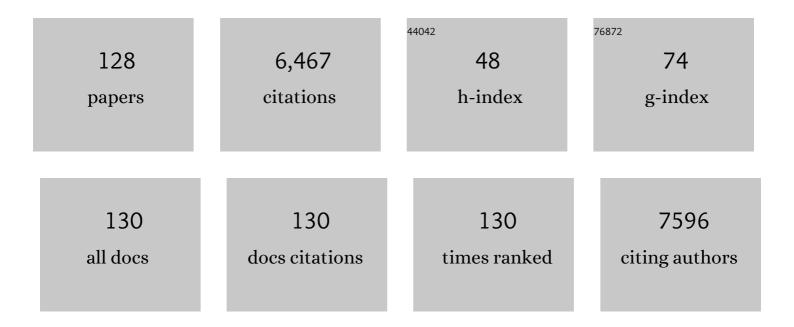
## Matthew Hamish Turnbull

List of Publications by Year in descending order

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#	Article	IF	CITATIONS
1	Global variability in leaf respiration in relation to climate, plant functional types and leaf traits. New Phytologist, 2015, 206, 614-636.	3.5	350
2	13C Natural Abundance in Plant Communities Along a Rainfall Gradient: a Biological Integrator of Water Availability. Functional Plant Biology, 1995, 22, 51.	1.1	317
3	The relative impacts of daytime and night-time warming on photosynthetic capacity in Populus deltoides. Plant, Cell and Environment, 2002, 25, 1729-1737.	2.8	231
4	Thermal limits of leaf metabolism across biomes. Global Change Biology, 2017, 23, 209-223.	4.2	213
5	Convergence in the temperature response of leaf respiration across biomes and plant functional types. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 3832-3837.	3.3	198
6	Leaf day respiration: low <scp>CO</scp> <sub>2</sub> flux but high significance for metabolism and carbon balance. New Phytologist, 2017, 216, 986-1001.	3.5	159
7	Thermal acclimation of leaf respiration but not photosynthesis in <i>Populus deltoides</i> × <i>nigra</i> . New Phytologist, 2008, 178, 123-134.	3.5	139
8	Increased pond depth improves algal productivity and nutrient removal in wastewater treatment high rate algal ponds. Water Research, 2014, 53, 271-281.	5.3	133
9	Enhancing microalgal photosynthesis and productivity in wastewater treatment high rate algal ponds for biofuel production. Bioresource Technology, 2015, 184, 222-229.	4.8	128
10	Plant growth in elevated CO2 alters mitochondrial number and chloroplast fine structure. Proceedings of the National Academy of Sciences of the United States of America, 2001, 98, 2473-2478.	3.3	113
11	The impact of mycorrhizal colonization upon nitrogen source utilization and metabolism in seedlings of Eucalyptus grandis Hill ex Maiden and Eucalyptus maculata Hook. Plant, Cell and Environment, 1995, 18, 1386-1394.	2.8	107
12	Implications of improved representations of plant respiration in a changing climate. Nature Communications, 2017, 8, 1602.	5.8	100
13	Response of total night-time respiration to differences in total daily photosynthesis for leaves in a Quercus rubra L. canopy: implications for modelling canopy CO2 exchange. Global Change Biology, 2004, 10, 925-938.	4.2	97
14	Bringing the Kok effect to light: A review on the integration of daytime respiration and net ecosystem exchange. Ecosphere, 2013, 4, 1-14.	1.0	90
15	The effect of light quantity and quality during development on the photosynthetic characteristics of six Australian rainforest tree species. Oecologia, 1991, 87, 110-117.	0.9	88
16	Seasonal variation in light utilisation, biomass production and nutrient removal by wastewater microalgae in a full-scale high-rate algal pond. Journal of Applied Phycology, 2014, 26, 1317-1329.	1.5	85
17	The effects of CO2 addition along a pH gradient on wastewater microalgal photo-physiology, biomass production and nutrient removal. Water Research, 2015, 70, 9-26.	5.3	85
18	Canopy position affects the relationships between leaf respiration and associated traits in a tropical rainforest in Far North Queensland. Tree Physiology, 2014, 34, 564-584.	1.4	84

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19	The onset of photosynthetic acclimation to elevated CO 2 partial pressure in fieldâ€grown Pinus radiata D. Don. after 4 years. Plant, Cell and Environment, 2000, 23, 1089-1098.	2.8	83
20	Sap flow rates and sapwood density are critical factors in within―and betweenâ€ŧree variation in CO 2 efflux from stems of mature Dacrydium cupressinum trees. New Phytologist, 2005, 167, 815-828.	3.5	83
21	Photosynthetic acclimation to long-term exposure to elevated CO2 concentration in Pinus radiata D. Don. is related to age of needles. Plant, Cell and Environment, 1998, 21, 1019-1028.	2.8	81
22	Scaling foliar respiration in two contrasting forest canopies. Functional Ecology, 2003, 17, 101-114.	1.7	81
23	15N natural abundance of vascular rainforest epiphytes: implications for nitrogen source and acquisition. Plant, Cell and Environment, 1995, 18, 85-90.	2.8	80
24	Root adaptation and nitrogen source acquisition in natural ecosystems. Tree Physiology, 1996, 16, 941-948.	1.4	78
25	Canopy position affects the temperature response of leaf respiration in Populus deltoides. New Phytologist, 2002, 154, 609-619.	3.5	76
26	Urea hydrolysis and lateral and vertical movement in the soil: effects of urease inhibitor and irrigation. Biology and Fertility of Soils, 2011, 47, 139-146.	2.3	74
27	Radiative transfer and carbon assimilation in relation to canopy architecture, foliage area distribution and clumping in a mature temperate rainforest canopy in New Zealand. Agricultural and Forest Meteorology, 2005, 135, 326-339.	1.9	73
28	Leaf respiration is differentially affected by leaf vs. stand-level night-time warming. Global Change Biology, 2002, 8, 479-485.	4.2	72
29	Ageâ€related decline of stand biomass accumulation is primarily due to mortality and not to reduction in NPP associated with individual tree physiology, tree growth or stand structure in a <i>Quercus</i> â€dominated forest. Journal of Ecology, 2012, 100, 428-440.	1.9	72
30	Variation in the degree of coupling between δ 13 C of phloem sap and ecosystem respiration in two mature Nothofagus forests. New Phytologist, 2005, 166, 497-512.	3.5	68
31	The dynamics of photosynthetic acclimation to changes in light quanlity and quality in three Australian rainforest tree species. Oecologia, 1993, 94, 218-228.	0.9	67
32	Nocturnal stomatal conductance and implications for modelling δ180 of leaf-respired CO2 in temperate tree species. Functional Plant Biology, 2005, 32, 1107.	1.1	67
33	Seasonal variation in foliar carbon exchange in <i>Pinus radiata</i> and <i>Populus deltoides</i> : respiration acclimates fully to changes in temperature but photosynthesis does not. Global Change Biology, 2010, 16, 288-302.	4.2	66
34	The contribution of bryophytes to the carbon exchange for a temperate rainforest. Global Change Biology, 2003, 9, 1158-1170.	4.2	64
35	Urease inhibitor reduces N losses and improves plant-bioavailability of urea applied in fine particle and granular forms under field conditions. Agriculture, Ecosystems and Environment, 2011, 144, 41-50.	2.5	63
36	Urban environment of New York City promotes growth in northern red oak seedlings. Tree Physiology, 2012, 32, 389-400.	1.4	63

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37	Environmental drivers that influence microalgal species in fullscale wastewater treatment high rate algal ponds. Water Research, 2017, 124, 504-512.	5.3	62
38	Effects of two different nutrient loads on microalgal production, nutrient removal and photosynthetic efficiency in pilot-scale wastewater high rate algal ponds. Water Research, 2014, 66, 53-62.	5.3	59
39	Moa ghosts exorcised? New Zealand's divaricate shrubs avoid photoinhibition. Functional Ecology, 2002, 16, 232-240.	1.7	58
40	Host Genotype and Nitrogen Form Shape the Root Microbiome of Pinus radiata. Microbial Ecology, 2018, 75, 419-433.	1.4	58
41	Respiration characteristics in temperate rainforest tree species differ along a long-term soil-development chronosequence. Oecologia, 2005, 143, 271-279.	0.9	57
42	Plasticity in mesophyll volume fraction modulates light-acclimation in needle photosynthesis in two pines. Tree Physiology, 2007, 27, 1137-1151.	1.4	57
43	Leaf respiration and alternative oxidase in fieldâ€grown alpine grasses respond to natural changes in temperature and light. New Phytologist, 2011, 189, 1027-1039.	3.5	57
44	Photosynthesis and reflectance indices for rainforest species in ecosystems undergoing progression and retrogression along a soil fertility chronosequence in New Zealand. Oecologia, 2005, 144, 233-244.	0.9	56
45	Seasonal variation in the red/far-red ratio and photon flux density in an Australian sub-tropical rainforest. Agricultural and Forest Meteorology, 1993, 64, 111-127.	1.9	54
46	Water availability - a physiological constraint on nitrate utilization in plants of Australian semi-arid muiga woodlands. Plant, Cell and Environment, 1996, 19, 1149-1159.	2.8	53
47	Light inhibition of leaf respiration as soil fertility declines along a post-glacial chronosequence in New Zealand: an analysis using the Kok method. Plant and Soil, 2013, 367, 163-182.	1.8	53
48	Leaf dark respiration as a function of canopy position in Nothofagus fusca trees grown at ambient and elevated CO2 partial pressures for 5Âyears. Functional Ecology, 2001, 15, 497-505.	1.7	52
49	Photosynthetic characteristics in canopies of Quercus rubra, Quercus prinus and Acer rubrum differ in response to soil water availability. Oecologia, 2002, 130, 515-524.	0.9	51
50	Mast seeding, predator satiation, and temperature cues in <i>Chionochloa</i> (Poaceae). Population Ecology, 2008, 50, 343-355.	0.7	51
51	Soil heterotrophic respiration is insensitive to changes in soil water content but related to microbial access to organic matter. Geoderma, 2016, 274, 68-78.	2.3	51
52	Nocturnal warming increases photosynthesis at elevated CO 2 partial pressure in Populus deltoides. New Phytologist, 2004, 161, 819-826.	3.5	49
53	Evidence That Glutamate Dehydrogenase Plays a Role in the Oxidative Deamination of Glutamate in Seedlings of Zea mays. Functional Plant Biology, 1995, 22, 805.	1.1	48
54	Seasonal performance of a full-scale wastewater treatment enhanced pond system. Water Research, 2018, 136, 150-159.	5.3	46

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55	Analysis of the growth of rimu (Dacrydium cupressinum) in South Westland, New Zealand, using process-based simulation models. International Journal of Biometeorology, 2002, 46, 66-75.	1.3	44
56	Thermal acclimation of respiration but not photosynthesis in Pinus radiata. Functional Plant Biology, 2008, 35, 448.	1.1	43
57	Nitrogen and phosphorus availabilities interact to modulate leaf trait scaling relationships across six plant functional types in a controlledâ€environment study. New Phytologist, 2017, 215, 992-1008.	3.5	41
58	Tracking the origins of the Kok effect, 70 years after its discovery. New Phytologist, 2017, 214, 506-510.	3.5	40
59	Stomatal and non-stomatal limitations to photosynthesis in four tree species in a temperate rainforest dominated by Dacrydium cupressinum in New Zealand. Tree Physiology, 2005, 25, 447-456.	1.4	39
60	The carbon costs for host trees of a phloem-feeding herbivore. Journal of Ecology, 2007, 95, 603-613.	1.9	39
61	Light saturated <scp>R</scp> u <scp>BP</scp> oxygenation by Rubisco is a robust predictor of light inhibition of respiration in <i>Triticum aestivum</i> L. Plant Biology, 2013, 15, 769-775.	1.8	39
62	Effects of leaf age and tree size on stomatal and mesophyll limitations to photosynthesis in mountain beech (Nothofagus solandrii var. cliffortiodes). Tree Physiology, 2011, 31, 985-996.	1.4	37
63	The15N Natural Abundance Patterns of Field-collected Fungi from Three Kinds of Ecosystems. Rapid Communications in Mass Spectrometry, 1996, 10, 974-979.	0.7	36
64	Effects of irrigation and addition of nitrogen fertiliser on net ecosystem carbon balance for a grassland. Science of the Total Environment, 2017, 579, 1715-1725.	3.9	35
65	Seasonality of foliar respiration in two dominant plant species from the Arctic tundra: response to long-term warming and short-term temperature variability. Functional Plant Biology, 2014, 41, 287.	1.1	34
66	Differential physiological responses to environmental change promote woody shrub expansion. Ecology and Evolution, 2013, 3, 1149-1162.	0.8	33
67	Soil phosphorous and endogenous rhythms exert a larger impact than CO2 or temperature on nocturnal stomatal conductance in Eucalyptus tereticornis. Tree Physiology, 2013, 33, 1206-1215.	1.4	33
68	Modifying the high rate algal pond light environment and its effects on light absorption andÂphotosynthesis. Water Research, 2015, 70, 86-96.	5.3	33
69	Seasonal variation of leaf respiration and the alternative pathway in fieldâ€grown <i>Populus</i> × <i>canadensis</i> . Physiologia Plantarum, 2011, 141, 332-342.	2.6	30
70	Applying urea with urease inhibitor (N-(n-butyl) thiophosphoric triamide) in fine particle application improves nitrogen uptake in ryegrass ( <i>Lolium perenne</i> L.). Soil Science and Plant Nutrition, 2012, 58, 309-318.	0.8	30
71	Scaling leaf respiration with nitrogen and phosphorus in tropical forests across two continents. New Phytologist, 2017, 214, 1064-1077.	3.5	30
72	The impact of urease inhibitor on the bioavailability of nitrogen in urea and in comparison with other nitrogen sources in ryegrass (Lolium perenne L.). Crop and Pasture Science, 2010, 61, 214.	0.7	28

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73	Thermal acclimation of shoot respiration in an Arctic woody plant species subjected to 22Âyears of warming and altered nutrient supply. Global Change Biology, 2014, 20, 2618-2630.	4.2	28
74	Leaf―and cellâ€Ievel carbon cycling responses to a nitrogen and phosphorus gradient in two Arctic tundra species. American Journal of Botany, 2012, 99, 1702-1714.	0.8	27
75	Nitrogen relations of natural and disturbed plant communities in tropical Australia. Oecologia, 1998, 117, 95-104.	0.9	26
76	Wastewater microalgal production, nutrient removal and physiological adaptation in response to changes in mixing frequency. Water Research, 2014, 61, 130-140.	5.3	26
77	Carbon assimilation, partitioning and export in mature cladophylls of two asparagus (Asparagus) Tj ETQq1 1 0.784	1314 rgBT 2.6	/Overlock 1
78	Loss of labile carbon following soil disturbance determined byÂmeasurement of respired â^,13CO2. Soil Biology and Biochemistry, 2014, 68, 125-132.	4.2	25
79	Leaf Respiration in Terrestrial Biosphere Models. Advances in Photosynthesis and Respiration, 2017, , 107-142.	1.0	25
80	Frequency of CO2 supply affects wastewater microalgal photosynthesis, productivity and nutrient removal efficiency in mesocosms: implications for full-scale high rate algal ponds. Journal of Applied Phycology, 2015, 27, 1901-1911.	1.5	24
81	Depletion of carbohydrate reserves limits nitrate uptake during early regrowth in Lolium perenne L Journal of Experimental Botany, 2017, 68, 1569-1583.	2.4	23
82	Energy investment in leaves of red maple and co-occurring oaks within a forested watershed. Tree Physiology, 2002, 22, 859-867.	1.4	21
83	The architecture of New Zealand's divaricate shrubs in relation to light adaptation. New Zealand Journal of Botany, 2006, 44, 171-186.	0.8	21
84	Factors controlling labile soil organic matter vulnerability to loss following disturbance as assessed by measurement of soilâ€respired <scp>l´<sup>13</sup>CO<sub>2</sub></scp> . European Journal of Soil Science, 2015, 66, 135-144.	1.8	21
85	Respiratory flexibility and efficiency are affected by simulated global change in Arctic plants. New Phytologist, 2013, 197, 1161-1172.	3.5	20
86	LIGHTâ€GROWN PLANTS OF THE CUCUMBER LONG HYPOCOTYL MUTANT EXHIBIT BOTH LONGâ€TERM AND RAP ELONGATION GROWTH RESPONSES TO IRRADIATION WITH SUPPLEMENTARY FARâ€RED LIGHT. Photochemistry and Photobiology, 1992, 56, 607-610.		19
87	Addition of nitrogen fertiliser increases net ecosystem carbon dioxide uptake and the loss of soil organic carbon in grassland growing in mesocosms. Geoderma, 2016, 266, 75-83.	2.3	19
88	Variations in dark respiration and mitochondrial numbers within needles of Pinus radiata grown in ambient or elevated CO2 partial pressure. Tree Physiology, 2004, 24, 347-353.	1.4	18
89	Respiratory alternative oxidase responds to both low- and high-temperature stress in Quercus rubra leaves along an urban-rural gradient in New York. Functional Ecology, 2011, 25, 1007-1017.	1.7	18
90	Flowering in snow tussock (Chionochloa spp.) is influenced by temperature and hormonal cues. Functional Plant Biology, 2012, 39, 38.	1.1	18

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91	Metabolic changes and associated cytokinin signals in response to nitrate assimilation in roots and shoots of <i>Lolium perenne</i> . Physiologia Plantarum, 2016, 156, 497-511.	2.6	17
92	Separating species and environmental determinants of leaf functional traits in temperate rainforest plants along a soil-development chronosequence. Functional Plant Biology, 2016, 43, 751.	1.1	17
93	Acclimation of leaf respiration temperature responses across thermally contrasting biomes. New Phytologist, 2021, 229, 1312-1325.	3.5	17
94	The effect of plant light environment on mycorrhizal colonisation in fieldâ€grown seedlings of podocarpâ€angiosperm forest tree species. New Zealand Journal of Botany, 2002, 40, 65-72.	0.8	16
95	Sapwood temperature gradients between lower stems and the crown do not influence estimates of stand-level stem CO2 efflux. Tree Physiology, 2008, 28, 1553-1559.	1.4	15
96	Soil water availability influences the temperature response of photosynthesis and respiration in a grass and a woody shrub. Functional Plant Biology, 2014, 41, 468.	1.1	14
97	Light-acclimation of cladode photosynthetic potentials in Casuarina glauca: trade-offs between physiological and structural investments. Functional Plant Biology, 2005, 32, 571.	1.1	13
98	The impact of defoliation on nitrogen translocation patterns in the woody invasive plant, Buddleia davidii. Functional Plant Biology, 2008, 35, 462.	1.1	13
99	A fieldâ€compatible method for measuring alternative respiratory pathway activities <i>in vivo</i> using stable O <sub>2</sub> isotopes. Plant, Cell and Environment, 2012, 35, 1518-1532.	2.8	13
100	Modulation of respiratory metabolism in response to nutrient changes along a soil chronosequence. Plant, Cell and Environment, 2013, 36, 1120-1134.	2.8	13
101	Coordinated nitrogen and carbon remobilization for nitrate assimilation in leaf, sheath and root and associated cytokinin signals during early regrowth of Lolium perenne. Annals of Botany, 2017, 119, 1353-1364.	1.4	13
102	Evaluating the Contribution of Glutamate Dehydrogenase and the Glutamate Synthase Cycle to Ammonia Assimilation by Four Ectomycorrhizal Fungal Isolates. Functional Plant Biology, 1996, 23, 151.	1.1	13
103	Diurnal and Seasonal Photosynthesis in Two Asparagus Cultivars with Contrasting Yield. Crop Science, 2002, 42, 399-405.	0.8	12
104	Correcting for nonlinearity effects of continuous flow isotope ratio mass spectrometry across a wide dynamic range. Rapid Communications in Mass Spectrometry, 2012, 26, 460-468.	0.7	12
105	Spatial and temporal scaling of intercellular CO2 concentration in a temperate rain forest dominated by Dacrydium cupressinum in New Zealand. Plant, Cell and Environment, 2006, 29, 497-510.	2.8	11
106	Measurement of the distribution of nonâ€structural carbohydrate composition in onion populations by a highâ€throughput microplate enzymatic assay. Journal of the Science of Food and Agriculture, 2013, 93, 2470-2477.	1.7	11
107	A RootNav analysis of morphological changes in Brassica napus L. roots in response to different nitrogen forms. Plant Growth Regulation, 2017, 83, 83-92.	1.8	11
108	Light inhibition of foliar respiration in response to soil water availability and seasonal changes in temperature in Mediterranean holm oak (Quercus ilex) forest. Functional Plant Biology, 2017, 44, 1178.	1.1	11

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109	Molecular control of masting: an introduction to an epigenetic summer memory. Annals of Botany, 2020, 125, 851-858.	1.4	11
110	Out of the light and into the dark: postâ€illumination respiratory metabolism. New Phytologist, 2012, 195, 4-7.	3.5	9
111	Reply to Adams et al.: Empirical versus process-based approaches to modeling temperature responses of leaf respiration. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E5996-E5997.	3.3	9
112	Field-scale variability in site conditions explain phenotypic plasticity in response to nitrogen source in Pinus radiata D. Don. Plant and Soil, 2019, 443, 353-368.	1.8	9
113	Molecular control of the floral transition in the mast seeding plant Celmisia Iyallii (Asteraceae). Molecular Ecology, 2021, 30, 1846-1863.	2.0	9
114	The influence of nitrogen supply on growth and internal recycling of nitrogen in young Nothofagus fusca trees. Functional Plant Biology, 2001, 28, 249.	1.1	8
115	Separating host-tree and environmental determinants of honeydew production by Ultracoelostoma scale insects in a Nothofagus forest. Ecological Entomology, 2007, 32, 338-348.	1.1	8
116	Carbon partitioning and sucrose metabolism in two field-grown asparagus (Asparagus officinalis) cultivars with contrasting yield. Functional Plant Biology, 2002, 29, 517.	1.1	7
117	Response of photosynthesis and respiration to temperature under water deficit in two evergreen <scp><i>Nothofagus</i></scp> species. Plant Species Biology, 2015, 30, 163-175.	0.6	6
118	Genotypic variation in Pinus radiata responses to nitrogen source are related to changes in the root microbiome. FEMS Microbiology Ecology, 2018, 94, .	1.3	6
119	Estimated light compensation depth explains growth of Stuckenia pectinata in Te Waihora. Aquatic Botany, 2019, 156, 57-64.	0.8	5
120	Carbon metabolism in developing spears of two asparagus (Asparagus officinalis) cultivars with contrasting yield. Functional Plant Biology, 2001, 28, 1013.	1.1	5
121	Insights into the functional relationship between cytokinin-induced root system phenotypes and nitrate uptake in Brassica napus. Functional Plant Biology, 2017, 44, 832.	1.1	4
122	Diurnal and Seasonal Photosynthesis in Two Asparagus Cultivars with Contrasting Yield. Crop Science, 2002, 42, 399.	0.8	4
123	Effects of nitrogen supply on phenology and carbon assimilation in young <i>Nothofagus fusca</i> . New Zealand Journal of Botany, 2001, 39, 617-630.	0.8	3
124	Phytomass index improves estimates of net ecosystem carbon dioxide exchange in intensively grazed grassland. Agriculture, Ecosystems and Environment, 2016, 233, 298-307.	2.5	2
125	A novel <i>TFL1</i> gene induces flowering in the mast seeding alpine snow tussock, <i>Chionochloa pallens</i> (Poaceae). Molecular Ecology, 2022, 31, 822-838.	2.0	2
126	Ecological Factors Preventing Restoration of Degraded Short Tussock Landscapes in New Zealand's Dryland Zone. Open Agriculture, 2017, 2, 442-452.	0.7	1

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127	Salinity restricts light conversion efficiency during photo-acclimation to high irradiance in Stuckenia pectinata. Environmental and Experimental Botany, 2019, 165, 83-91.	2.0	1
128	Addition of sorptive mineral phases to soils decreases shortâ€ŧerm organic matter decomposition by reducing microbial access to substrates. European Journal of Soil Science, 2022, 73, .	1.8	1