

Heikki Setälä

List of Publications by Year in descending order

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Version: 2024-02-01

109
papers

10,629
citations

76196

40
h-index

33814

99
g-index

109
all docs

109
docs citations

109
times ranked

11132
citing authors

#	ARTICLE	IF	CITATIONS
1	Ecological Linkages Between Aboveground and Belowground Biota. <i>Science</i> , 2004, 304, 1629-1633.	6.0	3,502
2	Intensive agriculture reduces soil biodiversity across Europe. <i>Global Change Biology</i> , 2015, 21, 973-985.	4.2	641
3	Soil nematode abundance and functional group composition at a global scale. <i>Nature</i> , 2019, 572, 194-198.	13.7	635
4	Soil food web properties explain ecosystem services across European land use systems. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 14296-14301.	3.3	520
5	Long-term organic farming fosters below and aboveground biota: Implications for soil quality, biological control and productivity. <i>Soil Biology and Biochemistry</i> , 2008, 40, 2297-2308.	4.2	457
6	Decomposition rate of organic substrates in relation to the species diversity of soil saprophytic fungi. <i>Oecologia</i> , 2004, 139, 98-107.	0.9	273
7	Sensitivity of Primary Production to Changes in the Architecture of Belowground Food Webs. <i>Oikos</i> , 1999, 87, 57.	1.2	268
8	TOP-DOWN IS BOTTOM-UP: DOES PREDATION IN THE RHIZOSPHERE REGULATE ABOVEGROUND DYNAMICS?. <i>Ecology</i> , 2003, 84, 846-857.	1.5	236
9	NO EVIDENCE OF TROPHIC CASCADES IN AN EXPERIMENTAL MICROBIAL-BASED SOIL FOOD WEB. <i>Ecology</i> , 1998, 79, 153-164.	1.5	195
10	Soil Fauna Increase <i>Betula Pendula</i> Growth: Laboratory Experiments With Coniferous Forest Floor. <i>Ecology</i> , 1991, 72, 665-671.	1.5	180
11	Does urban vegetation mitigate air pollution in northern conditions?. <i>Environmental Pollution</i> , 2013, 183, 104-112.	3.7	171
12	Discontinuity in the responses of ecosystem processes and multifunctionality to altered soil community composition. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 14478-14483.	3.3	157
13	Soil microbial communities are shaped by vegetation type and park age in cities under cold climate. <i>Environmental Microbiology</i> , 2017, 19, 1281-1295.	1.8	114
14	Bacterial traits, organism mass, and numerical abundance in the detrital soil food web of Dutch agricultural grasslands. <i>Ecology Letters</i> , 2004, 8, 80-90.	3.0	103
15	Growth of Birch and Pine Seedlings in Relation to Grazing by Soil Fauna on Ectomycorrhizal Fungi. <i>Ecology</i> , 1995, 76, 1844-1851.	1.5	102
16	Trophic interactions in changing landscapes: responses of soil food webs. <i>Basic and Applied Ecology</i> , 2004, 5, 495-503.	1.2	100
17	Influence of body size of soil fauna on litter decomposition and ¹⁵ N uptake by poplar in a pot trial. <i>Soil Biology and Biochemistry</i> , 1996, 28, 1661-1675.	4.2	99
18	Multitrophic interactions in decomposer food-webs. , 2002, , 223-264.		96

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19	Urban forests near roads do not reduce gaseous air pollutant concentrations but have an impact on particles levels. <i>Landscape and Urban Planning</i> , 2017, 158, 39-47.	3.4	92
20	Relationship between soil microarthropod species diversity and plant growth does not change when the system is disturbed. <i>Oikos</i> , 2002, 96, 137-149.	1.2	88
21	Functional implications of soil fauna diversity in boreal forests. <i>Applied Soil Ecology</i> , 1998, 10, 277-288.	2.1	85
22	Population- and ecosystem-level effects of predation on microbial-feeding nematodes. <i>Oecologia</i> , 1999, 120, 279-286.	0.9	83
23	The Benefits and Limits of Urban Tree Planting for Environmental and Human Health. <i>Frontiers in Ecology and Evolution</i> , 2021, 9, .	1.1	83
24	Urbanization erodes ectomycorrhizal fungal diversity and may cause microbial communities to converge. <i>Nature Ecology and Evolution</i> , 2017, 1, 123.	3.4	76
25	Influence of decomposer food web structure and nitrogen availability on plant growth. <i>Plant and Soil</i> , 2000, 225, 153-165.	1.8	72
26	Vegetation Type and Age Drive Changes in Soil Properties, Nitrogen, and Carbon Sequestration in Urban Parks under Cold Climate. <i>Frontiers in Ecology and Evolution</i> , 2016, 4, .	1.1	72
27	Urban snow indicates pollution originating from road traffic. <i>Environmental Pollution</i> , 2014, 195, 56-63.	3.7	63
28	The Effects of Urbanization on Runoff Pollutant Concentrations, Loadings and Their Seasonal Patterns Under Cold Climate. <i>Water, Air, and Soil Pollution</i> , 2014, 225, 1.	1.1	62
29	Trophic structure and functional redundancy in soil communities. , 2005, , 236-249.		61
30	Soil processes are not influenced by the functional complexity of soil decomposer food webs under disturbance. <i>Soil Biology and Biochemistry</i> , 2002, 34, 1009-1020.	4.2	60
31	Self-contamination from clothing in microplastics research. <i>Ecotoxicology and Environmental Safety</i> , 2020, 189, 110036.	2.9	60
32	A Global Comparison of Surface Soil Characteristics Across Five Cities. <i>Soil Science</i> , 2015, 180, 136-145.	0.9	59
33	Species richness and food web structure of soil decomposer community as affected by the size of habitat fragment and habitat corridors. <i>Global Change Biology</i> , 2005, 11, 1614-1627.	4.2	55
34	The effects of trees on air pollutant levels in peri-urban near-road environments. <i>Urban Forestry and Urban Greening</i> , 2018, 30, 62-71.	2.3	55
35	Sensitivity of ecosystem functioning to changes in trophic structure, functional group composition and species diversity in belowground food webs. <i>Ecological Research</i> , 2002, 17, 207-215.	0.7	54
36	The effects of biochar, wood vinegar and plants on glyphosate leaching and degradation. <i>European Journal of Soil Biology</i> , 2013, 58, 1-7.	1.4	51

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37	Effects of land use intensity on stormwater runoff and its temporal occurrence in cold climates. <i>Hydrological Processes</i> , 2014, 28, 2639-2650.	1.1	51
38	Lead contamination of an old shooting range affecting the local ecosystem – A case study with a holistic approach. <i>Science of the Total Environment</i> , 2006, 369, 99-108.	3.9	46
39	A global database of soil nematode abundance and functional group composition. <i>Scientific Data</i> , 2020, 7, 103.	2.4	46
40	Quantifying carbon stocks in urban parks under cold climate conditions. <i>Urban Forestry and Urban Greening</i> , 2020, 49, 126633.	2.3	46
41	10 Years Later. <i>Advances in Ecological Research</i> , 2015, 53, 1-53.	1.4	43
42	Trees in urban parks and forests reduce O ₃ , but not NO ₂ concentrations in Baltimore, MD, USA. <i>Atmospheric Environment</i> , 2017, 167, 73-80.	1.9	42
43	Community composition of soil microarthropods of acid forest soils as affected by wood ash application. <i>Pedobiologia</i> , 2002, 46, 108-124.	0.5	41
44	Interactive effects of defoliation and an AM fungus on plants and soil organisms in experimental legume-grass communities. <i>Oikos</i> , 2004, 106, 73-84.	1.2	41
45	Food Webs and Nutrient Cycling in Soils: Interactions and Positive Feedbacks. , 1996, , 30-38.		38
46	Moth herbivory enhances resource turnover in subarctic mountain birch forests?. <i>Ecology</i> , 2013, 94, 267-272.	1.5	37
47	Plant colonization of bare peat surface - relative importance of seed availability and soil. <i>Ecography</i> , 1992, 15, 199-204.	2.1	36
48	Decomposition of the leaf litter and mycorrhiza forming ability of silver birch with a genetically modified lignin biosynthesis pathway. <i>Applied Soil Ecology</i> , 2007, 36, 100-106.	2.1	34
49	Influence of resource quality on the composition of soil decomposer community in fragmented and continuous habitat. <i>Soil Biology and Biochemistry</i> , 2004, 36, 1983-1996.	4.2	33
50	Decomposition of leaf litter from chitinase transgenic silver birch (<i>Betula pendula</i>) and effects on decomposer populations in a field trial. <i>Applied Soil Ecology</i> , 2006, 32, 338-349.	2.1	33
51	Decomposition of labile and recalcitrant litter types under different plant communities in urban soils. <i>Urban Ecosystems</i> , 2011, 14, 59-70.	1.1	31
52	Monetary value of urban green space as an ecosystem service provider: A case study of urban runoff management in Finland. <i>Ecosystem Services</i> , 2017, 28, 17-27.	2.3	31
53	Do enchytraeid worms and habitat corridors facilitate the colonisation of habitat patches by soil microbes?. <i>Biology and Fertility of Soils</i> , 2004, 39, 200-208.	2.3	30
54	Ectomycorrhizal Fungal Communities in Urban Parks Are Similar to Those in Natural Forests but Shaped by Vegetation and Park Age. <i>Applied and Environmental Microbiology</i> , 2017, 83, .	1.4	29

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55	Gaseous polycyclic aromatic hydrocarbon concentrations are higher in urban forests than adjacent open areas during summer but not in winter – Exploratory study. <i>Environmental Pollution</i> , 2016, 208, 233-240.	3.7	28
56	Influence of Ectomycorrhiza on the Structure of Detrital Food Webs in Pine Rhizosphere. <i>Oikos</i> , 1999, 87, 113.	1.2	27
57	Birch (<i>Betula</i> spp.) wood biochar is a potential soil amendment to reduce glyphosate leaching in agricultural soils. <i>Journal of Environmental Management</i> , 2015, 164, 46-52.	3.8	27
58	Urban belowground food-web responses to plant community manipulation – Impacts on nutrient dynamics. <i>Landscape and Urban Planning</i> , 2010, 97, 1-10.	3.4	26
59	Key factors affecting urban runoff pollution under cold climatic conditions. <i>Journal of Hydrology</i> , 2015, 529, 1578-1589.	2.3	26
60	Over twenty years farmland reforestation decreases fungal diversity of soils, but stimulates the return of ectomycorrhizal fungal communities. <i>Plant and Soil</i> , 2018, 427, 231-244.	1.8	26
61	The ability of selected filter materials in removing nutrients, metals, and microplastics from stormwater in biofilter structures. <i>Journal of Environmental Quality</i> , 2021, 50, 465-475.	1.0	26
62	Testing the usefulness of habitat corridors in mitigating the negative effects of fragmentation: the soil faunal community as a model system. <i>Applied Soil Ecology</i> , 2004, 25, 267-274.	2.1	25
63	Effects of small-scale habitat fragmentation, habitat corridors and mainland dispersal on soil decomposer organisms. <i>Applied Soil Ecology</i> , 2006, 34, 152-159.	2.1	25
64	Variable impacts of enchytraeid worms and ectomycorrhizal fungi on plant growth in raw humus soil treated with wood ash. <i>Applied Soil Ecology</i> , 2007, 35, 174-183.	2.1	23
65	Greenbelts do not reduce NO ₂ concentrations in near-road environments. <i>Urban Climate</i> , 2017, 21, 306-317.	2.4	23
66	Introducing GLUSEEN: a new open access and experimental network in urban soil ecology. <i>Journal of Urban Ecology</i> , 2017, 3, .	0.6	23
67	Can the soil fauna of boreal forests recover from lead-derived stress in a shooting range area?. <i>Ecotoxicology</i> , 2014, 23, 437-448.	1.1	22
68	Evergreen trees stimulate carbon accumulation in urban soils via high root production and slow litter decomposition. <i>Science of the Total Environment</i> , 2021, 774, 145129.	3.9	22
69	Influence of <i>Cognettia sphagnetorum</i> (Enchytraeidae) on birch growth and microbial activity, composition and biomass in soil with or without wood ash. <i>Biology and Fertility of Soils</i> , 2001, 34, 185-195.	2.3	21
70	The impact of urban trees on concentrations of PAHs and other gaseous air pollutants in Yanji, northeast China. <i>Atmospheric Environment</i> , 2018, 192, 151-159.	1.9	21
71	Colonisation of newly established habitats by soil decomposer organisms: the effect of habitat corridors in relation to colonisation distance and habitat size. <i>Applied Soil Ecology</i> , 2005, 28, 67-77.	2.1	20
72	Spatio-temporal patterns of major ions in urban stormwater under cold climate. <i>Hydrological Processes</i> , 2017, 31, 1564-1577.	1.1	20

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73	Earthworm assemblages in urban habitats across biogeographical regions. <i>Applied Soil Ecology</i> , 2020, 151, 103530.	2.1	20
74	Defoliation effects on <i>Plantago lanceolata</i> resource allocation and soil decomposers in relation to AM symbiosis and fertilization. <i>Soil Biology and Biochemistry</i> , 2009, 41, 2328-2335.	4.2	19
75	A large-scale lysimeter study of stormwater biofiltration under cold climatic conditions. <i>Ecological Engineering</i> , 2017, 100, 89-98.	1.6	19
76	Regulation of decomposer community structure and decomposition processes in herbicide stressed humus soil. <i>Applied Soil Ecology</i> , 1997, 6, 265-274.	2.1	18
77	Bacteria and microbial-feeders modify the performance of a decomposer fungus. <i>Soil Biology and Biochemistry</i> , 2001, 33, 1703-1712.	4.2	18
78	Soil processes and tree growth at shooting ranges in a boreal forest reflect contamination history and lead-induced changes in soil food webs. <i>Science of the Total Environment</i> , 2015, 518-519, 320-327.	3.9	18
79	Assessing above-ground biomass of open-grown urban trees: A comparison between existing models and a volume-based approach. <i>Urban Forestry and Urban Greening</i> , 2017, 21, 239-246.	2.3	18
80	Do plant species of different resource qualities form dissimilar energy channels below-ground?. <i>Applied Soil Ecology</i> , 2010, 44, 270-278.	2.1	17
81	The fate of lead at abandoned and active shooting ranges in a boreal pine forest. <i>Environmental Toxicology and Chemistry</i> , 2012, 31, 2771-2779.	2.2	16
82	Reply to Byrnes et al.: Aggregation can obscure understanding of ecosystem multifunctionality. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, E5491.	3.3	15
83	Nitrogen addition impacts on the emissions of greenhouse gases depending on the forest type: a case study in Changbai Mountain, Northeast China. <i>Journal of Soils and Sediments</i> , 2017, 17, 23-34.	1.5	15
84	Automated Urban Rainfall-Runoff Model Generation with Detailed Land Cover and Flow Routing. <i>Journal of Hydrologic Engineering - ASCE</i> , 2019, 24, .	0.8	15
85	Nonparasitic Nematoda provide evidence for a linear response of functionally important soil biota to increasing livestock density. <i>Die Naturwissenschaften</i> , 2005, 92, 314-318.	0.6	14
86	Effects of forests on particle number concentrations in near-road environments across three geographic regions. <i>Environmental Pollution</i> , 2020, 266, 115294.	3.7	14
87	Influence of carbon and nutrient additions on a decomposer food chain and the growth of pine seedlings in microcosms. <i>Applied Soil Ecology</i> , 2001, 17, 189-197.	2.1	13
88	Impacts of chitinase-transformed silver birch on leaf decomposition and soil organisms. <i>European Journal of Soil Biology</i> , 2004, 40, 155-161.	1.4	13
89	Community composition of soil organisms under different wheat farming systems. <i>Advances in Agroecology</i> , 2012, , 89-111.	0.3	13
90	Heavy metals from heavy land use? Spatio-temporal patterns of urban runoff metal loads. <i>Science of the Total Environment</i> , 2022, 817, 152855.	3.9	13

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91	Nitrogen and Carbon Dynamics and the Role of Enchytraeid Worms in Decomposition of L, F and H Layers of Boreal Mor. <i>Water, Air, and Soil Pollution</i> , 2012, 223, 3701-3719.	1.1	12
92	Metagenomics Reveals Bacterial and Archaeal Adaptation to Urban Land-Use: N Catabolism, Methanogenesis, and Nutrient Acquisition. <i>Frontiers in Microbiology</i> , 2019, 10, 2330.	1.5	12
93	Urbanization minimizes the effects of plant traits on soil provisioned ecosystem services across climatic regions. <i>Global Change Biology</i> , 2021, 27, 4139-4153.	4.2	12
94	Microbial communities in local and transplanted soils along a latitudinal gradient. <i>Catena</i> , 2019, 173, 456-464.	2.2	11
95	Title is missing!. <i>Plant and Soil</i> , 2002, 246, 31-39.	1.8	10
96	Parameterization of a Hydrological Model for a Large, Ungauged Urban Catchment. <i>Water (Switzerland)</i> , 2016, 8, 443.	1.2	10
97	Impacts of urban roadside forest patches on NO ₂ concentrations. <i>Atmospheric Environment</i> , 2020, 232, 117584.	1.9	10
98	The matrix affects carabid beetle assemblages in linear urban ruderal habitats. <i>Urban Ecosystems</i> , 2017, 20, 971-981.	1.1	9
99	Environmental fate of polycyclic aromatic hydrocarbons under different plant traits in urban soil as affected by nitrogen deposition. <i>Applied Soil Ecology</i> , 2011, 47, 167-175.	2.1	8
100	Immune-mediated disease associated microbial community responded to PAH stress in phyllosphere of roadside greenspaces in Shanghai. <i>Environmental Pollution</i> , 2022, 292, 118379.	3.7	8
101	Positive association between biotin and the abundance of root-feeding nematodes. <i>Soil Biology and Biochemistry</i> , 2014, 73, 93-95.	4.2	7
102	Nutrient leaching, soil pH and changes in microbial community increase with time in lead-contaminated boreal forest soil at a shooting range area. <i>Environmental Science and Pollution Research</i> , 2017, 24, 5415-5425.	2.7	6
103	The invasive herb <i>Lupinus polyphyllus</i> can reduce plant species richness independently of local invasion age. <i>Biological Invasions</i> , 2022, 24, 425-436.	1.2	6
104	Vegetation type and age matter: How to optimize the provision of ecosystem services in urban parks. <i>Urban Forestry and Urban Greening</i> , 2021, 66, 127392.	2.3	6
105	Variation in soil lignin protection mechanisms in five successional gradients of mixed broadleaf-pine forests. <i>Soil Science Society of America Journal</i> , 2020, 84, 232-250.	1.2	5
106	Release of Carbon in Different Molecule Size Fractions from Decomposing Boreal Mor and Peat as Affected by Enchytraeid Worms. <i>Water, Air, and Soil Pollution</i> , 2018, 229, 1.	1.1	4
107	Nutrient dynamics and development of soil fauna in vegetated roofs with the focus on biochar amendment. <i>Nature-based Solutions</i> , 2021, 1, 100001.	1.6	4
108	A more sustainable urban future calls for action: the city of Lahti as European Green Capital 2021. <i>Journal of Urban Ecology</i> , 2021, 7, .	0.6	2

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109	Plant functional type affects nitrogen dynamics in urban park soils similarly to boreal forest soils. Plant and Soil, 0, , .	1.8	0