Ivan A Janssens

List of Publications by Citations

345 papers	34,135 citations	83 h-index	180 g-index
378 ext. papers	40,944 ext. citations	9 avg, IF	7.2 L-index

#	Paper	IF	Citations
345	Temperature sensitivity of soil carbon decomposition and feedbacks to climate change. *Nature*, **2006**, 440, 165-73	50.4	4106
344	Persistence of soil organic matter as an ecosystem property. *Nature*, **2011**, 478, 49-56	50.4	3282
343	Reduction of forest soil respiration in response to nitrogen deposition. *Nature Geoscience*, **2010**, 3, 315-322	12.3	988
342	Environmental controls over carbon dioxide and water vapor exchange of terrestrial vegetation. *Agricultural and Forest Meteorology*, **2002**, 113, 97-120	5.8	965
341	On the variability of respiration in terrestrial ecosystems: moving beyond Q10. *Global Change Biology*, **2006**, 12, 154-164	11.4	889
340	Temperature increase reduces global yields of major crops in four independent estimates. *Proceedings of the National Academy of Sciences of the United States of America*, **2017**, 114, 9326-9331	11.5	886
339	CO2 balance of boreal, temperate, and tropical forests derived from a global database. *Global Change Biology*, **2007**, 13, 2509-2537	11.4	744
338	Productivity overshadows temperature in determining soil and ecosystem respiration across European forests. *Global Change Biology*, **2001**, 7, 269-278	11.4	735
337	Anthropogenic perturbation of the carbon fluxes from land to ocean. *Nature Geoscience*, **2013**, 6, 597-607	18.3	695
336	Human-induced nitrogen-phosphorus imbalances alter natural and managed ecosystems across the globe. *Nature Communications*, **2013**, 4, 2934	17.4	679
335	The likely impact of elevated [CO2], nitrogen deposition, increased temperature and management on carbon sequestration in temperate and boreal forest ecosystems: a literature review. *New Phytologist*, **2007**, 173, 463-480	9.8	498
334	Europe's terrestrial biosphere absorbs 7 to 12% of European anthropogenic CO2 emissions. *Science* , **2003**, 300, 1538-42	33.3	497
333	Evidence for soil water control on carbon and water dynamics in European forests during the extremely dry year: 2003. *Agricultural and Forest Meteorology*, **2007**, 143, 123-145	5.8	427
332	Declining global warming effects on the phenology of spring leaf unfolding. *Nature*, **2015**, 526, 104-7	50.4	409
331	Plant phenology and global climate change: Current progresses and challenges. *Global Change Biology*, **2019**, 25, 1922-1940	11.4	382
330	Global convergence in the temperature sensitivity of respiration at ecosystem level. *Science*, **2010**, 329, 838-40	33.3	358
329	Comparison of different chamber techniques for measuring soil CO2 efflux. *Agricultural and Forest Meteorology*, **2004**, 123, 159-176	5.8	355

328	The human-induced imbalance between C, N and P in Earth's life system. *Global Change Biology*, **2012**, 18, 3-6	11.4	348
327	Annual Q10 of soil respiration reflects plant phenological patterns as well as temperature sensitivity. *Global Change Biology*, **2004**, 10, 161-169	11.4	345
326	Asymmetric effects of daytime and night-time warming on Northern Hemisphere vegetation. *Nature*, **2013**, 501, 88-92	50.4	328
325	Large seasonal changes in Q10 of soil respiration in a beech forest. *Global Change Biology*, **2003**, 9, 911-918	11.4	319
324	Precipitation manipulation experiments--challenges and recommendations for the future. *Ecology Letters*, **2012**, 15, 899-911	10	318
323	Temporal and among-site variability of inherent water use efficiency at the ecosystem level. *Global Biogeochemical Cycles*, **2009**, 23, n/a-n/a	5.9	304
322	Simple additive effects are rare: a quantitative review of plant biomass and soil process responses to combined manipulations of CO2 and temperature. *Global Change Biology*, **2012**, 18, 2681-93	11.4	286
321	Mycorrhizal Hyphal Turnover as a Dominant Process for Carbon Input into Soil Organic Matter. *Plant and Soil*, **2006**, 281, 15-24	4.2	283
320	Importance of methane and nitrous oxide for Europe's terrestrial greenhouse-gas balance. *Nature Geoscience*, **2009**, 2, 842-850	18.3	272
319	Nutrient availability as the key regulator of global forest carbon balance. *Nature Climate Change*, **2014**, 4, 471-476	21.4	269
318	Leaf onset in the northern hemisphere triggered by daytime temperature. *Nature Communications*, **2015**, 6, 6911	17.4	261
317	Precipitation impacts on vegetation spring phenology on the Tibetan Plateau. *Global Change Biology*, **2015**, 21, 3647-56	11.4	260
316	Fertile forests produce biomass more efficiently. *Ecology Letters*, **2012**, 15, 520-6	10	211
315	Interactive effects of temperature and precipitation on soil respiration in a temperate maritime pine forest. *Tree Physiology*, **2003**, 23, 1263-70	4.2	210
314	The European carbon balance. Part 3: forests. *Global Change Biology*, **2010**, 16, 1429-1450	11.4	206
313	Delayed autumn phenology in the Northern Hemisphere is related to change in both climate and spring phenology. *Global Change Biology*, **2016**, 22, 3702-3711	11.4	199
312	Whole-system responses of experimental plant communities to climate extremes imposed in different seasons. *New Phytologist*, **2011**, 189, 806-817	9.8	182
311	Joint control of terrestrial gross primary productivity by plant phenology and physiology. *Proceedings of the National Academy of Sciences of the United States of America*, **2015**, 112, 2788-93	11.5	181

310	Global patterns of phosphatase activity in natural soils. *Scientific Reports*, **2017**, 7, 1337	4.9	179
309	Variation in leaf flushing date influences autumnal senescence and next year's flushing date in two temperate tree species. *Proceedings of the National Academy of Sciences of the United States of America*, **2014**, 111, 7355-60	11.5	178
308	Sensitivity of decomposition rates of soil organic matter with respect to simultaneous changes in temperature and moisture. *Journal of Advances in Modeling Earth Systems*, **2015**, 7, 335-356	7.1	178
307	Soil respiration under climate warming: differential response of heterotrophic and autotrophic respiration. *Global Change Biology*, **2014**, 20, 3229-37	11.4	177
306	The European carbon balance. Part 2: croplands. *Global Change Biology*, **2010**, 16, 1409-1428	11.4	165
305	Quality control of CarboEurope flux data Part 1: Coupling footprint analyses with flux data quality assessment to evaluate sites in forest ecosystems. *Biogeosciences*, **2008**, 5, 433-450	4.6	164
304	The carbon budget of terrestrial ecosystems at country-scale a European case study. *Biogeosciences*, **2005**, 2, 15-26	4.6	159
303	Net ecosystem CO2 exchange of mixed forest in Belgium over 5 years. *Agricultural and Forest Meteorology*, **2003**, 119, 209-227	5.8	156
302	Strong impacts of daily minimum temperature on the green-up date and summer greenness of the Tibetan Plateau. *Global Change Biology*, **2016**, 22, 3057-66	11.4	147
301	Global comparison of light use efficiency models for simulating terrestrial vegetation gross primary production based on the LaThuile database. *Agricultural and Forest Meteorology*, **2014**, 192-193, 108-120	5.8	145
300	Soil water repellency and its implications for organic matter decomposition s there a link to extreme climatic events?. *Global Change Biology*, **2011**, 17, 2640-2656	11.4	145
299	Recent spring phenology shifts in western Central Europe based on multiscale observations. *Global Ecology and Biogeography*, **2014**, 23, 1255-1263	6.1	143
298	Assessing forest soil CO(2) efflux: an in situ comparison of four techniques. *Tree Physiology*, **2000**, 20, 23-32	4.2	142
297	The European carbon balance. Part 4: integration of carbon and other trace-gas fluxes. *Global Change Biology*, **2010**, 16, 1451-1469	11.4	138
296	Forest annual carbon cost: a global-scale analysis of autotrophic respiration. *Ecology*, **2010**, 91, 652-61	4.6	137
295	Phase and amplitude of ecosystem carbon release and uptake potentials as derived from FLUXNET measurements. *Agricultural and Forest Meteorology*, **2002**, 113, 75-95	5.8	136
294	Hidden, abiotic CO2 flows and gaseous reservoirs in the terrestrial carbon cycle: Review and perspectives. *Agricultural and Forest Meteorology*, **2010**, 150, 321-329	5.8	129
293	Air temperature optima of vegetation productivity across global biomes. *Nature Ecology and Evolution*, **2019**, 3, 772-779	12.3	128

292	Above-ground woody carbon sequestration measured from tree rings is coherent with net ecosystem productivity at five eddy-covariance sites. *New Phytologist*, **2014**, 201, 1289-1303	9.8	126
291	Unexpected role of winter precipitation in determining heat requirement for spring vegetation green-up at northern middle and high latitudes. *Global Change Biology*, **2014**, 20, 3743-55	11.4	122
290	Climatic characteristics of heat waves and their simulation in plant experiments. *Global Change Biology*, **2010**, 16, 1992-2000	11.4	117
289	Summer heat and drought extremes trigger unexpected changes in productivity of a temperate annual/biannual plant community. *Environmental and Experimental Botany*, **2012**, 79, 21-30	5.9	115
288	Physiological, biochemical, and genome-wide transcriptional analysis reveals that elevated CO2 mitigates the impact of combined heat wave and drought stress in Arabidopsis thaliana at multiple organizational levels. *Global Change Biology*, **2014**, 20, 3670-85	11.4	111
287	Microbial temperature sensitivity and biomass change explain soil carbon loss with warming. *Nature Climate Change*, **2018**, 8, 885-889	21.4	110
286	Weakening temperature control on the interannual variations of spring carbon uptake across northern lands. *Nature Climate Change*, **2017**, 7, 359-363	21.4	107
285	Recent global decline of CO fertilization effects on vegetation photosynthesis. *Science*, **2020**, 370, 1295-1300	3[illegible]9	107
284	Changes in nutrient concentrations of leaves and roots in response to global change factors. *Global Change Biology*, **2017**, 23, 3849-3856	11.4	106
283	Extension of the growing season increases vegetation exposure to frost. *Nature Communications*, **2018**, 9, 426	17.4	106
282	Summer soil drying exacerbated by earlier spring greening of northern vegetation. *Science Advances*, **2020**, 6, eaax0255	14.3	106
281	The impact of lateral carbon fluxes on the European carbon balance. *Biogeosciences*, **2008**, 5, 1259-1271	4.6	104
280	Increased heat requirement for leaf flushing in temperate woody species over 1980-2012: effects of chilling, precipitation and insolation. *Global Change Biology*, **2015**, 21, 2687-2697	11.4	103
279	The carbon cost of fine root turnover in a Scots pine forest. *Forest Ecology and Management*, **2002**, 168, 231-240	3.9	102
278	The contribution of nitrogen deposition to the photosynthetic capacity of forests. *Global Biogeochemical Cycles*, **2013**, 27, 187-199	5.9	101
277	Above- and belowground biomass and net primary production in a 73-year-old Scots pine forest. *Tree Physiology*, **2003**, 23, 505-16	4.2	101
276	Effects of CO2Enrichment on Trees and Forests: Lessons to be Learned in View of Future Ecosystem Studies. *Annals of Botany*, **1999**, 84, 577-590	4.1	101
275	Shifting from a fertilization-dominated to a warming-dominated period. *Nature Ecology and Evolution*, **2017**, 1, 1438-1445	12.3	99

274	Basal rates of soil respiration are correlated with photosynthesis in a mixed temperate forest. *Global Change Biology*, **2007**, 13, 2008-2017	11.4	99
273	Global forest carbon uptake due to nitrogen and phosphorus deposition from 1850 to 2100. *Global Change Biology*, **2017**, 23, 4854-4872	11.4	95
272	Soil respiration in a mixed temperate forest and its contribution to total ecosystem respiration. *Tree Physiology*, **2005**, 25, 609-19	4.2	94
271	Plant invasion is associated with higher plant-soil nutrient concentrations in nutrient-poor environments. *Global Change Biology*, **2017**, 23, 1282-1291	11.4	91
270	Potential for large-scale CO removal via enhanced rock weathering with croplands. *Nature*, **2020**, 583, 242-248	50.4	89
269	Soil respiration at mean annual temperature predicts annual total across vegetation types and biomes. *Biogeosciences*, **2010**, 7, 2147-2157	4.6	87
268	Are ecological gradients in seasonal Q10 of soil respiration explained by climate or by vegetation seasonality?. *Soil Biology and Biochemistry*, **2010**, 42, 1728-1734	7.5	87
267	Elevated atmospheric CO2 increases fine root production, respiration, rhizosphere respiration and soil CO2 efflux in Scots pine seedlings. *Global Change Biology*, **1998**, 4, 871-878	11.4	87
266	Can flux tower research neglect geochemical CO2 exchange?. *Agricultural and Forest Meteorology*, **2008**, 148, 1045-1054	5.8	87
265	Latitudinal patterns of magnitude and interannual variability in net ecosystem exchange regulated by biological and environmental variables. *Global Change Biology*, **2009**, 15, 2905-2920	11.4	84
264	Few multiyear precipitation-reduction experiments find a shift in the productivity-precipitation relationship. *Global Change Biology*, **2016**, 22, 2570-81	11.4	84
263	Chemical characterisation of atmospheric aerosols during a 2007 summer field campaign at Brasschaat, Belgium: sources and source processes of biogenic secondary organic aerosol. *Atmospheric Chemistry and Physics*, **2012**, 12, 125-138	6.8	83
262	Fluxes of the greenhouse gases (CO2, CH4 and N2O) above a short-rotation poplar plantation after conversion from agricultural land. *Agricultural and Forest Meteorology*, **2013**, 169, 100-110	5.8	82
261	Seasonal changes in photosynthesis, respiration and NEE of a mixed temperate forest. *Agricultural and Forest Meteorology*, **2004**, 126, 15-31	5.8	82
260	Above- and belowground phytomass and carbon storage in a Belgian Scots pine stand. *Annales Des Sciences Forestières*, **1999**, 56, 81-90		81
259	Biomass production efficiency controlled by management in temperate and boreal ecosystems. *Nature Geoscience*, **2015**, 8, 843-846	18.3	79
258	Steeper declines in forest photosynthesis than respiration explain age-driven decreases in forest growth. *Proceedings of the National Academy of Sciences of the United States of America*, **2014**, 111, 8856-60	11.5	79
257	A representation of the phosphorus cycle for ORCHIDEE (revision 4520). *Geoscientific Model Development*, **2017**, 10, 3745-3770	6.3	78

256	Forest floor CO2 fluxes estimated by eddy covariance and chamber-based model. *Agricultural and Forest Meteorology*, **2001**, 106, 61-69	5.8	78
255	Global trends in carbon sinks and their relationships with CO2 and temperature. *Nature Climate Change*, **2019**, 9, 73-79	21.4	77
254	Comparison of Fine Root Dynamics in Scots Pine and Pedunculate Oak in Sandy Soil. *Plant and Soil*, **2005**, 276, 33-45	4.2	76
253	Microbial carbon limitation: The need for integrating microorganisms into our understanding of ecosystem carbon cycling. *Global Change Biology*, **2019**, 26, 1953	11.4	74
252	Foliar elemental composition of European forest tree species associated with evolutionary traits and present environmental and competitive conditions. *Global Ecology and Biogeography*, **2015**, 24, 240-255	6.1	73
251	Pathways for balancing CO emissions and sinks. *Nature Communications*, **2017**, 8, 14856	17.4	72
250	The bioelements, the elementome, and the biogeochemical niche. *Ecology*, **2019**, 100, e02652	4.6	71
249	Thermal acclimation of organic matter decomposition in an artificial forest soil is related to shifts in microbial community structure. *Soil Biology and Biochemistry*, **2014**, 71, 1-12	7.5	69
248	Linking variability in soil solution dissolved organic carbon to climate, soil type, and vegetation type. *Global Biogeochemical Cycles*, **2014**, 28, 497-509	5.9	69
247	Global pattern and controls of soil microbial metabolic quotient. *Ecological Monographs*, **2017**, 87, 429-441	9	68
246	Irrigation and enhanced soil carbon input effects on below-ground carbon cycling in semiarid temperate grasslands. *New Phytologist*, **2007**, 174, 835-846	9.8	67
245	High clay content accelerates the decomposition of fresh organic matter in artificial soils. *Soil Biology and Biochemistry*, **2014**, 77, 100-108	7.5	66
244	The impact of winter and spring temperatures on temperate tree budburst dates: results from an experimental climate manipulation. *PLoS ONE*, **2012**, 7, e47324	3.7	66
243	Net carbon storage in a poplar plantation (POPFACE) after three years of free-air CO2 enrichment. *Tree Physiology*, **2005**, 25, 1399-408	4.2	66
242	Characterisation of ecosystem water-use efficiency of european forests from eddy covariance measurements		66
241	Impact of priming on global soil carbon stocks. *Global Change Biology*, **2018**, 24, 1873-1883	11.4	64
240	Evaluating the convergence between eddy-covariance and biometric methods for assessing carbon budgets of forests. *Nature Communications*, **2016**, 7, 13717	17.4	64
239	Foliar and soil concentrations and stoichiometry of nitrogen and phosphorous across European Pinus sylvestris forests: relationships with climate, N deposition and tree growth. *Functional Ecology*, **2016**, 30, 676-689	5.6	63

238	Contrasting net primary productivity and carbon distribution between neighboring stands of Quercus robur and Pinus sylvestris. *Tree Physiology*, **2005**, 25, 701-12	4.2	63
237	Larger temperature response of autumn leaf senescence than spring leaf-out phenology. *Global Change Biology*, **2018**, 24, 2159-2168	11.4	62
236	Bayesian comparison of six different temperature-based budburst models for four temperate tree species. *Ecological Modelling*, **2012**, 230, 92-100	3	61
235	Climate extreme effects on the chemical composition of temperate grassland species under ambient and elevated CO2: a comparison of fructan and non-fructan accumulators. *PLoS ONE*, **2014**, 9, e92044	3.7	61
234	The influence of local spring temperature variance on temperature sensitivity of spring phenology. *Global Change Biology*, **2014**, 20, 1473-80	11.4	61
233	Stand age and species richness dampen interannual variation of ecosystem-level photosynthetic capacity. *Nature Ecology and Evolution*, **2017**, 1, 48	12.3	60
232	Sensitivity of leaf unfolding to experimental warming in three temperate tree species. *Agricultural and Forest Meteorology*, **2013**, 181, 125-132	5.8	60
231	Can current moisture responses predict soil CO₂ efflux under altered precipitation regimes? A synthesis of manipulation experiments. *Biogeosciences*, **2014**, 11, 2991-3013	4.6	60
230	Divergent changes in the elevational gradient of vegetation activities over the last 30 years. *Nature Communications*, **2019**, 10, 2970	17.4	59
229	Photosynthesis drives anomalies in net carbon-exchange of pine forests at different latitudes. *Global Change Biology*, **2007**, 13, 2110-2127	11.4	59
228	Water flux estimates from a Belgian Scots pine stand: a comparison of different approaches. *Journal of Hydrology*, **2003**, 270, 230-252	6	59
227	The global cropland-sparing potential of high-yield farming. *Nature Sustainability*, **2020**, 3, 281-289	22.1	59
226	How do climate warming and species richness affect CO2 fluxes in experimental grasslands?. *New Phytologist*, **2007**, 175, 512-522	9.8	57
225	Plausible rice yield losses under future climate warming. *Nature Plants*, **2016**, 3, 16202	11.5	55
224	European land CO2 sink influenced by NAO and East-Atlantic Pattern coupling. *Nature Communications*, **2016**, 7, 10315	17.4	54
223	African crop yield reductions due to increasingly unbalanced Nitrogen and Phosphorus consumption. *Global Change Biology*, **2014**, 20, 1278-88	11.4	54
222	Pan-European δ13C values of air and organic matter from forest ecosystems. *Global Change Biology* , **2005**, 11, 1065-1093	11.4	54
221	Nutrient-cycling mechanisms other than the direct absorption from soil may control forest structure and dynamics in poor Amazonian soils. *Scientific Reports*, **2017**, 7, 45017	4.9	53

220	Three times greater weight of daytime than of night-time temperature on leaf unfolding phenology in temperate trees. *New Phytologist*, **2016**, 212, 590-597	9.8	52
219	Asymmetric sensitivity of first flowering date to warming and cooling in alpine plants. *Ecology*, **2014**, 95, 3387-3398	4.6	52
218	Toward a consistency cross-check of eddy covariance flux-based and biometric estimates of ecosystem carbon balance. *Global Biogeochemical Cycles*, **2009**, 23, n/a-n/a	5.9	51
217	Daylength helps temperate deciduous trees to leaf-out at the optimal time. *Global Change Biology*, **2019**, 25, 2410-2418	11.4	50
216	Anthropogenic global shifts in biospheric N and P concentrations and ratios and their impacts on biodiversity, ecosystem productivity, food security, and human health. *Global Change Biology*, **2020**, 26, 1962	11.4	50
215	Seasonal hysteresis of net ecosystem exchange in response to temperature change: patterns and causes. *Global Change Biology*, **2011**, 17, 3102-3114	11.4	49
214	Future Climate CO2 Levels Mitigate Stress Impact on Plants: Increased Defense or Decreased Challenge?. *Frontiers in Plant Science*, **2016**, 7, 556	6.2	49
213	Seasonally different response of photosynthetic activity to daytime and night-time warming in the Northern Hemisphere. *Global Change Biology*, **2015**, 21, 377-87	11.4	48
212	Priming of soil organic matter decomposition scales linearly with microbial biomass response to litter input in steppe vegetation. *Oikos*, **2015**, 124, 649-657	4	48
211	Proton Transfer Reaction Time-of-Flight Mass Spectrometric (PTR-TOF-MS) determination of volatile organic compounds (VOCs) emitted from a biomass fire developed under stable nocturnal conditions. *Atmospheric Environment*, **2014**, 97, 54-67	5.3	47
210	The importance of dissolved organic carbon fluxes for the carbon balance of a temperate Scots pine forest. *Agricultural and Forest Meteorology*, **2011**, 151, 270-278	5.8	46
209	Energy and climate benefits of bioelectricity from low-input short rotation woody crops on agricultural land over a two-year rotation. *Applied Energy*, **2013**, 111, 862-870	10.7	45
208	Stored water use and transpiration in Scots pine: a modeling analysis with ANAFORE. *Tree Physiology*, **2007**, 27, 1671-85	4.2	45
207	Dynamics of metabolic responses to periods of combined heat and drought in Arabidopsis thaliana under ambient and elevated atmospheric CO2. *Journal of Experimental Botany*, **2018**, 69, 2159-2170	7	44
206	Spatial variability and controls over biomass stocks, carbon fluxes, and resource-use efficiencies across forest ecosystems. *Trees - Structure and Function*, **2014**, 28, 597-611	2.6	44
205	Velocity of change in vegetation productivity over northern high latitudes. *Nature Ecology and Evolution*, **2017**, 1, 1649-1654	12.3	43
204	Physiological and molecular alterations in plants exposed to high [CO2] under phosphorus stress. *Biotechnology Advances*, **2015**, 33, 303-16	17.8	42
203	Atmospheric deposition, CO, and change in the land carbon sink. *Scientific Reports*, **2017**, 7, 9632	4.9	41

202	Soil [N] modulates soil C cycling in CO2-fumigated tree stands: a meta-analysis. *Plant, Cell and Environment*, **2010**, 33, 2001-11	8.4	41
201	Net ecosystem production and carbon balance of an SRC poplar plantation during its first rotation. *Biomass and Bioenergy*, **2013**, 56, 412-422	5.3	40
200	New feed sources key to ambitious climate targets. *Carbon Balance and Management*, **2015**, 10, 26	3.6	39
199	Do successive climate extremes weaken the resistance of plant communities? An experimental study using plant assemblages. *Biogeosciences*, **2014**, 11, 109-121	4.6	39
198	N2O fluxes of a bio-energy poplar plantation during a two years rotation period. *GCB Bioenergy*, **2013**, 5, 536-547	5.6	39
197	The greenhouse gas balance of European grasslands		39
196	Ecosystem CO2 fluxes of arbuscular and ectomycorrhizal dominated vegetation types are differentially influenced by precipitation and temperature. *New Phytologist*, **2010**, 185, 226-36	9.8	38
195	Lipid biomarker temperature proxy responds to abrupt shift in the bacterial community composition in geothermally heated soils. *Organic Geochemistry*, **2019**, 137, 103897	3.1	37
194	New insights in the capability of climate models to simulate the impact of LUC based on temperature decomposition of paired site observations. *Journal of Geophysical Research D: Atmospheres*, **2015**, 120, 5417-5436	4.4	36
193	Soil properties explain tree growth and mortality, but not biomass, across phosphorus-depleted tropical forests. *Scientific Reports*, **2020**, 10, 2302	4.9	35
192	On the causes of trends in the seasonal amplitude of atmospheric CO. *Global Change Biology*, **2018**, 24, 608-616	11.4	35
191	Calibration and validation of an empirical approach to model soil CO2 efflux in a deciduous forest. *Biogeochemistry*, **2005**, 73, 209-230	3.8	35
190	Variation of specific leaf area and upscaling to leaf area index in mature Scots pine. *Trees - Structure and Function*, **2006**, 20, 304-310	2.6	34
189	Nutrient scarcity as a selective pressure for mast seeding. *Nature Plants*, **2019**, 5, 1222-1228	11.5	34
188	Diagnosing phosphorus limitations in natural terrestrial ecosystems in carbon cycle models. *Earth's Future*, **2017**, 5, 730-749	7.9	33
187	Field-experiment constraints on the enhancement of the terrestrial carbon sink by CO2 fertilization. *Nature Geoscience*, **2019**, 12, 809-814	18.3	33
186	Climatic Influences on Seasonal and Spatial Differences in Soil CO2 Efflux. *Ecological Studies*, **2003**, 233-253	15.3	33
185	Future climate alleviates stress impact on grassland productivity through altered antioxidant capacity. *Environmental and Experimental Botany*, **2014**, 99, 150-158	5.9	32

184	Footprint-adjusted net ecosystem CO2 exchange and carbon balance components of a temperate forest. *Agricultural and Forest Meteorology*, **2006**, 139, 344-360	5.8	32
183	Short photoperiod reduces the temperature sensitivity of leaf-out in saplings of Fagus sylvatica but not in horse chestnut. *Global Change Biology*, **2019**, 25, 1696-1703	11.4	32
182	Fine root biomass and turnover of two fast-growing poplar genotypes in a short-rotation coppice culture. *Plant and Soil*, **2013**, 373, 269-283	4.2	31
181	Biometric and eddy covariance-based assessment of decadal carbon sequestration of a temperate Scots pine forest. *Agricultural and Forest Meteorology*, **2013**, 174-175, 135-143	5.8	31
180	The role of nutrients, productivity and climate in determining tree fruit production in European forests. *New Phytologist*, **2017**, 213, 669-679	9.8	31
179	Simulated soil CO2 efflux and net ecosystem exchange in a 70-year-old Belgian Scots pine stand using the process model SECRETS. *Annals of Forest Science*, **2001**, 58, 31-46	3.1	31
178	ORCHIMIC (v1.0), a microbe-mediated model for soil organic matter decomposition. *Geoscientific Model Development*, **2018**, 11, 2111-2138	6.3	31
177	Emergent constraint on crop yield response to warmer temperature from field experiments. *Nature Sustainability*, **2020**, 3, 908-916	22.1	30
176	Importance of nondiffusive transport for soil CO efflux in a temperate mountain grassland. *Journal of Geophysical Research G: Biogeosciences*, **2015**, 120, 502-512	3.7	30
175	Atmospheric turbulence triggers pronounced diel pattern in karst carbonate geochemistry. *Biogeosciences*, **2013**, 10, 5009-5017	4.6	30
174	Soil microbial CNP and respiration responses to organic matter and nutrient additions: Evidence from a tropical soil incubation. *Soil Biology and Biochemistry*, **2018**, 122, 141-149	7.5	30
173	Soil carbon and belowground carbon balance of a short-rotation coppice: assessments from three different approaches. *GCB Bioenergy*, **2017**, 9, 299-313	5.6	28
172	Needle age-related and seasonal photosynthetic capacity variation is negligible for modelling yearly gas exchange of a sparse temperate Scots pine forest. *Biogeosciences*, **2010**, 7, 199-215	4.6	28
171	Decadal water balance of a temperate Scots pine forest (<i>Pinus sylvestris</i> L.) based on measurements and modelling. *Biogeosciences*, **2010**, 7, 1247-1261	4.6	28
170	ORCHIDEE-SOM: modeling soil organic carbon (SOC) and dissolved organic carbon (DOC) dynamics along vertical soil profiles in Europe. *Geoscientific Model Development*, **2018**, 11, 937-957	6.3	28
169	Simultaneous leaf- and ecosystem-level fluxes of volatile organic compounds from a poplar-based SRC plantation. *Agricultural and Forest Meteorology*, **2014**, 187, 22-35	5.8	27
168	Does an extreme drought event alter the response of grassland communities to a changing climate?. *Environmental and Experimental Botany*, **2011**, 70, 151-157	5.9	27
167	The North Atlantic Oscillation synchronises fruit production in western European forests. *Ecography*, **2017**, 40, 864-874	6.5	26

166	Phenological responses of Icelandic subarctic grasslands to short-term and long-term natural soil warming. *Global Change Biology*, **2017**, 23, 4932-4945	11.4	26
165	Can publication bias affect ecological research? A case study on soil respiration under elevated CO2. *New Phytologist*, **2011**, 190, 517-21	9.8	26
164	Geothermal ecosystems as natural climate change experiments: The ForHot research site in Iceland as a case study. *Icelandic Agricultural Sciences*, **2016**, 29, 53-71		26
163	Increasing atmospheric CO concentrations correlate with declining nutritional status of European forests. *Communications Biology*, **2020**, 3, 125	6.7	25
162	Simulating the onset of spring vegetation growth across the Northern Hemisphere. *Global Change Biology*, **2018**, 24, 1342-1356	11.4	25
161	Fine root and litterfall dynamics of three Korean pine (Pinus koraiensis) forests along an altitudinal gradient. *Plant and Soil*, **2014**, 374, 19-32	4.2	25
160	Combined effects of warming and elevated CO2 on the impact of drought in grassland species. *Plant and Soil*, **2013**, 369, 497-507	4.2	24
159	No signs of thermal acclimation of heterotrophic respiration from peat soils exposed to different water levels. *Soil Biology and Biochemistry*, **2009**, 41, 2014-2016	7.5	24
158	Under-story contributions to stand level GPP using the process model SECRETS. *Agricultural and Forest Meteorology*, **2006**, 139, 94-104	5.8	24
157	Spatial variance of spring phenology in temperate deciduous forests is constrained by background climatic conditions. *Nature Communications*, **2019**, 10, 5388	17.4	24
156	Thermal adaptation of net ecosystem exchange. *Biogeosciences*, **2011**, 8, 1453-1463	4.6	23
155	Insights into ozone deposition patterns from decade-long ozone flux measurements over a mixed temperate forest. *Journal of Environmental Monitoring*, **2012**, 14, 1684-95		22
154	Nitrogen biogeochemistry of a mature Scots pine forest subjected to high nitrogen loads. *Biogeochemistry*, **2008**, 91, 201-222	3.8	22
153	Soil CO2 efflux rates in different tropical vegetation types in French Guiana. *Annales Des Sciences Forestières*, **1998**, 55, 671-680		22
152	Terrestrial nitrogen cycling in Earth system models revisited. *New Phytologist*, **2016**, 210, 1165-8	9.8	22
151	Rapid leaf development drives the seasonal pattern of volatile organic compound (VOC) fluxes in a 'coppiced' bioenergy poplar plantation. *Plant, Cell and Environment*, **2016**, 39, 539-55	8.4	22
150	Towards comparable assessment of the soil nutrient status across scales-Review and development of nutrient metrics. *Global Change Biology*, **2020**, 26, 392-409	11.4	22
149	Topographic influences on soil properties and aboveground biomass in lucerne-rich vegetation in a semi-arid environment. *Geoderma*, **2019**, 344, 137-143	6.7	21

148	Soil microbial community composition does not predominantly determine the variance of heterotrophic soil respiration across four subtropical forests. *Scientific Reports*, **2015**, 5, 7854	4.9	21
147	Carbon and water vapor fluxes over four forests in two contrasting climatic zones. *Agricultural and Forest Meteorology*, **2013**, 180, 211-224	5.8	21
146	Below-ground carbon inputs contribute more than above-ground inputs to soil carbon accrual in a bioenergy poplar plantation. *Plant and Soil*, **2019**, 434, 363-378	4.2	21
145	Using research networks to create the comprehensive datasets needed to assess nutrient availability as a key determinant of terrestrial carbon cycling. *Environmental Research Letters*, **2018**, 13, 125006	6.2	21
144	Towards more predictive and interdisciplinary climate change ecosystem experiments. *Nature Climate Change*, **2019**, 9, 809-816	21.4	20
143	Ecometabolomics for a Better Understanding of Plant Responses and Acclimation to Abiotic Factors Linked to Global Change. *Metabolites*, **2020**, 10,	5.6	20
142	Spatial Variation of Soil CO2, CH4 and N2O Fluxes Across Topographical Positions in Tropical Forests of the Guiana Shield. *Ecosystems*, **2018**, 21, 1445-1458	3.9	20
141	Effects of arbuscular mycorrhizal fungi on grassland productivity are altered by future climate and below-ground resource availability. *Environmental and Experimental Botany*, **2012**, 81, 62-71	5.9	20
140	Model analysis of the effects of atmospheric drivers on storage water use in Scots pine. *Biogeosciences*, **2007**, 4, 657-671	4.6	20
139	A systemic overreaction to years versus decades of warming in a subarctic grassland ecosystem. *Nature Ecology and Evolution*, **2020**, 4, 101-108	12.3	20
138	Temperature dependence of greenhouse gas emissions from three hydromorphic soils at different groundwater levels. *Geobiology*, **2009**, 7, 465-76	4.3	19
137	Carbon budget of Pinus sylvestris saplings after four years of exposure to elevated atmospheric carbon dioxide concentration. *Tree Physiology*, **2005**, 25, 325-37	4.2	19
136	Towards a representation of priming on soil carbon decomposition in the global land biosphere model ORCHIDEE (version□1.9.5.2). *Geoscientific Model Development*, **2016**, 9, 841-855	6.3	19
135	The consecutive disparity index, D: a measure of temporal variability in ecological studies. *Ecosphere*, **2018**, 9, e02527	3.1	19
134	Favorable effect of mycorrhizae on biomass production efficiency exceeds their carbon cost in a fertilization experiment. *Ecology*, **2018**, 99, 2525-2534	4.6	19
133	Climatic Warming Increases Spatial Synchrony in Spring Vegetation Phenology Across the Northern Hemisphere. *Geophysical Research Letters*, **2019**, 46, 1641-1650	4.9	18
132	Strong resilience of soil respiration components to drought-induced die-off resulting in forest secondary succession. *Oecologia*, **2016**, 182, 27-41	2.9	18
131	An optimized fine root sampling methodology balancing accuracy and time investment. *Plant and Soil*, **2013**, 366, 351-361	4.2	18

130	Atmospheric deposition of elements and its relevance for nutrient budgets of tropical forests. *Biogeochemistry*, **2020**, 149, 175-193	3.8	17
129	Modeling leaf senescence of deciduous tree species in Europe. *Global Change Biology*, **2020**, 26, 4104-4118	8.4	17
128	Prolonged exposure does not increase soil microbial community compositional response to warming along geothermal gradients. *FEMS Microbiology Ecology*, **2018**, 94,	4.3	17
127	Enhanced Weathering and related element fluxes – a cropland mesocosm approach. *Biogeosciences*, **2020**, 17, 103-119	4.6	17
126	Nutrient availability alters the correlation between spring leaf-out and autumn leaf senescence dates. *Tree Physiology*, **2019**, 39, 1277-1284	4.2	16
125	Bayesian calibration of the Unified budburst model in six temperate tree species. *International Journal of Biometeorology*, **2012**, 56, 153-64	3.7	16
124	Bio-energy retains its mitigation potential under elevated CO2. *PLoS ONE*, **2010**, 5, e11648	3.7	16
123	Automatic high-frequency measurements of full soil greenhouse gas fluxes in a tropical forest. *Biogeosciences*, **2019**, 16, 785-796	4.6	15
122	Modeling the effects of varying data quality on trend detection in environmental monitoring. *Ecological Informatics*, **2007**, 2, 167-176	4.2	15
121	Sectoral approaches to improve regional carbon budgets. *Climatic Change*, **2008**, 88, 209-249	4.5	15
120	Trends in soil solution dissolved organic carbon (DOC) concentrations across European forests. *Biogeosciences*, **2016**, 13, 5567-5585	4.6	15
119	Impact of extreme precipitation and water table change on N₂O fluxes in a bio-energy poplar plantation		14
118	Spatially explicit analysis identifies significant potential for bioenergy with carbon capture and storage in China. *Nature Communications*, **2021**, 12, 3159	17.4	14
117	Empirical support for the biogeochemical niche hypothesis in forest trees. *Nature Ecology and Evolution*, **2021**, 5, 184-194	12.3	14
116	Coupled carbon and nitrogen losses in response to seven years of chronic warming in subarctic soils. *Soil Biology and Biochemistry*, **2019**, 134, 152-161	7.5	13
115	Effects of climate warming and declining species richness in grassland model ecosystems: acclimation of CO₂ fluxes. *Biogeosciences*, **2007**, 4, 27-36	4.6	13
114	Emerging negative impact of warming on summer carbon uptake in northern ecosystems. *Nature Communications*, **2018**, 9, 5391	17.4	13
113	Carbon–nitrogen interactions in European forests and semi-natural vegetation – Part 1: Fluxes and budgets of carbon, nitrogen and greenhouse gases from ecosystem monitoring and modelling. *Biogeosciences*, **2020**, 17, 1583-1620	4.6	12

112	Effects of forest management on biomass stocks in Romanian beech forests. *Forest Ecosystems*, **2019**, 6,	3.8	12
111	Shortened temperature-relevant period of spring leaf-out in temperate-zone trees. *Global Change Biology*, **2019**, 25, 4282-4290	11.4	12
110	Radiocarbon dating reveals different past managements of adjacent forest soils in the Campine region, Belgium. *Geoderma*, **2009**, 149, 137-142	6.7	12
109	Nutrient scarcity strengthens soil fauna control over leaf litter decomposition in tropical rainforests. *Proceedings of the Royal Society B: Biological Sciences*, **2019**, 286, 20191300	4.4	11
108	Weather and trade-offs between growth and reproduction regulate fruit production in European forests. *Agricultural and Forest Meteorology*, **2019**, 279, 107711	5.8	11
107	A call for international soil experiment networks for studying, predicting, and managing global change impacts. *Soil*, **2015**, 1, 575-582	5.8	11
106	Measurement of Soil Respiration. *Ecological Studies*, **2003**, 37-54	1.1	11
105	Nutrient availability and climate as the main determinants of the ratio of biomass to NPP in woody and non-woody forest compartments. *Trees - Structure and Function*, **2016**, 30, 775-783	2.6	10
104	Increasing gap in human height between rich and poor countries associated to their different intakes of N and P. *Scientific Reports*, **2017**, 7, 17671	4.9	10
103	Zea mays rhizosphere respiration, but not soil organic matter decomposition was stable across a temperature gradient. *Soil Biology and Biochemistry*, **2010**, 42, 2030-2033	7.5	10
102	Recent advances and future research in ecological stoichiometry. *Perspectives in Plant Ecology, Evolution and Systematics*, **2021**, 50, 125611	3	10
101	Potential CO2 removal from enhanced weathering by ecosystem responses to powdered rock. *Nature Geoscience*, **2021**, 14, 545-549	18.3	10
100	Regulation of nitrogen fixation from free-living organisms in soil and leaf litter of two tropical forests of the Guiana shield. *Plant and Soil*, **2020**, 450, 93-110	4.2	10
99	Combining a land surface model with life cycle assessment for identifying the optimal management of short rotation coppice in Belgium. *Biomass and Bioenergy*, **2019**, 121, 78-88	5.3	9
98	Fast attrition of springtail communities by experimental drought and richness-decomposition relationships across Europe. *Global Change Biology*, **2019**, 25, 2727-2738	11.4	9
97	Phosphorus alleviation of nitrogen-suppressed methane sink in global grasslands. *Ecology Letters*, **2020**, 23, 821-830	10	9
96	Effects of seabird nitrogen input on biomass and carbon accumulation after 50 years of primary succession on a young volcanic island, Surtsey. *Biogeosciences*, **2014**, 11, 6237-6250	4.6	9
95	Arbuscular Mycorrhizal Fungi May Mitigate the Influence of a Joint Rise of Temperature and AtmosphericCO2on Soil Respiration in Grasslands. *International Journal of Ecology*, **2009**, 2009, 1-10	1.9	9

94	Estimation of Gross Primary Productivity (GPP) Phenology of a Short-Rotation Plantation Using Remotely Sensed Indices Derived from Sentinel-2 Images. *Remote Sensing*, **2020**, 12, 2104	5	9
93	No impact of tropospheric ozone on the gross primary productivity of a Belgian pine forest. *Biogeosciences*, **2017**, 14, 1839-1855	4.6	8
92	Corrigendum to "Can current moisture responses predict soil CO₂ efflux under altered precipitation regimes? A synthesis of manipulation experiments". *Biogeosciences*, **2014**, 11, 3307-3308	4.6	8
91	Response to Comment on "Global Convergence in the Temperature Sensitivity of Respiration at Ecosystem Level". *Science*, **2011**, 331, 1265-1265	33.3	8
90	Quality control of CarboEurope flux data Part I: Footprint analyses to evaluate sites in forest ecosystems		8
89	Carbon Nitrogen interactions in European forests and semi-natural vegetation Part 2: Untangling climatic, edaphic, management and nitrogen deposition effects on carbon sequestration potentials. *Biogeosciences*, **2020**, 17, 1621-1654	4.6	8
88	The effect of global change on soil phosphatase activity. *Global Change Biology*, **2021**, 27, 5989-6003	11.4	8
87	The three major axes of terrestrial ecosystem function. *Nature*, **2021**, 598, 468-472	50.4	8
86	Impact of Soil Warming on the Plant Metabolome of Icelandic Grasslands. *Metabolites*, **2017**, 7,	5.6	7
85	The inhibitory effect of difluoromethane on CH4 oxidation in reconstructed peat columns and side-effects on CO2 and N2O emissions at two water levels. *Soil Biology and Biochemistry*, **2009**, 41, 1117-1123	7.5	7
84	The influence of soil chemistry on branched tetraether lipids in mid- and high latitude soils: Implications for brGDGT- based paleothermometry. *Geochimica Et Cosmochimica Acta*, **2021**, 310, 95-112	5.5	7
83	Different "metabolomic niches" of the highly diverse tree species of the French Guiana rainforests. *Scientific Reports*, **2020**, 10, 6937	4.9	6
82	Patterns of local, intercontinental and interseasonal variation of soil bacterial and eukaryotic microbial communities. *FEMS Microbiology Ecology*, **2020**, 96,	4.3	6
81	Geothermally warmed soils reveal persistent increases in the respiratory costs of soil microbes contributing to substantial C losses. *Biogeochemistry*, **2018**, 138, 245-260	3.8	6
80	Strong stoichiometric resilience after litter manipulation experiments; a case study in a Chinese grassland. *Biogeosciences*, **2015**, 12, 757-767	4.6	6
79	Does the stress tolerance of mixed grassland communities change in a future climate? A test with heavy metal stress (zinc pollution). *Environmental Pollution*, **2011**, 159, 3294-301	9.3	6
78	Radiocarbon based assessment of soil organic matter contribution to soil respiration in a pine stand of the Campine region, Belgium. *Plant and Soil*, **2011**, 344, 273-282	4.2	6
77	Altered response to nitrogen supply of mixed grassland communities in a future climate: a controlled environment microcosm study. *Plant and Soil*, **2011**, 345, 375-385	4.2	6

76	Atmospheric turbulence triggers pronounced diel pattern in karst carbonate geochemistry		6
75	Effects of seabird nitrogen input on biomass and carbon accumulation after 50 years of primary succession on a young volcanic island, Surtsey		6
74	The Integrated Carbon Observation System in Europe. *Bulletin of the American Meteorological Society*, **2021**, 1-54	6.1	6
73	Coniferous Forests (Scots and Maritime Pine): Carbon and Water Fluxes, Balances, Ecological and Ecophysiological Determinants. *Ecological Studies*, **2003**, 71-97	1.1	6
72	Warming homogenizes apparent temperature sensitivity of ecosystem respiration. *Science Advances*, **2021**, 7,	14.3	6
71	Bryophyte C:N:P stoichiometry, biogeochemical niches and elementome plasticity driven by environment and coexistence. *Ecology Letters*, **2021**, 24, 1375-1386	10	6
70	Improving Accuracy of Herbage Yield Predictions in Perennial Ryegrass with UAV-Based Structural and Spectral Data Fusion and Machine Learning. *Remote Sensing*, **2021**, 13, 3459	5	6
69	Coping with branch excision when measuring leaf net photosynthetic rates in a lowland tropical forest. *Biotropica*, **2020**, 52, 608-615	2.3	5
68	Soil thawing regulates the spring growth onset in tundra and alpine biomes. *Science of the Total Environment*, **2020**, 742, 140637	10.2	5
67	Contribution from Selected Organic Species to PM2.5 Aerosol during a Summer Field Campaign at K-Puszta, Hungary. *Atmosphere*, **2017**, 8, 221	2.7	5
66	Belowground carbon pools and dynamics in China's warm temperate and sub-tropical deciduous forests. *Biogeosciences*, **2010**, 7, 275-287	4.6	5
65	The European carbon balance. Part 4: integration of carbon and other trace-gas fluxes. *Global Change Biology*, **2009**, 16, 2399-2399	11.4	5
64	Unaltered soil microbial community composition, but decreased metabolic activity in a semiarid grassland after two years of passive experimental warming. *Ecology and Evolution*, **2020**, 10, 12327-12340	2.8	5
63	Country-Level Relationships of the Human Intake of N and P, Animal and Vegetable Food, and Alcoholic Beverages with Cancer and Life Expectancy. *International Journal of Environmental Research and Public Health*, **2020**, 17,	4.6	5
62	Global vegetation biomass production efficiency constrained by models and observations. *Global Change Biology*, **2020**, 26, 1474-1484	11.4	5
61	Uncovering the critical soil moisture thresholds of plant water stress for European ecosystems.. *Global Change Biology*, **2021**,	11.4	5
60	Disentangling Drought and Nutrient Effects on Soil Carbon Dioxide and Methane Fluxes in a Tropical Forest. *Frontiers in Environmental Science*, **2019**, 7,	4.8	4
59	Different determinants of radiation use efficiency in cold and temperate forests. *Global Ecology and Biogeography*, **2019**, 28, 1649-1667	6.1	4

58	A call for international soil experiment networks for studying, predicting, and managing global change impacts **2015**,		4
57	Recovery dynamics and invasibility of herbaceous plant communities after exposure to experimental climate extremes. *Basic and Applied Ecology*, **2015**, 16, 583-591	3.2	4
56	Decelerating Autumn CO2 Release With Warming Induced by Attenuated Temperature Dependence of Respiration in Northern Ecosystems. *Geophysical Research Letters*, **2018**, 45, 5562-5571	4.9	4
55	ORCHIDEE-SRC v1.0: an extension of the land surface model ORCHIDEE for simulating short rotation coppice poplar plantations. *Geoscientific Model Development*, **2015**, 8, 1461-1471	6.3	4
54	Western Palaearctic breeding geese can alter carbon cycling in their winter habitat. *Ecosphere*, **2014**, 5, art139	3.1	4
53	Carbon allocation to biomass production of leaves, fruits and woody organs at seasonal and annual scale in a deciduous- and evergreen temperate forest		4
52	Could Global Intensification of Nitrogen Fertilisation Increase Immunogenic Proteins and Favour the Spread of Coeliac Pathology?. *Foods*, **2020**, 9,	4.9	4
51	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
50	Long-term linear trends mask phenological shifts. *International Journal of Biometeorology*, **2016**, 60, 1611-1613	3.7	4
49	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
48	The Lateral Carbon Pump, and the European Carbon Balance. *Ecological Studies*, **2008**, 341-360	1.1	4
47	Reply to: Nutrient scarcity cannot cause mast seeding. *Nature Plants*, **2020**, 6, 763-765	11.5	3
46	Icelandic grasslands as long-term C sinks under elevated organic N inputs. *Biogeochemistry*, **2017**, 134, 279-299	3.8	3
45	Impact of Lockdowns and Winter Temperatures on Natural Gas Consumption in Europe. *Earth's Future*, **2022**, 10,	7.9	3
44	Global maps and factors driving forest foliar elemental composition: the importance of evolutionary history. *New Phytologist*, **2022**, 233, 169-181	9.8	3
43	Fine Root and Rhizosphere Respiration of Young Scots Pine Seedlings under Elevated and Ambient CO2. *Forestry Sciences*, **1997**, 187-192		3
42	Rapid root assimilation of added phosphorus in a lowland tropical rainforest of French Guiana. *Soil Biology and Biochemistry*, **2020**, 140, 107646	7.5	3
41	Diverging models introduce large uncertainty in future climate warming impact on spring phenology of temperate deciduous trees. *Science of the Total Environment*, **2021**, 757, 143903	10.2	3

40	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
39	Ecometabolomics of plant–herbivore and plant–fungi interactions: a synthesis study. *Ecosphere*, **2021**, 12, e03736	3.1	3
38	Reply to 'Uncertain effects of nutrient availability on global forest carbon balance' and 'Data quality and the role of nutrients in forest carbon-use efficiency'. *Nature Climate Change*, **2015**, 5, 960-961	21.4	2
37	Weather, pollution and biotic factors drive net forest - atmosphere exchange of CO2 at different temporal scales in a temperate-zone mixed forest. *Agricultural and Forest Meteorology*, **2020**, 291, 108059	5.8	2
36	Forest annual carbon cost: reply. *Ecology*, **2011**, 92, 1998-2002	4.6	2
35	Do successive climate extremes weaken the resistance of plant communities? An experimental study using plant assemblages		2
34	Strong stoichiometric resilience after litter manipulation experiments; a case study in a Chinese grassland		2
33	Can current moisture responses predict soil CO₂ efflux under altered precipitation regimes? A synthesis of manipulation experiments		2
32	The role of climate, foliar stoichiometry and plant diversity on ecosystem carbon balance. *Global Change Biology*, **2020**, 26, 7067-7078	11.4	2
31	P-NMR Metabolomics Revealed Species-Specific Use of Phosphorous in Trees of a French Guiana Rainforest. *Molecules*, **2020**, 25,	4.8	2
30	Simultaneous tree stem and soil greenhouse gas (CO , CH , N O) flux measurements: a novel design for continuous monitoring towards improving flux estimates and temporal resolution. *New Phytologist*, **2021**, 230, 2487-2500	9.8	2
29	Influences of international agricultural trade on the global phosphorus cycle and its associated issues. *Global Environmental Change*, **2021**, 69, 102282	10.1	2
28	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
27	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
26	Response to Comments on "Recent global decline of CO fertilization effects on vegetation photosynthesis". *Science*, **2021**, 373, eabg7484	33.3	2
25	Soil nutrient variation along a shallow catena in Paracou, French Guiana. *Soil Research*, **2021**, 59, 130	1.8	2
24	Can light-saturated photosynthesis in lowland tropical forests be estimated by one light level?. *Biotropica*, **2020**, 52, 1183-1193	2.3	1
23	ORCHIDEE-SOM: Modeling soil organic carbon (SOC) and dissolved organic carbon (DOC) dynamics along vertical soil profiles in Europe **2017**,		1

22	Semi-empirical modelling of the response of soil respiration to environmental factors in laboratory and field conditions207-220		1
21	Contrasting phenology responses to climate warming across the northern extra-tropics. *Fundamental Research*, **2022**,		1
20	Decay of similarity across tropical forest communities: integrating spatial distance with soil nutrients. *Ecology*, **2021**, e03599	4.6	1
19	Is the climate change mitigation effect of enhanced silicate weathering governed by biological processes?. *Global Change Biology*, **2021**,	11.4	1
18	Negative priming of soil organic matter following long-term in situ warming of sub-arctic soils. *Geoderma*, **2022**, 410, 115652	6.7	1
17	Chemical characterisation of atmospheric aerosols during a 2007 summer field campaign at Brasschaat, Belgium: sources and source processes, time series, diel variations, and temperature dependencies		1
16	Atmospheric drivers of storage water use in Scots pine		1
15	Decadal water balance of a temperate Scots pine forest (<i>Pinus sylvestris</i> L.) based on measurements and modelling		1
14	Soil respiration at mean annual temperature predicts annual total across vegetation types and biomes		1
13	Nutrients control reproductive traits of hygrophytic bryophytes. *Freshwater Biology*, **2021**, 66, 1436-1446	3.1	1
12	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
11	Long-term warming reduced microbial biomass but increased recent plant-derived C in microbes of a subarctic grassland. *Soil Biology and Biochemistry*, **2022**, 167, 108590	7.5	1
10	Fine-Root Turnover, Litterfall, and Soil Microbial Community of Three Mixed Coniferous-Deciduous Forests Dominated by Korean Pine () Along a Latitudinal Gradient. *Frontiers in Plant Science*, **2019**, 10, 1298	6.2	0
9	Replies to the comments by F. Hupet, M. Vanclooster on Water flux estimates from a Belgian Scots pine stand: a comparison of different approaches *Journal of Hydrology*, **2004**, 291, 154-157	6	0
8	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
7	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
6	Role of subterranean microbiota in the carbon cycle and greenhouse gas dynamics.. *Science of the Total Environment*, **2022**, 154921	10.2	0
5	Phosphorus stress strongly reduced plant physiological activity, but only temporarily, in a mesocosm experiment with <i>Zea mays</i> colonized by arbuscular mycorrhizal fungi. *Biogeosciences*, **2022**, 19, 2353-2364	4.6	0

4	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
3	Appendix: Towards a standardized protocol for the measurement of soil CO2 efflux272-280		
2	Warming affects soil metabolome: The case study of Icelandic grasslands. *European Journal of Soil Biology*, **2021**, 105, 103317	2.9	
1	Contrasting nitrogen and phosphorus fertilization effects on soil terpene exchanges in a tropical forest. *Science of the Total Environment*, **2022**, 802, 149769	10.2	