Jean-Paul Laclau

List of Publications by Citations

127 papers	5,204 citations	43 h-index	68 g-index
138 ext. papers	6,352 ext. citations	4.1 avg, IF	5.33 L-index

#	Paper	IF	Citations
127	TRY plant trait database - enhanced coverage and open access. *Global Change Biology*, **2020**, 26, 119-188	11.4	399
126	Integrating genetic and silvicultural strategies to minimize abiotic and biotic constraints in Brazilian eucalypt plantations. *Forest Ecology and Management*, **2013**, 301, 6-27	3.9	223
125	Biogeochemical cycles of nutrients in tropical Eucalyptus plantations. *Forest Ecology and Management*, **2010**, 259, 1771-1785	3.9	182
124	Acquisition of phosphorus and other poorly mobile nutrients by roots. Where do plant nutrition models fail?. *Plant and Soil*, **2011**, 348, 29-61	4.2	162
123	Tamm Review: Influence of forest management activities on soil organic carbon stocks: A knowledge synthesis. *Forest Ecology and Management*, **2020**, 466, 118127	3.9	140
122	Assessing the effects of early silvicultural management on long-term site productivity of fast-growing eucalypt plantations: the Brazilian experience. *Southern Forests*, **2008**, 70, 105-118	0.6	114
121	Silvicultural effects on the productivity and wood quality of eucalypt plantations. *Forest Ecology and Management*, **2004**, 193, 45-61	3.9	111
120	Mixed-species plantations of Acacia mangium and Eucalyptus grandis in Brazil. *Forest Ecology and Management*, **2008**, 255, 3905-3917	3.9	107
119	Changes with age in the spatial distribution of roots of Eucalyptus clone in Congo. *Forest Ecology and Management*, **2002**, 171, 43-57	3.9	100
118	Mixed-species plantations of Acacia mangium and Eucalyptus grandis in Brazil: 2: Nitrogen accumulation in the stands and biological N2 fixation. *Forest Ecology and Management*, **2008**, 255, 3918-3930	3.9	97
117	Dynamics of biomass and nutrient accumulation in a clonal plantation of Eucalyptus in Congo. *Forest Ecology and Management*, **2000**, 128, 181-196	3.9	96
116	Eucalyptus and Acacia tree growth over entire rotation in single- and mixed-species plantations across five sites in Brazil and Congo. *Forest Ecology and Management*, **2013**, 301, 89-101	3.9	91
115	Influence of nitrogen and potassium fertilization on leaf lifespan and allocation of above-ground growth in Eucalyptus plantations. *Tree Physiology*, **2009**, 29, 111-24	4.2	91
114	BAAD: a Biomass And Allometry Database for woody plants. *Ecology*, **2015**, 96, 1445-1445	4.6	89
113	Tree and stand light use efficiencies over a full rotation of single- and mixed-species Eucalyptus grandis and Acacia mangium plantations. *Forest Ecology and Management*, **2013**, 288, 31-42	3.9	89
112	Growth of the whole root system for a plant crop of sugarcane under rainfed and irrigated environments in Brazil. *Field Crops Research*, **2009**, 114, 351-360	5.5	88
111	Photosynthetic and anatomical responses of Eucalyptus grandis leaves to potassium and sodium supply in a field experiment. *Plant, Cell and Environment*, **2014**, 37, 70-81	8.4	85

110	Importance of deep water uptake in tropical eucalypt forest. *Functional Ecology*, **2017**, 31, 509-519	5.6	83
109	Partitioning of net primary production in Eucalyptus and Acacia stands and in mixed-species plantations: Two case-studies in contrasting tropical environments. *Forest Ecology and Management* , **2013**, 301, 102-111	3.9	80
108	Fine root production and turnover in Brazilian Eucalyptus plantations under contrasting nitrogen fertilization regimes. *Forest Ecology and Management*, **2008**, 256, 396-404	3.9	79
107	Nutrient cycling in a clonal stand of Eucalyptus and an adjacent savanna ecosystem in Congo: 3. Inputâ□utput budgets and consequences for the sustainability of the plantations. *Forest Ecology and Management*, **2005**, 210, 375-391	3.9	79
106	MODIS NDVI time-series allow the monitoring of Eucalyptus plantation biomass. *Remote Sensing of Environment*, **2011**, 115, 2613-2625	13.2	77
105	Almost symmetrical vertical growth rates above and below ground in one of the world's most productive forests. *Ecosphere*, **2011**, 2, art27	3.1	76
104	Introducing Acacia mangium trees in Eucalyptus grandis plantations: consequences for soil organic matter stocks and nitrogen mineralization. *Plant and Soil*, **2012**, 352, 99-111	4.2	74
103	Nutrient dynamics throughout the rotation of Eucalyptus clonal stands in Congo. *Annals of Botany*, **2003**, 91, 879-92	4.1	74
102	Dynamics of soil exploration by fine roots down to a depth of 10 m throughout the entire rotation in Eucalyptus grandis plantations. *Frontiers in Plant Science*, **2013**, 4, 243	6.2	73
101	Spatial distribution of Eucalyptus roots in a deep sandy soil in the Congo: relationships with the ability of the stand to take up water and nutrients. *Tree Physiology*, **2001**, 21, 129-36	4.2	72
100	Effects of potassium and sodium supply on drought-adaptive mechanisms in Eucalyptus grandis plantations. *New Phytologist*, **2014**, 203, 401-413	9.8	70
99	Organic residue mass at planting is an excellent predictor of tree growth in Eucalyptus plantations established on a sandy tropical soil. *Forest Ecology and Management*, **2010**, 260, 2148-2159	3.9	67
98	Within-stand and seasonal variations of specific leaf area in a clonal Eucalyptus plantation in the Republic of Congo. *Forest Ecology and Management*, **2010**, 259, 1796-1807	3.9	66
97	Functional specialization of Eucalyptus fine roots: contrasting potential uptake rates for nitrogen, potassium and calcium tracers at varying soil depths. *Functional Ecology*, **2011**, 25, 996-1006	5.6	64
96	Production and carbon allocation in monocultures and mixed-species plantations of Eucalyptus grandis and Acacia mangium in Brazil. *Tree Physiology*, **2012**, 32, 680-95	4.2	61
95	The effects of slash management on nutrient cycling and tree growth in Eucalyptus plantations in the Congo. *Forest Ecology and Management*, **2002**, 171, 209-221	3.9	60
94	Stem production, light absorption and light use efficiency between dominant and non-dominant trees of Eucalyptus grandis across a productivity gradient in Brazil. *Forest Ecology and Management*, **2013**, 288, 14-20	3.9	55
93	Influence of land use (savanna, pasture, Eucalyptus plantations) on soil carbon and nitrogen stocks in Brazil. *European Journal of Soil Science*, **2008**, 59, 863-877	3.4	55

92	Nutrient cycling in a clonal stand of Eucalyptus and an adjacent savanna ecosystem in Congo. *Forest Ecology and Management*, **2003**, 176, 105-119	3.9	55
91	Potassium fertilization increases water-use efficiency for stem biomass production without affecting intrinsic water-use efficiency in Eucalyptus grandis plantations. *Forest Ecology and Management*, **2016**, 364, 77-89	3.9	50
90	Decomposition of Eucalyptus grandis and Acacia mangium leaves and fine roots in tropical conditions did not meet the Home Field Advantage hypothesis. *Forest Ecology and Management*, **2016**, 359, 33-43	3.9	49
89	Evidence of short-term belowground transfer of nitrogen from Acacia mangium to Eucalyptus grandis trees in a tropical planted forest. *Soil Biology and Biochemistry*, **2015**, 91, 99-108	7.5	48
88	Mixing Eucalyptus and Acacia trees leads to fine root over-yielding and vertical segregation between species. *Oecologia*, **2013**, 172, 903-13	2.9	47
87	Do changes in carbon allocation account for the growth response to potassium and sodium applications in tropical Eucalyptus plantations?. *Tree Physiology*, **2012**, 32, 667-79	4.2	46
86	A positive growth response to NaCl applications in Eucalyptus plantations established on K-deficient soils. *Forest Ecology and Management*, **2010**, 259, 1786-1795	3.9	45
85	Mineralogical and physico-chemical properties of Ferralic Arenosols derived from unconsolidated Plio-Pleistocenic deposits in the coastal plains of Congo. *Geoderma*, **2011**, 162, 159-170	6.7	44
84	The function of the superficial root mat in the biogeochemical cycles of nutrients in congolese eucalyptus plantations. *Annals of Botany*, **2004**, 93, 249-61	4.1	42
83	Influence of potassium and sodium nutrition on leaf area components in Eucalyptus grandis trees. *Plant and Soil*, **2013**, 371, 19-35	4.2	40
82	Unexpected phenology and lifespan of shallow and deep fine roots of walnut trees grown in a silvoarable Mediterranean agroforestry system. *Plant and Soil*, **2016**, 401, 409-426	4.2	39
81	In situ 13CO2 pulse labelling of field-grown eucalypt trees revealed the effects of potassium nutrition and throughfall exclusion on phloem transport of photosynthetic carbon. *Tree Physiology*, **2016**, 36, 6-21	4.2	37
80	Measured and modeled interactive effects of potassium deficiency and water deficit on gross primary productivity and light-use efficiency in Eucalyptus grandis plantations. *Global Change Biology*, **2015**, 21, 2022-39	11.4	37
79	Soil CO2 effluxes, soil carbon balance, and early tree growth following savannah afforestation in Congo: Comparison of two site preparation treatments. *Forest Ecology and Management*, **2008**, 255, 1928-1936	3.9	36
78	A fast exploration of very deep soil layers by Eucalyptus seedlings and clones in Brazil. *Forest Ecology and Management*, **2016**, 366, 143-152	3.9	34
77	Nutrient cycling in a clonal stand of Eucalyptus and an adjacent savanna ecosystem in Congo: 2. Chemical composition of soil solutions. *Forest Ecology and Management*, **2003**, 180, 527-544	3.9	34
76	Consequences of mixing Acacia mangium and Eucalyptus grandis trees on soil exploration by fine-roots down to a depth of 17 m. *Plant and Soil*, **2018**, 424, 203-220	4.2	33
75	Stand-level patterns of carbon fluxes and partitioning in a Eucalyptus grandis plantation across a gradient of productivity, in Sao Paulo State, Brazil. *Tree Physiology*, **2012**, 32, 696-706	4.2	32

74	Age-related changes in litter inputs explain annual trends in soil CO2 effluxes over a full Eucalyptus rotation after afforestation of a tropical savannah. *Biogeochemistry*, **2012**, 111, 515-533	3.8	31
73	The manipulation of organic residues affects tree growth and heterotrophic CO2 efflux in a tropical Eucalyptus plantation. *Forest Ecology and Management*, **2013**, 301, 79-88	3.9	30
72	Biomass and nutrient dynamics in a littoral savanna subjected to annual fires in Congo. *Acta Oecologica*, **2002**, 23, 41-50	1.7	30
71	Fine root isotropy in Eucalyptus grandis plantations. Towards the prediction of root length densities from root counts on trench walls. *Plant and Soil*, **2010**, 334, 261-275	4.2	29
70	Dynamics of fine root distribution after establishment of monospecific and mixed-species plantations of Eucalyptus grandis and Acacia mangium. *Plant and Soil*, **2009**, 325, 305-318	4.2	28
69	Efeito da idade e posiˆ ˜o de amostragem na densidade e caracterˆ Esticas anatˆ Enicas da madeira de Eucalyptus grandis. *Revista Arvore*, **2012**, 36, 1183-1190	1	28
68	Simulating the effects of different potassium and water supply regimes on soil water content and water table depth over a rotation of a tropical Eucalyptus grandis plantation. *Forest Ecology and Management*, **2018**, 418, 4-14	3.9	27
67	Effects of litter manipulation in a tropical Eucalyptus plantation on leaching of mineral nutrients, dissolved organic nitrogen and dissolved organic carbon. *Geoderma*, **2014**, 232-234, 426-436	6.7	26
66	Tamm Review: Deep fine roots in forest ecosystems: Why dig deeper?. *Forest Ecology and Management*, **2020**, 466, 118135	3.9	25
65	Nitrogen fixation rate of Acacia mangium Wild at mid rotation in Brazil is higher in mixed plantations with Eucalyptus grandis Hill ex Maiden than in monocultures. *Annals of Forest Science*, **2018**, 75, 1	3.1	25
64	Nitrogen cycling in monospecific and mixed-species plantations of Acacia mangium and Eucalyptus at 4 sites in Brazil. *Forest Ecology and Management*, **2019**, 436, 56-67	3.9	24
63	Why one tree grows faster than another: Patterns of light use and light use efficiency at the scale of individual trees and stands. *Forest Ecology and Management*, **2013**, 288, 1-4	3.9	24
62	Dynamics of Nutrient Translocation in Stemwood across an Age Series of a Eucalyptus Hybrid. *Annals of Botany*, **2001**, 88, 1079-1092	4.1	24
61	Hybrid and clonal variability of nutrient content and nutrient use efficiency in Eucalyptus stands in Congo. *Forest Ecology and Management*, **2005**, 210, 193-204	3.9	23
60	Tree roots can penetrate deeply in African semi-deciduous rain forests: evidence from two common soil types. *Journal of Tropical Ecology*, **2015**, 31, 13-23	1.3	22
59	Nutrient leaching and deep drainage under Eucalyptus plantations managed in short rotations after afforestation of an African savanna: Two 7-year time series. *Forest Ecology and Management*, **2013**, 307, 242-254	3.9	22
58	Crescimento em diˆ Emetro do tronco das ˆ Ervores de Eucalyptus grandis W. Hill. ex. Maiden e relaˆ ˜o com as variˆ Eveis climˆ Eticas e fertilizaˆ ˜o mineral. *Revista Arvore*, **2010**, 34, 979-990	1	21
57	Rainfall reduction impacts rhizosphere biogeochemistry in eucalypts grown in a deep Ferralsol in Brazil. *Plant and Soil*, **2017**, 414, 339-354	4.2	20

56	The role of harvest residues to sustain tree growth and soil nitrogen stocks in a tropical Eucalyptus plantation. *Plant and Soil*, **2014**, 376, 245-260	4.2	20
55	Modifying the GâDAY process-based model to simulate the spatial variability of Eucalyptus plantation growth on deep tropical soils. *Forest Ecology and Management*, **2013**, 301, 112-128	3.9	20
54	Crescimento, nutri□ □o e fixa□ □o biol□ gica de nitrog□ nio em plantios mistos de eucalipto e leguminosas arb□ reas. *Pesquisa Agropecuaria Brasileira*, **2007**, 42, 759-768	1.8	19
53	Source-driven remobilizations of nutrients within stem wood in Eucalyptus grandis plantations. *Trees - Structure and Function*, **2013**, 27, 827-839	2.6	18
52	Measuring and modelling energy partitioning in canopies of varying complexity using MAESPA model. *Agricultural and Forest Meteorology*, **2018**, 253-254, 203-217	5.8	17
51	Fertilization increases the functional specialization of fine roots in deep soil layers for young Eucalyptus grandis trees. *Forest Ecology and Management*, **2019**, 431, 6-16	3.9	16
50	Contrasting phenology of Eucalyptus grandis fine roots in upper and very deep soil layers in Brazil. *Plant and Soil*, **2017**, 421, 301-318	4.2	15
49	A systems biology view of wood formation in Eucalyptus grandis trees submitted to different potassium and water regimes. *New Phytologist*, **2019**, 223, 766-782	9.8	15
48	Distance from the trunk and depth of uptake of labelled nitrate for dominant and suppressed trees in Brazilian Eucalyptus plantations: Consequences for fertilization practices. *Forest Ecology and Management*, **2019**, 447, 95-104	3.9	14
47	Selecting for water use efficiency, wood chemical traits and biomass with genomic selection in a Eucalyptus breeding program. *Forest Ecology and Management*, **2020**, 465, 118092	3.9	14
46	Light absorption, light use efficiency and productivity of 16 contrasted genotypes of several Eucalyptus species along a 6-year rotation in Brazil. *Forest Ecology and Management*, **2019**, 449, 117443	3.9	14
45	Nutrient management of immature rubber plantations. A review. *Agronomy for Sustainable Development*, **2019**, 39, 1	6.8	13
44	Perspectives for the management of eucalypt plantations under biotic and abiotic stresses. *Forest Ecology and Management*, **2013**, 301, 1-5	3.9	13
43	Biomass sustainability, availability and productivity. *Revue De Metallurgie*, **2009**, 106, 410-418		13
42	A generic model to describe the dynamics of nutrient concentrations within stemwood across an age series of a eucalyptus hybrid. *Annals of Botany*, **2002**, 90, 65-76	4.1	13
41	Role of trees and herbaceous vegetation beneath trees in maintaining arbuscular mycorrhizal communities in temperate alley cropping systems. *Plant and Soil*, **2020**, 453, 153-171	4.2	12
40	Consequences of clear-cutting and drought on fine root dynamics down to 17 m in coppice-managed eucalypt plantations. *Forest Ecology and Management*, **2019**, 445, 48-59	3.9	11
39	Chemical fertility of forest ecosystems. Part 1: Common soil chemical analyses were poor predictors of stand productivity across a wide range of acidic forest soils. *Forest Ecology and Management*, **2020**, 461, 117843	3.9	11

38	RELATIONSHIP BETWEEN CLIMATE VARIABLES, TRUNK GROWTH RATE AND WOOD DENSITY OF Eucalyptus grandis W. Mill ex Maiden TREES. *Revista Arvore*, **2016**, 40, 337-346	1	11
37	Potassium fertilization increases hydraulic redistribution and water use efficiency for stemwood production in Eucalyptus grandis plantations. *Environmental and Experimental Botany*, **2020**, 176, 104085	5.9	10
36	Chemical fertility of forest ecosystems. Part 2: Towards redefining the concept by untangling the role of the different components of biogeochemical cycling. *Forest Ecology and Management*, **2020**, 461, 117844	3.9	10
35	Modelling carbon and water balance of Eucalyptus plantations at regional scale: Effect of climate, soil and genotypes. *Forest Ecology and Management*, **2019**, 449, 117460	3.9	10
34	Determination of potential denitrification in a range of tropical topsoils using near infrared reflectance spectroscopy (NIRS). *Applied Soil Ecology*, **2010**, 46, 81-89	5	10
33	How deep can ectomycorrhizas go? A case study on Pisolithus down to 4 meters in a Brazilian eucalypt plantation. *Mycorrhiza*, **2019**, 29, 637-648	3.9	10
32	Microbial Enzymatic Activities and Community-Level Physiological Profiles (CLPP) in Subsoil Layers Are Altered by Harvest Residue Management Practices in a Tropical Eucalyptus grandis Plantation. *Microbial Ecology*, **2019**, 78, 528-533	4.4	10
31	Distinct leaf transcriptomic response of water deficient Eucalyptus grandis submitted to potassium and sodium fertilization. *PLoS ONE*, **2019**, 14, e0218528	3.7	9
30	Sensitivity and uncertainty analysis of the carbon and water fluxes at the tree scale in Eucalyptus plantations using a metamodeling approach. *Canadian Journal of Forest Research*, **2016**, 46, 297-309	1.9	9
29	Nitrogen dynamics within and between decomposing leaves, bark and branches in Eucalyptus planted forests. *Soil Biology and Biochemistry*, **2016**, 101, 55-64	7.5	8
28	EFEITO DA DISPONIBILIDADE HˆDRICA E DA APLICAˆ D DE POTˆSSIO E SˆDIO NAS CARACTERˆSTICAS ANATˆMICAS DO LENHO JUVENIL DE Eucalyptus grandis. *Revista Arvore*, **2015**, 39, 405-416	1	8
27	A new probabilistic canopy dynamics model (SLCD) that is suitable for evergreen and deciduous forest ecosystems. *Ecological Modelling*, **2014**, 290, 121-133	3	8
26	Introducing N-fixing trees (Acacia mangium) in eucalypt plantations rapidly modifies the pools of organic P and low molecular weight organic acids in tropical soils. *Science of the Total Environment*, **2020**, 742, 140535	10.2	7
25	Plantations d'eucalyptus et sidˆ rurgie en Amazonie : apports du modˆ le 3-PG. *Bois Et Forets Des Tropiques*, **2011**, 309, 37		7
24	Conventional analysis methods underestimate the plant-available pools of calcium, magnesium and potassium in forest soils. *Scientific Reports*, **2020**, 10, 15703	4.9	7
23	Deep rooting of rainfed and irrigated orange trees in Brazil. *Trees - Structure and Function*, **2017**, 31, 285-297	2.7	5
22	Alteraˆ Es na qualidade da madeira de Eucalyptus grandis causadas pela adubaˆ D mineral. *Cerne*, **2014**, 20, 251-258	0.7	5
21	Nutrient deficiency enhances the rate of short-term belowground transfer of nitrogen from Acacia mangium to Eucalyptus trees in mixed-species plantations. *Forest Ecology and Management*, **2021**, 491, 119192	3.9	5

20	Alteraˆ ¨es nas caracterˆ sticas quˆ micas da madeira com a substituiˆ ¨o do K por Na em plantaˆ ¨es de eucalipto. *Revista Arvore*, **2014**, 38, 569-578	1	4
19	Efeito da disponibilidade hˆ drica e da aplicaˆ ¨o de potˆ ssio e sˆ dio no crescimento em diˆ metro do tronco de ˆ rvores de Eucalyptus grandis. *Scientia Forestalis/Forest Sciences*, **2017**, 45,	1.1	4
18	Dynamics of biomass and nutrient accumulation in rubber (Hevea brasiliensis) plantations established on two soil types: Implications for nutrient management over the immature phase. *Industrial Crops and Products*, **2021**, 159, 113084	5.9	4
17	Fertilitˆ 'chimique des sols forestiers : concepts de base. *Revue Forestiere Francaise*, **2014**, Fr.], ISSN 0035	1	3
16	Potassium limitation of wood productivity: A review of elementary processes and ways forward to modelling illustrated by Eucalyptus plantations. *Forest Ecology and Management*, **2021**, 494, 119275	3.9	3
15	Chemical fertility of forest soils: basic concepts. *Revue Forestiere Francaise*, **2014**, Fr.], ISSN 0035	1	2
14	EFEITO DA APLICAˆ ¨O DO POTˆ SSIO, DO Sˆ DIO E DA DISPONIBILIDADE Hˆ DRICA NA DENSIDADE APARENTE A 12% DE UMIDADE DO LENHO JUVENIL DE ˆ RVORES DE Eucalyptus grandis. *Ciencia Florestal*, **2017**, 27, 1017	1.1	2
13	Influences of edaphoclimatic conditions on deep rooting and soil water availability in Brazilian Eucalyptus plantations. *Forest Ecology and Management*, **2020**, 455, 117673	3.9	2
12	Nutrient supply modulates species interactions belowground: dynamics and traits of fine roots in mixed plantations of Eucalyptus and Acacia mangium. *Plant and Soil*, **2021**, 460, 559-577	4.2	2
11	Farmers' preferences for water-saving strategies in Brazilian eucalypt plantations. *Forest Policy and Economics*, **2021**, 128, 102459	3.6	2
10	Roots take up labeled nitrogen from a depth of 9´m in a wooded savanna in Brazil. *Soil Biology and Biochemistry*, **2021**, 160, 108282	7.5	2
9	IN-Palm: An agri-environmental indicator to assess nitrogen losses in oil palm plantations. *Agronomy Journal*, **2020**, 112, 786-800	2.2	1
8	Adaptation and Mitigation in Tropical Tree Plantations **2016**, 197-208		1
7	Modeling the environmental and seasonal influence on canopy dynamic and litterfall of even-aged forest ecosystems by a model coupling growth & yield and process-based approaches **2012**,		1
6	Soil Quality Attributes in Forest Stands: Influence of Techniques Ecological Restoration. *Communications in Soil Science and Plant Analysis*, **2019**, 50, 209-227	1.5	1
5	Organic phosphorus immobilization in microbial biomass controls how N2-fixing trees affect phosphorus bioavailability in two tropical soils. *Environmental Advances*, **2022**, 8, 100247	3.5	1
4	Logging residues promote rapid restoration of soil health after clear-cutting of rubber plantations at two sites with contrasting soils in Africa. *Science of the Total Environment*, **2021**, 816, 151526	10.2	0
3	Increased hydraulic constraints in Eucalyptus plantations fertilized with potassium. *Plant, Cell and Environment*, **2021**, 44, 2938-2950	8.4	0

2	Isotopic approach to trace water and nutrient dynamics in forest soils. *Revue Forestiere Francaise*, **2014**, Fr.], ISSN 0035	1
1	Differential gene expression in Eucalyptus clones in response to nutrient deficiency. *Tree Genetics and Genomes*, **2022**, 18, 1	2.1