Josep Penuelas

List of Publications by Year in Descending Order

1,090 papers	87,338 citations	133 h-index	263 g-index
1,200 ext. papers	107,203 ext. citations	7.5 avg, IF	8.32 L-index

#	Paper	IF	Citations
1090	The global nitrogen-phosphorus imbalance.. *Science*, **2022**, 375, 266-267	33.3	3
1089	Contrasting phenology responses to climate warming across the northern extra-tropics. *Fundamental Research*, **2022**,		1
1088	Impact of Lockdowns and Winter Temperatures on Natural Gas Consumption in Europe. *Earth's Future*, **2022**, 10,	7.9	3
1087	Functional Traits 2.0: The power of the metabolome for ecology. *Journal of Ecology*, **2022**, 110, 4-20	6	5
1086	Timing leaf senescence: A generalized additive models for location, scale and shape approach. *Agricultural and Forest Meteorology*, **2022**, 315, 108823	5.8	1
1085	Paddy soils have a much higher microbial biomass content than upland soils: A review of the origin, mechanisms, and drivers. *Agriculture, Ecosystems and Environment*, **2022**, 326, 107798	5.7	7
1084	Contribution of periphytic biofilm of paddy soils to carbon dioxide fixation and methane emissions.. *Innovation(China)*, **2022**, 3, 100192	17.8	0
1083	Vertical profiles of leaf photosynthesis and leaf traits and soil nutrients in two tropical rainforests in French Guiana before and after a 3-year nitrogen and phosphorus addition experiment. *Earth System Science Data*, **2022**, 14, 5-18	10.5	0
1082	Seasonal drought in Mediterranean soils mainly changes microbial C and N contents whereas chronic drought mainly impairs the capacity of microbes to retain P. *Soil Biology and Biochemistry*, **2022**, 165, 108515	7.5	0
1081	Delayed and altered post-fire recovery pathways of Mediterranean shrubland under 20-year drought manipulation. *Forest Ecology and Management*, **2022**, 506, 119970	3.9	
1080	Global maps and factors driving forest foliar elemental composition: the importance of evolutionary history. *New Phytologist*, **2022**, 233, 169-181	9.8	3
1079	Effect of soil degradation on the carbon concentration and retention of nitrogen and phosphorus across Chinese rice paddy fields. *Catena*, **2022**, 209, 105810	5.8	1
1078	Allocation of foliar-P fractions of Alhagi sparsifolia and its relationship with soil-P fractions and soil properties in a hyperarid desert ecosystem. *Geoderma*, **2022**, 407, 115546	6.7	3
1077	Residual chlorine disrupts the microbial communities and spreads antibiotic resistance in freshwater. *Journal of Hazardous Materials*, **2022**, 423, 127152	12.8	16
1076	Contrasting nitrogen and phosphorus fertilization effects on soil terpene exchanges in a tropical forest. *Science of the Total Environment*, **2022**, 802, 149769	10.2	
1075	Annual and seasonal variations in soil volatile organic compound concentrations in a Mediterranean shrubland and holm oak forest. *Geoderma*, **2022**, 405, 115401	6.7	0
1074	Drought legacies on soil respiration and microbial community in a Mediterranean forest soil under different soil moisture and carbon inputs. *Geoderma*, **2022**, 405, 115425	6.7	1

1073	Higher temperature sensitivity of flowering than leaf-out alters the time between phenophases across temperate tree species. *Global Ecology and Biogeography*, **2022**, 31, 901-911	6.1	1
1072	Decreasing rainfall frequency contributes to earlier leaf onset in northern ecosystems. *Nature Climate Change*, **2022**, 12, 386-392	21.4	2
1071	Definitions and methods to estimate regional land carbon fluxes for the second phase of the REgional Carbon Cycle Assessment and Processes Project (RECCAP-2). *Geoscientific Model Development*, **2022**, 15, 1289-1316	6.3	6
1070	An earlier start of the thermal growing season enhances tree growth in cold humid areas but not in dry areas.. *Nature Ecology and Evolution*, **2022**,	12.3	5
1069	Assessment of global health risk of antibiotic resistance genes.. *Nature Communications*, **2022**, 13, 1553	17.4	14
1068	Down-regulation of the bacterial protein biosynthesis machinery in response to weeks, years, and decades of soil warming.. *Science Advances*, **2022**, 8, eabm3230	14.3	0
1067	Global distribution and drivers of forest biome foliar nitrogen to phosphorus ratios (N:P). *Global Ecology and Biogeography*, **2022**, 31, 861-871	6.1	1
1066	Advancing Global Biodiversity Governance: Recommendations for Strengthening the Post-2020 Global Biodiversity Framework. *Anthropocene Science*, **2022**, 1, 195-203		0
1065	A Broadband Green-Red Vegetation Index for Monitoring Gross Primary Production Phenology. *Journal of Remote Sensing*, **2022**, 2022, 1-10		4
1064	Effects of slag and biochar amendments on microorganisms and fractions of soil organic carbon during flooding in a paddy field after two years in southeastern China.. *Science of the Total Environment*, **2022**, 824, 153783	10.2	1
1063	Response of functional traits in Machilus pauhoi to nitrogen addition is influenced by differences of provenances. *Forest Ecology and Management*, **2022**, 513, 120207	3.9	0
1062	Combining NDVI, PRI and the quantum yield of solar-induced fluorescence improves estimations of carbon fluxes in deciduous and evergreen forests.. *Science of the Total Environment*, **2022**, 154681	10.2	1
1061	Globally limited individual and combined effects of multiple global change factors on allometric biomass partitioning. *Global Ecology and Biogeography*, **2022**, 31, 454-469	6.1	0
1060	The amounts and ratio of nitrogen and phosphorus addition drive the rate of litter decomposition in a subtropical forest.. *Science of the Total Environment*, **2022**, 155163	10.2	0
1059	Oxidation product characterization from ozonolysis of the diterpene <i>ent</i>-kaurene. *Atmospheric Chemistry and Physics*, **2022**, 22, 5619-5637	6.8	0
1058	The EU needs a nutrient directive. *Nature Reviews Earth & Environment*, **2022**, 3, 287-288	30.2	0
1057	Global Carbon Budget 2021. *Earth System Science Data*, **2022**, 14, 1917-2005	10.5	47
1056	Carbon, Nitrogen and Phosphorus Stoichiometry in Natural and Plantation Forests in China. *Forests*, **2022**, 13, 755	2.8	0

1055	Balancing greenhouse gas sources and sinks: Inventories, budgets, and climate policy **2022**, 3-28		
1054	Taste and Smell: A Unifying Chemosensory Theory. *Quarterly Review of Biology*, **2022**, 97, 69-94	5.4	0
1053	Fluorescence ratio and photochemical reflectance index as a proxy for photosynthetic quantum efficiency of photosystem II along a phosphorus gradient. *Agricultural and Forest Meteorology*, **2022** , 322, 109019	5.8	0
1052	Large loss and rapid recovery of vegetation cover and aboveground biomass over forest areas in Australia during 2019–2020. *Remote Sensing of Environment*, **2022**, 278, 113087	13.2	1
1051	Measuring root exudate metabolites in holm oak (Quercus ilex) under drought and recovery **2022**, 17-28		
1050	Thermal Acclimation of Foliar Carbon Metabolism in Along an Elevational Gradient.. *Frontiers in Plant Science*, **2021**, 12, 778045	6.2	
1049	Nitrogen enrichment buffers phosphorus limitation by mobilizing mineral-bound soil phosphorus in grasslands.. *Ecology*, **2021**, e3616	4.6	1
1048	Climatic and soil factors explain the two-dimensional spectrum of global plant trait variation.. *Nature Ecology and Evolution*, **2021**,	12.3	6
1047	Decay of similarity across tropical forest communities: integrating spatial distance with soil nutrients. *Ecology*, **2021**, e03599	4.6	1
1046	Multi-decadal increase of forest burned area in Australia is linked to climate change. *Nature Communications*, **2021**, 12, 6921	17.4	26
1045	Evolution of Human Salivary Stress Markers during an Eight-Hour Exposure to a Mediterranean Holm Oak Forest. A Pilot Study. *Forests*, **2021**, 12, 1600	2.8	2
1044	Is the climate change mitigation effect of enhanced silicate weathering governed by biological processes?. *Global Change Biology*, **2021**,	11.4	1
1043	Natural forests promote phosphorus retention in soil. *Global Change Biology*, **2021**,	11.4	2
1042	Interactive effects of soil water content and nutrients on root exudation in two Mediterranean tree species. *Soil Biology and Biochemistry*, **2021**, 163, 108453	7.5	1
1041	Does biological rhythm transmit from plants to rhizosphere microbes?. *Environmental Microbiology*, **2021**, 23, 6895-6906	5.2	1
1040	ForestTemp - Sub-canopy microclimate temperatures of European forests. *Global Change Biology*, **2021**, 27, 6307-6319	11.4	5
1039	Monitoring Compliance in Pandemic Management with Air Pollution Data: A Lesson From COVID-19. *Environmental Science & Technology*, **2021**, 55, 13571-13574	10.3	0
1038	A systematic global stocktake of evidence on human adaptation to climate change. *Nature Climate Change*, **2021**, 11, 989-1000	21.4	34

1037	Increasing climatic sensitivity of global grassland vegetation biomass and species diversity correlates with water availability. *New Phytologist*, **2021**, 230, 1761-1771	9.8	3
1036	Different sets of traits explain abundance and distribution patterns of European plants at different spatial scales. *Journal of Vegetation Science*, **2021**, 32, e13016	3.1	2
1035	Photoperiod decelerates the advance of spring phenology of six deciduous tree species under climate warming. *Global Change Biology*, **2021**, 27, 2914-2927	11.4	5
1034	Divergent effects of drought and nitrogen deposition on microbial and arthropod soil communities in a Mediterranean forest. *European Journal of Soil Biology*, **2021**, 103, 103275	2.9	2
1033	Divergent responses of phenology and growth to summer and autumnal warming. *Global Change Biology*, **2021**, 27, 2905-2913	11.4	1
1032	Climate Change Effects in a Mediterranean Forest Following 21 Consecutive Years of Experimental Drought. *Forests*, **2021**, 12, 306	2.8	4
1031	Measuring temporal patterns in ecology: The case of mast seeding. *Ecology and Evolution*, **2021**, 11, 2990-2996	2.8	1
1030	The impact of climate warming on species diversity across scales: Lessons from experimental meta-ecosystems. *Global Ecology and Biogeography*, **2021**, 30, 1545-1554	6.1	0
1029	Changes in soil carbon, nitrogen, and phosphorus contents, storages, and stoichiometry during land degradation in jasmine croplands in subtropical China. *Experimental Agriculture*, **2021**, 57, 113-125	1.7	2
1028	Natural abundance of C and N provides evidence for plant-soil carbon and nitrogen dynamics in a N-fertilized meadow. *Ecology*, **2021**, 102, e03348	4.6	1
1027	Widespread decline in winds delayed autumn foliar senescence over high latitudes. *Proceedings of the National Academy of Sciences of the United States of America*, **2021**, 118,	11.5	14
1026	Metabolomics and transcriptomics to decipher molecular mechanisms underlying ectomycorrhizal root colonization of an oak tree. *Scientific Reports*, **2021**, 11, 8576	4.9	1
1025	Bryophyte C:N:P stoichiometry, biogeochemical niches and elementome plasticity driven by environment and coexistence. *Ecology Letters*, **2021**, 24, 1375-1386	10	6
1024	Functional leaf traits indicate phylogenetic signals in forests across an elevational gradient in the central Himalaya. *Journal of Plant Research*, **2021**, 134, 753-764	2.6	1
1023	Reply to: Disentangling biology from mathematical necessity in twentieth-century gymnosperm resilience trends. *Nature Ecology and Evolution*, **2021**, 5, 736-737	12.3	0
1022	The human dimension of biodiversity changes on islands. *Science*, **2021**, 372, 488-491	33.3	23
1021	Nutrients control reproductive traits of hygrophytic bryophytes. *Freshwater Biology*, **2021**, 66, 1436-1446	3.1	1
1020	Deciphering Potential Roles of Earthworms in Mitigation of Antibiotic Resistance in the Soils from Diverse Ecosystems. *Environmental Science & Technology*, **2021**, 55, 7445-7455	10.3	11

1019	Spatially explicit analysis identifies significant potential for bioenergy with carbon capture and storage in China. *Nature Communications*, **2021**, 12, 3159	17.4	14
1018	How Nitrogen and Phosphorus Availability Change Water Use Efficiency in a Mediterranean Savanna Ecosystem. *Journal of Geophysical Research G: Biogeosciences*, **2021**, 126, e2020JG006005	3.7	1
1017	Global Change and Forest Disturbances in the Mediterranean Basin: Breakthroughs, Knowledge Gaps, and Recommendations. *Forests*, **2021**, 12, 603	2.8	17
1016	Diffusive CH4 fluxes from aquaculture ponds using floating chambers and thin boundary layer equations. *Atmospheric Environment*, **2021**, 253, 118384	5.3	2
1015	High plasticity in germination and establishment success in the dominant forest tree Fagus sylvatica across Europe. *Global Ecology and Biogeography*, **2021**, 30, 1583-1596	6.1	3
1014	Short-Term N-Fertilization Differently Affects the Leaf and Leaf Litter Chemistry of the Dominant Species in a Mediterranean Forest under Drought Conditions. *Forests*, **2021**, 12, 605	2.8	0
1013	Global patterns and drivers of rainfall partitioning by trees and shrubs. *Global Change Biology*, **2021**, 27, 3350-3357	11.4	9
1012	Recent advances and future research in ecological stoichiometry. *Perspectives in Plant Ecology, Evolution and Systematics*, **2021**, 50, 125611	3	10
1011	sPlotOpen An environmentally balanced, open-access, global dataset of vegetation plots. *Global Ecology and Biogeography*, **2021**, 30, 1740-1764	6.1	6
1010	Root traits explain plant species distributions along climatic gradients yet challenge the nature of ecological trade-offs. *Nature Ecology and Evolution*, **2021**, 5, 1123-1134	12.3	11
1009	Human absorption of monoterpenes after a 2-h forest exposure: A field experiment in a Mediterranean holm oak forest. *Journal of Pharmaceutical and Biomedical Analysis*, **2021**, 200, 114080	3.5	2
1008	Phosphorus mobilization and availability across the freshwater to oligohaline water transition in subtropical estuarine marshes. *Catena*, **2021**, 201, 105195	5.8	2
1007	High foliar K and P resorption efficiencies in old-growth tropical forests growing on nutrient-poor soils. *Ecology and Evolution*, **2021**, 11, 8969-8982	2.8	4
1006	Influences of international agricultural trade on the global phosphorus cycle and its associated issues. *Global Environmental Change*, **2021**, 69, 102282	10.1	2
1005	Potential CO2 removal from enhanced weathering by ecosystem responses to powdered rock. *Nature Geoscience*, **2021**, 14, 545-549	18.3	10
1004	Dynamics of volatile organic compounds in a western Mediterranean oak forest. *Atmospheric Environment*, **2021**, 257, 118447	5.3	3
1003	Shifts in the Abundances of Saprotrophic and Ectomycorrhizal Fungi With Altered Leaf Litter Inputs. *Frontiers in Plant Science*, **2021**, 12, 682142	6.2	3
1002	Ambient climate determines the directional trend of community stability under warming and grazing. *Global Change Biology*, **2021**, 27, 5198-5210	11.4	1

1001	Warming affects soil metabolome: The case study of Icelandic grasslands. *European Journal of Soil Biology*, **2021**, 105, 103317	2.9	
1000	Impact of Nutrient Additions on Free-Living Nitrogen Fixation in Litter and Soil of Two French-Guianese Lowland Tropical Forests. *Journal of Geophysical Research G: Biogeosciences*, **2021**, 126, e2020JG006023	3.7	2
999	Denitrification rates in tidal marsh soils: The roles of soil texture, salinity and nitrogen enrichment. *European Journal of Soil Science*, **2021**, 72, 474-479	3.4	3
998	Temperature controls growth of Pinus taiwanensis along an elevational gradient. *Trees - Structure and Function*, **2021**, 35, 433-440	2.6	3
997	Integrating the evidence for a terrestrial carbon sink caused by increasing atmospheric CO. *New Phytologist*, **2021**, 229, 2413-2445	9.8	94
996	Empirical estimates of regional carbon budgets imply reduced global soil heterotrophic respiration. *National Science Review*, **2021**, 8, nwaa145	10.8	30
995	Developing holistic models of the structure and function of the soil/plant/atmosphere continuum. *Plant and Soil*, **2021**, 461, 29-42	4.2	4
994	Effects of crabs on greenhouse gas emissions, soil nutrients, and stoichiometry in a subtropical estuarine wetland. *Biology and Fertility of Soils*, **2021**, 57, 131-144	6.1	4
993	Advances in hyperspectral remote sensing of vegetation traits and functions. *Remote Sensing of Environment*, **2021**, 252, 112121	13.2	13
992	GLOVOCS - Master compound assignment guide for proton transfer reaction mass spectrometry users. *Atmospheric Environment*, **2021**, 244, 117929	5.3	7
991	A model for estimating transpiration from remotely sensed solar-induced chlorophyll fluorescence. *Remote Sensing of Environment*, **2021**, 252, 112134	13.2	11
990	Phosphorus addition decreases microbial residual contribution to soil organic carbon pool in a tropical coastal forest. *Global Change Biology*, **2021**, 27, 454-466	11.4	21
989	Lessons learned from COVID-19 on potentially pathogenic soil microorganisms. *Soil Ecology Letters*, **2021**, 3, 1-5	2.7	9
988	Interacting effects of urea and water addition on soil mineral-bound phosphorus dynamics in semi-arid grasslands with different land-use history. *European Journal of Soil Science*, **2021**, 72, 946-962	3.4	5
987	A Threshold Method for Robust and Fast Estimation of Land-Surface Phenology Using Google Earth Engine. *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing*, **2021**, 14, 601-606	4.7	5
986	Typhoon-induced increases in porewater nutrient concentrations and CO2 and CH4 emissions associated with salinity and carbon intrusion in a subtropical tidal wetland in China: A mesocosm study. *Geoderma*, **2021**, 384, 114800	6.7	0
985	Comparable canopy and soil free-living nitrogen fixation rates in a lowland tropical forest. *Science of the Total Environment*, **2021**, 754, 142202	10.2	3
984	Global root traits (GRooT) database. *Global Ecology and Biogeography*, **2021**, 30, 25-37	6.1	28

983	Ten new insights in climate science 2020 – a horizon scan. *Global Sustainability*, **2021**, 4,	5.4	7
982	Ecosystem Collapse and Climate Change: An Introduction. *Ecological Studies*, **2021**, 1-9	1.1	3
981	Empirical support for the biogeochemical niche hypothesis in forest trees. *Nature Ecology and Evolution*, **2021**, 5, 184-194	12.3	14
980	Data-driven estimates of global litter production imply slower vegetation carbon turnover. *Global Change Biology*, **2021**, 27, 1678-1688	11.4	2
979	Climatic and evolutionary contexts are required to infer plant life history strategies from functional traits at a global scale. *Ecology Letters*, **2021**, 24, 970-983	10	4
978	Impacts of Use and Abuse of Nature in Catalonia with Proposals for Sustainable Management. *Land*, **2021**, 10, 144	3.5	2
977	Soil Cover Improves Soil Quality in a Young Walnut Forest in the Sichuan Basin, China. *Forests*, **2021**, 12, 236	2.8	3
976	Seasonal biological carryover dominates northern vegetation growth. *Nature Communications*, **2021**, 12, 983	17.4	9
975	Potassium Control of Plant Functions: Ecological and Agricultural Implications. *Plants*, **2021**, 10,	4.5	30
974	The Mediterranean Region as a Paradigm of the Global Decoupling of N and P Between Soils and Freshwaters. *Global Biogeochemical Cycles*, **2021**, 35, e2020GB006874	5.9	2
973	Recent leveling off of vegetation greenness and primary production reveals the increasing soil water limitations on the greening Earth. *Science Bulletin*, **2021**, 66, 1462-1471	10.6	6
972	Monitoring the Responses of Deciduous Forest Phenology to 2000–2018 Climatic Anomalies in the Northern Hemisphere. *Remote Sensing*, **2021**, 13, 2806	5	0
971	Stability of elemental content correlates with plant resistance to soil impoverishment. *Plant and Soil*, **2021**, 467, 213	4.2	1
970	Faster recovery of soil biodiversity in native species mixture than in Eucalyptus monoculture after 60´years afforestation in tropical degraded coastal terraces. *Global Change Biology*, **2021**, 27, 5329-5340	11.4	1
969	Eco-evolutionary optimality as a means to improve vegetation and land-surface models. *New Phytologist*, **2021**, 231, 2125-2141	9.8	10
968	Response of soil nutrient concentrations and stoichiometry, and greenhouse gas carbon emissions linked to change in land-use of paddy fields in China. *Catena*, **2021**, 203, 105326	5.8	3
967	Predicting the effect of confinement on the COVID-19 spread using machine learning enriched with satellite air pollution observations. *Proceedings of the National Academy of Sciences of the United States of America*, **2021**, 118,	11.5	4
966	Disentangling climate from soil nutrient effects on plant biomass production using a multispecies phytometer. *Ecosphere*, **2021**, 12, e03719	3.1	2

965	Rice paddy soils are a quantitatively important carbon store according to a global synthesis. *Communications Earth & Environment*, **2021**, 2,	6.1	11
964	Low-level saltwater intrusion alters soil diazotrophic community structure in a subtropical estuarine wetland. *Applied Soil Ecology*, **2021**, 164, 103959	5	0
963	The effect of global change on soil phosphatase activity. *Global Change Biology*, **2021**, 27, 5989-6003	11.4	8
962	Carbon limitation overrides acidification in mediating soil microbial activity to nitrogen enrichment in a temperate grassland. *Global Change Biology*, **2021**, 27, 5976-5988	11.4	3
961	Phosphorus addition reverses the negative effect of nitrogen addition on soil arthropods during litter decomposition in a subtropical forest. *Science of the Total Environment*, **2021**, 781, 146786	10.2	3
960	The three major axes of terrestrial ecosystem function. *Nature*, **2021**, 598, 468-472	50.4	8
959	Ecometabolomics of plant–herbivore and plant–fungi interactions: a synthesis study. *Ecosphere*, **2021**, 12, e03736	3.1	3
958	Response to Comments on "Recent global decline of CO fertilization effects on vegetation photosynthesis". *Science*, **2021**, 373, eabg7484	33.3	2
957	Implications of mistletoe parasitism for the host metabolome: A new plant identity in the forest canopy. *Plant, Cell and Environment*, **2021**, 44, 3655-3666	8.4	1
956	Gammaproteobacteria, a core taxon in the guts of soil fauna, are potential responders to environmental concentrations of soil pollutants. *Microbiome*, **2021**, 9, 196	16.6	7
955	Simulated climate change and seasonal drought increase carbon and phosphorus demand in Mediterranean forest soils. *Soil Biology and Biochemistry*, **2021**, 163, 108424	7.5	2
954	Effects of addition of nitrogen-enriched biochar on bacteria and fungi community structure and C, N, P, and Fe stoichiometry in subtropical paddy soils. *European Journal of Soil Biology*, **2021**, 106, 103351	2.9	3
953	No benefits from warming even for subnival vegetation in the central Himalayas. *Science Bulletin*, **2021**, 66, 1825-1829	10.6	6
952	Forest resilience to global warming is strongly modulated by local-scale topographic, microclimatic and biotic conditions. *Journal of Ecology*, **2021**, 109, 3322-3339	6	4
951	Effects of nitrogen-enriched biochar on rice growth and yield, iron dynamics, and soil carbon storage and emissions: A tool to improve sustainable rice cultivation. *Environmental Pollution*, **2021**, 287, 117565	9.3	8
950	Soil phosphorus availability affects diazotroph communities during vegetation succession in lowland subtropical forests. *Applied Soil Ecology*, **2021**, 166, 104009	5	4
949	Divergent effects of snow exclusion on microbial variables across aggregate size classes. *Catena*, **2021**, 206, 105481	5.8	
948	Legacy effects of spring phenology on vegetation growth under preseason meteorological drought in the Northern Hemisphere. *Agricultural and Forest Meteorology*, **2021**, 310, 108630	5.8	7

947	Climatic and edaphic controls over the elevational pattern of microbial necromass in subtropical forests. *Catena*, **2021**, 207, 105707	5.8	1
946	Changes in soil enzymatic activity in a P-limited Mediterranean shrubland subject to experimental nitrogen deposition. *Applied Soil Ecology*, **2021**, 168, 104159	5	0
945	Soil nutrient variation along a shallow catena in Paracou, French Guiana. *Soil Research*, **2021**, 59, 130	1.8	2
944	Cyanobacterial blooms contribute to the diversity of antibiotic-resistance genes in aquatic ecosystems. *Communications Biology*, **2020**, 3, 737	6.7	14
943	Recent global decline of CO fertilization effects on vegetation photosynthesis. *Science*, **2020**, 370, 1295-1300	33.9	107
942	The Additions of Nitrogen and Sulfur Synergistically Decrease the Release of Carbon and Nitrogen from Litter in a Subtropical Forest. *Forests*, **2020**, 11, 1280	2.8	3
941	Wood vs. Canopy Allocation of Aboveground Net Primary Productivity in a Mediterranean Forest during 21 Years of Experimental Rainfall Exclusion. *Forests*, **2020**, 11, 1094	2.8	4
940	Timeline of autumn phenology in temperate deciduous trees. *Tree Physiology*, **2020**, 40, 1001-1013	4.2	15
939	Effects of decadal experimental drought and climate extremes on vegetation growth in Mediterranean forests and shrublands. *Journal of Vegetation Science*, **2020**, 31, 768-779	3.1	6
938	Temporary reduction in daily global CO2 emissions during the COVID-19 forced confinement. *Nature Climate Change*, **2020**, 10, 647-653	21.4	842
937	Improvement in municipal wastewater treatment alters lake nitrogen to phosphorus ratios in populated regions. *Proceedings of the National Academy of Sciences of the United States of America*, **2020**, 117, 11566-11572	11.5	59
936	Organizing principles for vegetation dynamics. *Nature Plants*, **2020**, 6, 444-453	11.5	32
935	Atmospheric deposition of elements and its relevance for nutrient budgets of tropical forests. *Biogeochemistry*, **2020**, 149, 175-193	3.8	17
934	Inter-individual variability in spring phenology of temperate deciduous trees depends on species, tree size and previous year autumn phenology. *Agricultural and Forest Meteorology*, **2020**, 290, 108031	5.8	18
933	Plant Secondary Compounds in Soil and Their Role in Belowground Species Interactions. *Trends in Ecology and Evolution*, **2020**, 35, 716-730	10.9	16
932	Epitaxial diamond on Ir/ SrTiO3/Si (001): From sequential material characterizations to fabrication of lateral Schottky diodes. *Diamond and Related Materials*, **2020**, 105, 107768	3.5	12
931	Ecometabolomics for a Better Understanding of Plant Responses and Acclimation to Abiotic Factors Linked to Global Change. *Metabolites*, **2020**, 10,	5.6	20
930	Temporal trade-off between gymnosperm resistance and resilience increases forest sensitivity to extreme drought. *Nature Ecology and Evolution*, **2020**, 4, 1075-1083	12.3	42

929	Divergent responses of soil organic carbon to afforestation. *Nature Sustainability*, **2020**, 3, 694-700	22.1	39
928	Reply to: Nutrient scarcity cannot cause mast seeding. *Nature Plants*, **2020**, 6, 763-765	11.5	3
927	Drought is a stronger driver of soil respiration and microbial communities than nitrogen or phosphorus addition in two Mediterranean tree species. *Science of the Total Environment*, **2020**, 735, 139554	10.2	7
926	Long-term drought decreases ecosystem C and nutrient storage in a Mediterranean holm oak forest. *Environmental and Experimental Botany*, **2020**, 177, 104135	5.9	8
925	Dam Construction as an Important Anthropogenic Activity Disturbing Soil Organic Carbon in Affected Watersheds. *Environmental Science & Technology*, **2020**, 54, 7932-7941	10.3	2
924	Crystal phase engineering of self-catalyzed GaAs nanowires using a RHEED diagram. *Nanoscale Advances*, **2020**, 2, 2127-2134	5.1	6
923	Can light-saturated photosynthesis in lowland tropical forests be estimated by one light level?. *Biotropica*, **2020**, 52, 1183-1193	2.3	1
922	Different "metabolomic niches" of the highly diverse tree species of the French Guiana rainforests. *Scientific Reports*, **2020**, 10, 6937	4.9	6
921	Human Breathable Air in a Mediterranean Forest: Characterization of Monoterpene Concentrations under the Canopy. *International Journal of Environmental Research and Public Health*, **2020**, 17,	4.6	12
920	Assessing intraspecific trait variability during seedling establishment to improve restoration of tropical dry forests. *Ecosphere*, **2020**, 11, e03052	3.1	1
919	Coping with branch excision when measuring leaf net photosynthetic rates in a lowland tropical forest. *Biotropica*, **2020**, 52, 608-615	2.3	5
918	Effects of seasonal and decadal warming on soil enzymatic activity in a P-deficient Mediterranean shrubland. *Global Change Biology*, **2020**, 26, 3698-3714	11.4	20
917	Assessing the reliability of predicted plant trait distributions at the global scale. *Global Ecology and Biogeography*, **2020**, 29, 1034-1051	6.1	11
916	Changes in the environmental microbiome in the Anthropocene. *Global Change Biology*, **2020**, 26, 3175-3177	11.4	15
915	Global plant trait relationships extend to the climatic extremes of the tundra biome. *Nature Communications*, **2020**, 11, 1351	17.4	19
914	Increasing atmospheric CO concentrations correlate with declining nutritional status of European forests. *Communications Biology*, **2020**, 3, 125	6.7	25
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22	Identification and quantification of organic aerosol from cooking and other sources in Barcelona using aerosol mass spectrometer data		6
21	DO₃SE modelling of soil moisture to determine ozone flux to European forest trees		5
20	Volatile organic compounds in the Western Mediterranean Basin: urban and rural winter measurements during the DAURE campaign		2
19	Sources, transport and deposition of iron in the global atmosphere		1
18	Process based inventory of isoprenoid emissions from European forests: model comparisons, current knowledge and uncertainties		9
17	Regional detection of canopy nitrogen in Mediterranean forests using the spaceborne MERIS Terrestrial Chlorophyll Index		2
16	Can current moisture responses predict soil CO₂ efflux under altered precipitation regimes? A synthesis of manipulation experiments		2
15	Foliar photochemical processes and carbon metabolism under favourable and adverse winter conditions in a Mediterranean mixed forest, Catalonia (Spain)		2
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13	The emission factor of volatile isoprenoids: stress, acclimation, and developmental responses		3
12	Estimation of isoprenoid emission factors from enclosure studies: measurements, data processing, quality and standardized measurement protocols		4

11	Synthesizing greenhouse gas fluxes across nine European peatlands and shrublands responses to climatic and environmental changes		1
10	Global Carbon Budget 2017		60
9	Global and regional phosphorus budgets in agricultural systems and their implications for phosphorus-use efficiency		2
8	Supplementary material to "Improved representation of plant functional types and physiology in the Joint UK Land Environment Simulator (JULES v4.2) using plant trait information"		3
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