natural Spruce Forest. Ecosystems, 2013, 16, 336-346.	3.4	31
52	Contrasting responses of seedling and sapling densities to livestock density in the Mongolian forest-steppe. Plant Ecology, 2013, 214, 1391-1403.	1.6	30
53	Correlations between the Mn/Ca ratio in stemflow and epiphytic lichen abundance in a dieback-affected spruce forest of the Harz Mountains, Germany. Flora: Morphology, Distribution, Functional Ecology of Plants, 2002, 197, 361-369.	1.2	29
54	Does secondary chemistry enable lichens to grow on iron-rich substrates?. Flora: Morphology, Distribution, Functional Ecology of Plants, 2007, 202, 471-478.	1.2	29

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55	High acidity tolerance in lichens with fumarprotocetraric, perlatolic or thamnolic acids is correlated with low pKa1 values of these lichen substances. Environmental Pollution, 2009, 157, 2776-2780.	7.5	29
56	Climate effects on vegetation vitality at the treeline of boreal forests of Mongolia. Biogeosciences, 2018, 15, 1319-1333.	3.3	29
57	Uptake and toxicity of manganese in epiphytic cyanolichens. Environmental and Experimental Botany, 2006, 56, 216-224.	4.2	28
58	Response of ground vegetation and epiphyte diversity to natural age dynamics in a Central European mountain spruce forest. Journal of Vegetation Science, 2013, 24, 675-687.	2.2	27
59	Effects of natural forest dynamics on vascular plant, bryophyte, and lichen diversity in primeval <i>Fagus sylvatica</i> forests and comparison with production forests. Journal of Ecology, 2018, 106, 2421-2434.	4.0	27
60	Biomass Stock and Productivity of Primeval and Production Beech Forests: Greater Canopy Structural Diversity Promotes Productivity. Ecosystems, 2018, 21, 704-722.	3.4	27
61	The putative role of fumarprotocetraric acid in the manganese tolerance of the lichen Lecanora conizaeoides. Lichenologist, 2007, 39, 301-304.	0.8	26
62	Norstictic acid: Correlations between its physico-chemical characteristics and ecological preferences of lichens producing this depsidone. Environmental and Experimental Botany, 2010, 68, 309-313.	4.2	26
63	Gypsy moth-induced growth decline of Larix sibirica in a forest-steppe ecotone. Dendrochronologia, 2010, 28, 207-213.	2.2	26
64	Lichen substance concentrations in the lichen Hypogymnia physodes are correlated with heavy metal concentrations in the substratum. Environmental and Experimental Botany, 2013, 85, 58-63.	4.2	26
65	Pastoral livestock husbandry and rural livelihoods in the forest-steppe of east Kazakhstan. Journal of Arid Environments, 2016, 133, 102-111.	2.4	26
66	A novel empirical approach for determining the extension of forest development stages in temperate old-growth forests. European Journal of Forest Research, 2018, 137, 321-335.	2.5	25
67	Epiphytic lichen diversity on dead and dying conifers under different levels of atmospheric pollution. Environmental Pollution, 2005, 135, 111-119.	7.5	24
68	Range-habitat relationships of vascular plant species at the taiga forest-steppe borderline in the western Khentey Mountains, northern Mongolia. Flora: Morphology, Distribution, Functional Ecology of Plants, 2005, 200, 376-397.	1.2	24
69	Epiphytic lichen diversity and its dependence on bark chemistry in the northern Mongolian dark taiga. Flora: Morphology, Distribution, Functional Ecology of Plants, 2009, 204, 278-288.	1.2	24
70	Edge and land-use effects on epiphytic lichen diversity in the forest-steppe ecotone of the Mongolian Altai. Flora: Morphology, Distribution, Functional Ecology of Plants, 2012, 207, 450-458.	1.2	24
71	Separating forest continuity from tree age effects on plant diversity in the ground and epiphyte vegetation of a Central European mountain spruce forest. Flora: Morphology, Distribution, Functional Ecology of Plants, 2013, 208, 238-246.	1.2	24
72	Modelling the productivity of Siberian larch forests from Landsat NDVI time series in fragmented forest stands of the Mongolian forest-steppe. Environmental Monitoring and Assessment, 2021, 193, 200.	2.7	24

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73	Susceptibility to acidic precipitation contributes to the decline of the terricolous lichens Cetraria aculeata and Cetraria islandica in central Europe. Environmental Pollution, 2008, 152, 731-735.	7.5	23
74	Equations for estimating the above-ground biomass of Larix sibirica in the forest-steppe of Mongolia. Journal of Forestry Research, 2013, 24, 431-437.	3.6	23
75	Stem increment and hydraulic architecture of a boreal conifer (Larix sibirica) under contrasting macroclimates. Trees - Structure and Function, 2015, 29, 623-636.	1.9	23
76	Iron and phosphate uptake explains the calcifugeâ€“calcicole behavior of the terricolous lichens Cladonia furcata subsp. furcata and C. rangiformis. Plant and Soil, 2009, 319, 49-56.	3.7	22
77	Climate effects on inter- and intra-annual larch stemwood anomalies in the Mongolian forest-steppe. Acta Oecologica, 2014, 55, 113-121.	1.1	22
78	Effects of forest management on stand leaf area: Comparing beech production and primeval forests in Slovakia. Forest Ecology and Management, 2017, 389, 76-85.	3.2	22
79	Occurrence of pollution-sensitive epiphytic lichens in woodlands affected by forest decline: a new hypothesis. Flora: Morphology, Distribution, Functional Ecology of Plants, 1999, 194, 159-168.	1.2	20
80	Element microdistribution in the bark of Abies balsamea and Picea rubens and its impact on epiphytic lichen abundance on Whiteface Mountain, New York. Flora: Morphology, Distribution, Functional Ecology of Plants, 2003, 198, 293-303.	1.2	20
81	Chemical properties of decaying wood in an old-growth spruce forest and effects on soil chemistry. Biogeochemistry, 2015, 122, 1-13.	3.5	20
82	Long-distance transported sulphur as a limiting factor for the abundance of lecanora conizaeoides in Montane Spruce Forests. Lichenologist, 2001, 33, 267-269.	0.8	19
83	Does Water-Holding Capacity of Bark Have an Influence on Lichen Performance in Dieback-Affected Spruce Forests?. Lichenologist, 2000, 32, 407-409.	0.8	18
84	Extraction methods for assessing the availability of cations for epiphytic lichens from bark. Environmental and Experimental Botany, 2003, 49, 273-283.	4.2	18
85	Establishment of Ulmus pumila seedlings on steppe slopes of the northern Mongolian mountain taiga. Acta Oecologica, 2009, 35, 563-572.	1.1	18
86	Seedling emergence and establishment of Pinus sylvestris in the Mongolian forest-steppe ecotone. Plant Ecology, 2013, 214, 139-152.	1.6	18
87	Hydraulic properties and fine root mass of Larix sibirica along forest edge-interior gradients. Acta Oecologica, 2015, 63, 28-35.	1.1	17
88	Hydraulic architecture and vulnerability to drought-induced embolism in southern boreal tree species of Inner Asia. Tree Physiology, 2019, 39, 463-473.	3.1	17
89	Copper sensitivity of soredia of the epiphytic lichen Hypogymnia physodes. Lichenologist, 2003, 35, 271-274.	0.8	16
90	Effects of manganese on chlorophyll fluorescence in epiphytic cyano- and chlorolichens. Flora: Morphology, Distribution, Functional Ecology of Plants, 2006, 201, 451-460.	1.2	15

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91	Epiphytic lichens indicate recent increase in air pollution in the Mongolian capital Ulan Bator. Lichenologist, 2008, 40, 165-168.	0.8	15
92	Small increase in sub-stratum pH causes the dieback of one of Europe's most common lichens, Lecanora conizaeoides. Annals of Botany, 2011, 108, 359-366.	2.9	15
93	Epiphytic lichens as indicators of grazing pressure in the Mongolian forest-steppe. Ecological Indicators, 2013, 32, 82-88.	6.3	15
94	Drought stress mitigation by nitrogen in boreal forests inferred from stable isotopes. Global Change Biology, 2021, 27, 5211-5224.	9.5	15
95	60-year record of stem xylem anatomy and related hydraulic modification under increased summer drought in ring- and diffuse-porous temperate broad-leaved tree species. Trees - Structure and Function, 2021, 35, 919-937.	1.9	14
96	Ultrastructural changes in soredia of the epiphytic lichen Hypogymnia physodes cultivated with manganese. Environmental and Experimental Botany, 2004, 52, 139-147.	4.2	13
97	Additions to the lichen flora of Mongolia: records from Khentey and Khangay. Willdenowia, 2006, 36, 895.	0.8	13
98	Responses of Temperate Forests to Nitrogen Deposition: Testing the Explanatory Power of Modeled Deposition Datasets for Vegetation Gradients. Ecosystems, 2021, 24, 1222-1238.	3.4	13
99	Relationships between the diversity patterns of vascular plants, lichens and invertebrates in the Central Asian forest-steppe ecotone. Biodiversity and Conservation, 2014, 23, 1105-1117.	2.6	12
100	New records of lichen species from western Mongolia. Folia Cryptogamica Estonica, 2013, 50, 13.	0.5	11
101	Change in the bryophyte diversity and species composition of Central European temperate broad-leaved forests since the late nineteenth century. Biodiversity and Conservation, 2016, 25, 2071-2091.	2.6	11
102	Age structure and trends in annual stem increment of Larix sibirica in two neighboring Mongolian forestâ€“steppe regions differing in land use history. Trees - Structure and Function, 2017, 31, 1973-1986.	1.9	11
103	Iron and phosphate uptake in epiphytic and saxicolous lichens differing in their pH requirements. Environmental and Experimental Botany, 2009, 67, 133-138.	4.2	10
104	Eutrophication threatens the biochemical diversity in lichens. Lichenologist, 2011, 43, 147-154.	0.8	10
105	Lichen-Forming and Lichenicolous Fungi New to Kazakhstan. Herzogia, 2013, 26, 103-116.	0.4	9
106	Forest edge-interior differentiation in the epiphytic lichen diversity of the forest steppe in the Khangai Mountains, Mongolia. Journal of Plant Ecology, 2014, 7, 287-297.	2.3	9
107	Runoff dynamics of the upper Selenge basin, a major water source for Lake Baikal, under a warming climate. Regional Environmental Change, 2019, 19, 2609-2619.	2.9	9
108	Epiphytic lichen abundance on branches and trunks of Abies balsamea on Whiteface Mountain, New York. Lichenologist, 2002, 34, 443-446.	0.8	8

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109	Cloud water interception and element deposition differ largely between Norway spruce stands along an elevation transect in Harz Mountains, Germany. Ecohydrology, 2015, 8, 1048-1064.	2.4	8
110	Nitrogen deposition is positively correlated to foliar nitrogen content in Vaccinium myrtillus and other understory species in temperate forests on acidic soil. Acta Oecologica, 2021, 110, 103696.	1.1	8
111	Vegetation changes in the understory of nitrogen-sensitive temperate forests over the past 70Âyears. Forest Ecology and Management, 2022, 503, 119754.	3.2	8
112	Potassium uptake in the epiphytic lichen Hypogymnia physodes at concentrations and pH conditions as found in stemflow. Flora: Morphology, Distribution, Functional Ecology of Plants, 2003, 198, 127-131.	1.2	7
113	The lichen flora of Rwanda: an annotated checklist. Willdenowia, 2007, 37, 563.	0.8	7
114	Additions to the flora of the Khentej, Mongolia, 2. Willdenowia, 2004, 34, 505.	0.8	6
115	Nitrogen mineralization peaks under closed canopy during the natural forest development cycle of an old-growth temperate spruce forest. Annals of Forest Science, 2015, 72, 67-76.	2.0	6
116	Anomalous Increase in Winter Temperature and Decline in Forest Growth Associated with Severe Winter Smog in the Ulan Bator Basin. Water, Air, and Soil Pollution, 2016, 227, 1.	2.4	6
117	The efficiency of retention measures in continuous-cover forestry for conserving epiphytic cryptogams: A case study on Abies alba. Forest Ecology and Management, 2021, 502, 119698.	3.2	6
118	Graphis tetralocularis, a new lichen with four-celled ascospores from tropical Africa. Lichenologist, 2005, 37, 105-108.	0.8	5
119	Effect of amino acid moieties on metal binding in pulvinic acid derivatives and ecological implications for lichens producing these compounds. Bryologist, 2010, 113, 1-7.	0.6	5
120	New Combinations inBacidina. Herzogia, 2010, 23, 15-17.	0.4	5
121	Vertical variation in epiphytic cryptogam species richness and composition in a primeval Fagus sylvatica forest. Journal of Vegetation Science, 2019, 30, 881-892.	2.2	5
122	Geoecological parameters indicate discrepancies between potential and actual forest area in the forest-steppe of Central Mongolia. Forest Ecosystems, 2021, 8, .	3.1	5
123	Lecidea hercynica, a new montane epiphytic lichen from Germany. Lichenologist, 2005, 37, 485-489.	0.8	4
124	Multiple soil factors explain eutrophication signals in the understorey vegetation of temperate forests. Journal of Vegetation Science, 2021, 32, e13063.	2.2	4
125	First Record of Bryoria Subcana (Nyl. ex Stizenb.) Brodo & D. Hawksw. in Eastern North America. Lichenologist, 2002, 34, 87-88.	0.8	3
126	Pyrrhospora gowardiana, A New Montane Lichen from Western North America (Lecanoraceae,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 62	0.6	3

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127	Erstnachweise von Flechtenarten fÃ¼r Deutschland und Frankreich. Herzogia, 2011, 24, 155-158.	0.4	3
128	Edge effects on epiphytic lichen diversity in the forest-steppe of the Kazakh Altai. Plant Ecology and Diversity, 2014, 7, 473-483.	2.4	3
129	Lichenological contributions in honour of G.B. Feige. Bryologist, 2004, 107, 593-593.	0.6	2
130	Element uptake in thalli of the lichen Physcia caesia from sandstone and calcareous substratum. Journal of Plant Nutrition and Soil Science, 2009, 172, 839-842.	1.9	2
131	Manganese availability modifies nitrogen eutrophication signals in acidophilous temperate forests. Trees, Forests and People, 2022, 9, 100281.	1.9	2
132	Small increase in substratum pH causes the dieback of one of Europe's most common lichens, Lecanora conizaeoides. Annals of Botany, 2011, 108, 985-985.	2.9	1
133	The Lichens of Italy. A Second Annotated Catalogue.. Herzogia, 2017, 30, 524-526.	0.4	0
134	Temperate Waldzone. , 2019, , 183-238.		0
135	Boreale WÃlder und Moorgebiete. , 2019, , 117-181.		0
136	Temperate SteppengraslÃnder. , 2019, , 239-256.		0