

Niels P R Anten

List of Publications by Year in descending order

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Version: 2024-02-01

102
papers

5,266
citations

101543

36
h-index

95266

68
g-index

105
all docs

105
docs citations

105
times ranked

8246
citing authors

#	ARTICLE	IF	CITATIONS
1	TRY plant trait database – enhanced coverage and open access. <i>Global Change Biology</i> , 2020, 26, 119-188.	9.5	1,038
2	No growth stimulation of tropical trees by 150 years of CO ₂ fertilization but water-use efficiency increased. <i>Nature Geoscience</i> , 2015, 8, 24-28.	12.9	348
3	Plant resistance to mechanical stress: evidence of an avoidance – tolerance trade-off. <i>New Phytologist</i> , 2011, 191, 1141-1149.	7.3	172
4	Optimal Photosynthetic Characteristics of Individual Plants in Vegetation Stands and Implications for Species Coexistence. <i>Annals of Botany</i> , 2004, 95, 495-506.	2.9	145
5	A plant economics spectrum in Mediterranean forests along environmental gradients: is there coordination among leaf, stem and root traits?. <i>Journal of Vegetation Science</i> , 2016, 27, 187-199.	2.2	145
6	The contribution of phenotypic plasticity to complementary light capture in plant mixtures. <i>New Phytologist</i> , 2015, 207, 1213-1222.	7.3	143
7	Interspecific differences in above-ground growth patterns result in spatial and temporal partitioning of light among species in a tall grass meadow. <i>Journal of Ecology</i> , 1999, 87, 583-597.	4.0	141
8	Detect thy neighbor: Identity recognition at the root level in plants. <i>Plant Science</i> , 2012, 195, 157-167.	3.6	134
9	Neighbor detection at the leaf tip adaptively regulates upward leaf movement through spatial auxin dynamics. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 7450-7455.	7.1	118
10	Differences in the compensatory growth of two co-occurring grass species in relation to water availability. <i>Oecologia</i> , 2005, 146, 190-199.	2.0	100
11	Effects of Mechanical Stress and Plant Density on Mechanical Characteristics, Growth, and Lifetime Reproduction of Tobacco Plants. <i>American Naturalist</i> , 2005, 166, 650-660.	2.1	100
12	Effects of Light and Nutrient Availability on Leaf Mechanical Properties of <i>Plantago major</i> : A Conceptual Approach. <i>Annals of Botany</i> , 2008, 101, 727-736.	2.9	100
13	The Role of Wood Mass Density and Mechanical Constraints in the Economy of Tree Architecture. <i>American Naturalist</i> , 2010, 175, 250-260.	2.1	97
14	Wind and mechanical stimuli differentially affect leaf traits in <i>Plantago major</i> . <i>New Phytologist</i> , 2010, 188, 554-564.	7.3	96
15	Global dependence of field-observed leaf area index in woody species on climate: a systematic review. <i>Global Ecology and Biogeography</i> , 2014, 23, 274-285.	5.8	89
16	DEFOLIATION AND GROWTH IN AN UNDERSTORY PALM: QUANTIFYING THE CONTRIBUTIONS OF COMPENSATORY RESPONSES. <i>Ecology</i> , 2003, 84, 2905-2918.	3.2	86
17	Salinity and light interactively affect neotropical mangrove seedlings at the leaf and whole plant levels. <i>Oecologia</i> , 2006, 150, 545-556.	2.0	84
18	Trade-off between light interception efficiency and light use efficiency: implications for species coexistence in one-sided light competition. <i>Journal of Ecology</i> , 2014, 102, 167-175.	4.0	82

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19	Physiological mechanisms in plant growth models: do we need a supra-cellular systems biology approach?. <i>Plant, Cell and Environment</i> , 2013, 36, 1673-1690.	5.7	79
20	Tragedies and Crops: Understanding Natural Selection To Improve Cropping Systems. <i>Trends in Ecology and Evolution</i> , 2016, 31, 429-439.	8.7	74
21	The Effects of Mechanical Stress and Spectral Shading on the Growth and Allocation of Ten Genotypes of a Stoloniferous Plant. <i>Annals of Botany</i> , 2007, 99, 121-130.	2.9	72
22	A meta-analysis of leaf nitrogen distribution within plant canopies. <i>Annals of Botany</i> , 2016, 118, 239-247.	2.9	66
23	Evolutionarily Stable Leaf Area Production in Plant Populations. <i>Journal of Theoretical Biology</i> , 2002, 217, 15-32.	1.7	65
24	A novel method of measuring leaf epidermis and mesophyll stiffness shows the ubiquitous nature of the sandwich structure of leaf laminas in broad-leaved angiosperm species. <i>Journal of Experimental Botany</i> , 2015, 66, 2487-2499.	4.8	65
25	Trampling, defoliation and physiological integration affect growth, morphological and mechanical properties of a root-suckering clonal tree. <i>Annals of Botany</i> , 2012, 109, 1001-1008.	2.9	60
26	Understanding and optimizing species mixtures using functional-structural plant modelling. <i>Journal of Experimental Botany</i> , 2019, 70, 2381-2388.	4.8	54
27	Mangrove Seedling Net Photosynthesis, Growth, and Survivorship are Interactively Affected by Salinity and Light. <i>Biotropica</i> , 2006, 38, 606-616.	1.6	50
28	Modelling canopy photosynthesis using parameters determined from simple non-destructive measurements. <i>Ecological Research</i> , 1997, 12, 77.	1.5	49
29	SHOOT STRUCTURE, LEAF PHYSIOLOGY, AND DAILY CARBON GAIN OF PLANT SPECIES IN A TALLGRASS MEADOW. <i>Ecology</i> , 2003, 84, 955-968.	3.2	49
30	Biomass allocation and leaf life span in relation to light interception by tropical forest plants during the first years of secondary succession. <i>Journal of Ecology</i> , 2008, 96, 1211-1221.	4.0	49
31	Corrections for rooting volume and plant size reveal negative effects of neighbour presence on root allocation in pea. <i>Functional Ecology</i> , 2015, 29, 1383-1391.	3.6	48
32	Is analysing the nitrogen use at the plant canopy level a matter of choosing the right optimization criterion?. <i>Oecologia</i> , 2011, 167, 293-303.	2.0	47
33	Detect thy family: Mechanisms, ecology and agricultural aspects of kin recognition in plants. <i>Plant, Cell and Environment</i> , 2021, 44, 1059-1071.	5.7	46
34	Interactive Effects of Spectral Shading and Mechanical Stress on the Expression and Costs of Shade Avoidance. <i>American Naturalist</i> , 2009, 173, 241-255.	2.1	44
35	Challenges to understand plant responses to wind. <i>Plant Signaling and Behavior</i> , 2011, 6, 1057-1059.	2.4	41
36	Sustainable harvesting of non-timber forest products based on ecological and economic criteria. <i>Journal of Applied Ecology</i> , 2015, 52, 389-401.	4.0	39

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37	Allometric Equations for Aboveground and Belowground Biomass Estimations in an Evergreen Forest in Vietnam. PLoS ONE, 2016, 11, e0156827.	2.5	39
38	When does it pay off to prime for defense? A modeling analysis. New Phytologist, 2017, 216, 782-797.	7.3	39
39	Subtle variation in shade avoidance responses may have profound consequences for plant competitiveness. Annals of Botany, 2018, 121, 863-873.	2.9	39
40	Estimating the aboveground biomass in an old secondary forest on limestone in the Moluccas, Indonesia: Comparing locally developed versus existing allometric models. Forest Ecology and Management, 2017, 389, 27-34.	3.2	37
41	Leaves of pioneer and later successional trees have similar lifetime carbon gain in tropical secondary forest. Ecology, 2010, 91, 1102-1113.	3.2	35
42	Height convergence in response to neighbour growth: genotypic differences in the stoloniferous plant <i>Potentilla reptans</i> . New Phytologist, 2008, 177, 688-697.	7.3	32
43	From shade avoidance responses to plant performance at vegetation level: using virtual plant modelling as a tool. New Phytologist, 2014, 204, 268-272.	7.3	31
44	Carbon dioxide fertilization offsets negative impacts of climate change on Arabica coffee yield in Brazil. Climatic Change, 2017, 144, 671-685.	3.6	31
45	Aboveground mechanical stimuli affect belowground plant-plant communication. PLoS ONE, 2018, 13, e0195646.	2.5	30
46	Ethylene sensitivity affects changes in growth patterns, but not stem properties, in response to mechanical stress in tobacco. Physiologia Plantarum, 2006, 128, 274-282.	5.2	27
47	How light competition between plants affects their response to climate change. New Phytologist, 2014, 203, 1253-1265.	7.3	27
48	The birth of a new cropping system: towards sustainability in the sub-tropical lowland agriculture. Field Crops Research, 2017, 212, 82-94.	5.1	27
49	Elucidating the interaction between light competition and herbivore feeding patterns using functional structural plant modelling. Annals of Botany, 2018, 121, 1019-1031.	2.9	27
50	Carbon gain in the competition for light between genotypes of the clonal herb <i>Potentilla reptans</i> . Journal of Ecology, 2009, 97, 508-517.	4.0	26
51	Gap-dependence in mangrove life-history strategies: a consideration of the entire life cycle and patch dynamics. Journal of Ecology, 2007, 95, 1222-1233.	4.0	25
52	Strong persistent growth differences govern individual performance and population dynamics in a tropical forest understorey palm. Journal of Ecology, 2012, 100, 1224-1232.	4.0	25
53	Effects of Trampling on Morphological and Mechanical Traits of Dryland Shrub Species Do Not Depend on Water Availability. PLoS ONE, 2013, 8, e53021.	2.5	25
54	An evolutionary game of leaf dynamics and its consequences for canopy structure. Functional Ecology, 2012, 26, 1024-1032.	3.6	24

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55	Intraspecific variation of a desert shrub species in phenotypic plasticity in response to sand burial. <i>New Phytologist</i> , 2013, 199, 991-1000.	7.3	24
56	Resilience to chronic defoliation in a dioecious understorey tropical rain forest palm. <i>Journal of Ecology</i> , 2012, 100, 1245-1256.	4.0	23
57	More cells, bigger cells or simply reorganization? Alternative mechanisms leading to changed internode architecture under contrasting stress regimes. <i>New Phytologist</i> , 2014, 201, 193-204.	7.3	23
58	Biomass dynamics in a logged forest: the role of wood density. <i>Journal of Plant Research</i> , 2018, 131, 611-621.	2.4	21
59	Neighbourhood-dependent root distributions and the consequences on root separation in arid ecosystems. <i>Journal of Ecology</i> , 2020, 108, 1635-1648.	4.0	20
60	Genetic diversity of native and cultivated Ugandan Robusta coffee (<i>Coffea canephora</i> Pierre ex A.) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 e0245965.	2.5	20
61	Genotypic selection shapes patterns of within-species diversity in experimental plant populations. <i>Journal of Ecology</i> , 2009, 97, 1020-1027.	4.0	18
62	15N in tree rings as a bio-indicator of changing nitrogen cycling in tropical forests: an evaluation at three sites using two sampling methods. <i>Frontiers in Plant Science</i> , 2015, 6, 229.	3.6	16
63	The presence of a below-ground neighbour alters within-plant seed size distribution in <i>Phaseolus vulgaris</i> . <i>Annals of Botany</i> , 2014, 114, 937-943.	2.9	15
64	Defoliation effects on seed dispersal and seedling recruitment in a tropical rain forest understorey palm. <i>Journal of Ecology</i> , 2014, 102, 709-720.	4.0	15
65	Defoliation and gender effects on fitness components in three congeneric and sympatric understorey palms. <i>Journal of Ecology</i> , 2012, 100, 1544-1556.	4.0	14
66	Enemies lost: parallel evolution in structural defense and tolerance to herbivory of invasive <i>Jacobaea vulgaris</i> . <i>Biological Invasions</i> , 2015, 17, 2339-2355.	2.4	14
67	Variation in plastic responses to light results from selection in different competitive environments—a game theoretical approach using virtual plants. <i>PLoS Computational Biology</i> , 2019, 15, e1007253.	3.2	14
68	Moving resources away from the herbivore: regulation and adaptive significance. <i>New Phytologist</i> , 2010, 188, 643-645.	7.3	13
69	Testing for disconnection and distance effects on physiological self-recognition within clonal fragments of <i>Potentilla reptans</i> . <i>Frontiers in Plant Science</i> , 2015, 6, 215.	3.6	13
70	Presence of Belowground Neighbors Activates Defense Pathways at the Expense of Growth in Tobacco Plants. <i>Frontiers in Plant Science</i> , 2019, 10, 751.	3.6	13
71	Quantifying the contribution of bent shoots to plant photosynthesis and biomass production of flower shoots in rose (<i>Rosa hybrida</i>) using a functional structural plant model. <i>Annals of Botany</i> , 2020, 126, 587-599.	2.9	13
72	Disentangling the effects of photosynthetically active radiation and red to far-red ratio on plant photosynthesis under canopy shading: a simulation study using a functional structural plant model. <i>Annals of Botany</i> , 2020, 126, 635-646.	2.9	13

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73	No neighbour-induced increase in root growth of soybean and sunflower in mesh-divider experiments after controlling for nutrient concentration and soil volume. <i>AoB PLANTS</i> , 2021, 13, plab020.	2.3	13
74	Leaf Investment and Light Partitioning among Leaves of Different Genotypes of the Clonal Plant <i>Potentilla reptans</i> in a Dense Stand after 5 Years of Competition. <i>Annals of Botany</i> , 2008, 102, 935-943.	2.9	12
75	Ecological significance of light quality in optimizing plant defence. <i>Plant, Cell and Environment</i> , 2019, 42, 1065-1077.	5.7	12
76	The analysis of plant root responses to nutrient concentration, soil volume and neighbour presence: Different statistical approaches reflect different underlying basic questions. <i>Functional Ecology</i> , 2020, 34, 2210-2217.	3.6	12
77	Shade induced changes in biomechanical petiole properties in the stoloniferous herb <i>Trifolium repens</i> . <i>Evolutionary Ecology</i> , 2008, 22, 399-416.	1.2	11
78	Impacts of climate change on net primary productivity of grasslands in Inner Mongolia. <i>Rangeland Journal</i> , 2014, 36, 493.	0.9	11
79	Trait Acclimation Mitigates Mortality Risks of Tropical Canopy Trees under Global Warming. <i>Frontiers in Plant Science</i> , 2016, 7, 607.	3.6	11
80	Stimulating seedling growth in early stages of secondary forest succession: a modeling approach to guide tree liberation. <i>Frontiers in Plant Science</i> , 2014, 5, 345.	3.6	10
81	Trends in tropical tree growth: re-analyses confirm earlier findings. <i>Global Change Biology</i> , 2017, 23, 1761-1762.	9.5	10
82	Towards smarter harvesting from natural palm populations by sparing the individuals that contribute most to population growth or productivity. <i>Journal of Applied Ecology</i> , 2018, 55, 1682-1691.	4.0	9
83	An evolutionary game theoretical model shows the limitations of the additive partitioning method for interpreting biodiversity experiments. <i>Journal of Ecology</i> , 2017, 105, 345-353.	4.0	8
84	Light from below matters: Quantifying the consequences of responses to far-red light reflected upwards for plant performance in heterogeneous canopies. <i>Plant, Cell and Environment</i> , 2021, 44, 102-113.	5.7	8
85	Whole-canopy nitrogen-use efficiency of pioneer species in early secondary forest succession in Vietnam. <i>Ecological Research</i> , 2009, 24, 811-820.	1.5	7
86	Whole-canopy carbon gain as a result of selection on individual performance of ten genotypes of a clonal plant. <i>Oecologia</i> , 2013, 172, 327-337.	2.0	7
87	Adaptive potential of <i>Coffea canephora</i> from Uganda in response to climate change. <i>Molecular Ecology</i> , 2022, 31, 1800-1819.	3.9	7
88	Genetic diversity reveals synergistic interaction between yield components could improve the sink size and yield in rice. <i>Food and Energy Security</i> , 2022, 11, .	4.3	6
89	Terrestrial vs aquatic plants: how general is the drag tolerance-avoidance trade-off?. <i>New Phytologist</i> , 2012, 193, 6-8.	7.3	5
90	Genotypic and Phenotypic Diversity Does Not Affect Productivity and Drought Response in Competitive Stands of <i>Trifolium repens</i> . <i>Frontiers in Plant Science</i> , 2016, 7, 364.	3.6	5

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91	Turning plant interactions upside down: Light signals from below matter. <i>Plant, Cell and Environment</i> , 2021, 44, 1111-1118.	5.7	5
92	Kin discrimination in allelopathy and consequences for agricultural weed control. <i>Plant, Cell and Environment</i> , 2021, 44, 3705-3708.	5.7	5
93	Effects of Mechanical Stress and Plant Density on Mechanical Characteristics, Growth, and Lifetime Reproduction of Tobacco Plants. <i>American Naturalist</i> , 2005, 166, 650.	2.1	5
94	Optimal plant defence under competition for light and nutrients: an evolutionary modelling approach. <i>In Silico Plants</i> , 2020, 2, .	1.9	4
95	Understanding the impact of plant competition on the coupling between vegetation and the atmosphere. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2015, 120, 2212-2228.	3.0	3
96	Explaining long-term inter-individual growth variation in plant populations: persistence of abiotic factors matters. <i>Oecologia</i> , 2017, 185, 663-674.	2.0	3
97	Heritability of growth and leaf loss compensation in a long-lived tropical understorey palm. <i>PLoS ONE</i> , 2019, 14, e0209631.	2.5	3
98	Maternal Environmental Light Conditions Affect the Morphological Allometry and Dispersal Potential of <i>Acer palmatum</i> Samaras. <i>Forests</i> , 2021, 12, 1313.	2.1	3
99	Functional Significance of Shade-Induced Leaf Senescence in Dense Canopies: An Experimental Test Using Transgenic Tobacco. <i>American Naturalist</i> , 2006, 168, 597.	2.1	3
100	Plant ecology.â€” Schulze ED, Beck E, MÃ¼ller-Hohenstein K. 2005. Berlin/Heidelberg: Springer. \$89Â–95 (hardback). 702 pp.. <i>Annals of Botany</i> , 2006, 97, 153-153.	2.9	2
101	Plantâ€“plant interactions mediate the plastic and genotypic response of <i>Plantago asiatica</i> to CO ₂ : an experiment with plant populations from naturally high CO ₂ areas. <i>Annals of Botany</i> , 2016, 117, 1197-1207.	2.9	2
102	Touch and plant defence: volatile communication with neighbours. <i>Journal of Experimental Botany</i> , 2019, 70, 371-374.	4.8	1