

# Lucas Cr Silva

## List of Publications by Year in descending order

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Version: 2024-02-01

89  
papers

3,916  
citations

136950

32  
h-index

133252

59  
g-index

90  
all docs

90  
docs citations

90  
times ranked

5332  
citing authors

| #  | ARTICLE  | IF   | CITATIONS |
|----|--|------|-----------|
| 1  | Carbon stocks in umbric ferralsols driven by plant productivity and geomorphic processes, not by mineral protection. <i>Earth Surface Processes and Landforms</i> , 2022, 47, 491-508.   | 2.5  | 5         |
| 2  | Reply to: Evidence confirms an anthropic origin of Amazonian Dark Earths. <i>Nature Communications</i> , 2022, 13, .   | 12.8 | 2         |
| 3  | A generalizable framework for enhanced natural climate solutions. <i>Plant and Soil</i> , 2022, 479, 3-24.   | 3.7  | 6         |
| 4  | Atmospheric factors outweigh species traits and soil properties in explaining spatiotemporal variation in water-use efficiency of tropical and subtropical forest species. <i>Agricultural and Forest Meteorology</i> , 2022, 323, 109056. | 4.8  | 1         |
| 5  | Soil-plant-atmosphere interactions: structure, function, and predictive scaling for climate change mitigation. <i>Plant and Soil</i> , 2021, 461, 5-27.  | 3.7  | 58        |
| 6  | Sixteen hundred years of increasing tree cover prior to modern deforestation in Southern Amazon and Central Brazilian savannas. <i>Global Change Biology</i> , 2021, 27, 136-150.  | 9.5  | 21        |
| 7  | Beyond total carbon: conversion of amazon forest to pasture alters indicators of soil C cycling. <i>Biogeochemistry</i> , 2021, 152, 179-194.  | 3.5  | 12        |
| 8  | A new hypothesis for the origin of Amazonian Dark Earths. <i>Nature Communications</i> , 2021, 12, 127.  | 12.8 | 21        |
| 9  | Climate-induced reversal of tree growth patterns at a tropical treeline. <i>Science Advances</i> , 2021, 7, .  | 10.3 | 19        |
| 10 | Long-term crop rotation diversification enhances maize drought resistance through soil organic matter. <i>Environmental Research Letters</i> , 2021, 16, 084067.   | 5.2  | 37        |
| 11 | A record of vapour pressure deficit preserved in wood and soil across biomes. <i>Scientific Reports</i> , 2021, 11, 662.   | 3.3  | 15        |
| 12 | A State Factor Model for Ecosystem Carbon-Water Relations. <i>Trends in Plant Science</i> , 2020, 25, 652-660.   | 8.8  | 12        |
| 13 | From Trees to Ecosystems: Spatiotemporal Scaling of Climatic Impacts on Montane Landscapes Using Dendrochronological, Isotopic, and Remotely Sensed Data. <i>Global Biogeochemical Cycles</i> , 2020, 34, e2019GB006325.                   | 4.9  | 16        |
| 14 | Fire Affects Asymbiotic Nitrogen Fixation in Southern Amazon Forests. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2020, 125, e2019JG005383.   | 3.0  | 9         |
| 15 | Litter and soil biogeochemical parameters as indicators of sustainable logging in Central Amazonia. <i>Science of the Total Environment</i> , 2020, 714, 136780.   | 8.0  | 9         |
| 16 | The oldest extant tropical peatland in the world: a major carbon reservoir for at least 47â€‰%000 years. <i>Environmental Research Letters</i> , 2020, 15, 114027.   | 5.2  | 18        |
| 17 | Better estimates of soil carbon from geographical data: a revised global approach. <i>Mitigation and Adaptation Strategies for Global Change</i> , 2019, 24, 355-372.  | 2.1  | 26        |
| 18 | Effects of ferric sulfate and polyaluminum chloride coagulation enhanced treatment wetlands on <i>Typha</i> growth, soil and water chemistry. <i>Science of the Total Environment</i> , 2019, 648, 116-124.                                | 8.0  | 21        |

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|----|---|------|-----------|
| 19 | Exposure to Light Elicits a Spectrum of Chemical Changes in Soil. <i>Journal of Geophysical Research F: Earth Surface</i> , 2019, 124, 2288-2310.   | 2.8  | 4         |
| 20 | Two Decades of Experimental Manipulation Reveal Potential for Enhanced Biomass Accumulation and Water Use Efficiency in Ponderosa Pine Plantations Across Climate Gradients. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2019, 124, 2321-2334. | 3.0  | 12        |
| 21 | Coping With Extreme Events: Growth and Water Use Efficiency of Trees in Western Mexico During the Driest and Wettest Periods of the Past One Hundred Sixty Years. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2019, 124, 3419-3431.            | 3.0  | 16        |
| 22 | North America's oldest boreal trees are more efficient water users due to increased [CO <sub>2</sub> ], but do not grow faster. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 2749-2754.                | 7.1  | 76        |
| 23 | Reconstruction of Holocene coupling between the South American Monsoon System and local moisture variability from speleothem $\delta^{18}O$ and $87Sr/86Sr$ records. <i>Quaternary Science Reviews</i> , 2019, 210, 51-63.                                    | 3.0  | 22        |
| 24 | Interactive effects of land-use change and topography on asymbiotic nitrogen fixation in the Brazilian Atlantic Forest. <i>Biogeochemistry</i> , 2019, 142, 137-153.  | 3.5  | 15        |
| 25 | Linking Remote Sensing and Dendrochronology to Quantify Climate-Induced Shifts in High-Elevation Forests Over Space and Time. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2019, 124, 166-183.  | 3.0  | 48        |
| 26 | Integrating effects of species composition and soil properties to predict shifts in montane forest carbon-water relations. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, E4219-E4226.                   | 7.1  | 58        |
| 27 | Soil-Plant-Atmosphere Interactions. <i>Developments in Soil Science</i> , 2018, , 29-60.  | 0.5  | 4         |
| 28 | Predictable Oxygen Isotope Exchange Between Plant Lipids and Environmental Water: Implications for Ecosystem Water Balance Reconstruction. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2018, 123, 2941-2954.                                   | 3.0  | 4         |
| 29 | Assessing response of local moisture conditions in central Brazil to variability in regional monsoon intensity using speleothem $87Sr/86Sr$ values. <i>Earth and Planetary Science Letters</i> , 2017, 463, 310-322.  | 4.4  | 48        |
| 30 | Nitrogen Fertilization Had No Effect on CH <sub>4</sub> and N <sub>2</sub> O Emissions in Rice Planted in Rewetted Peatlands. <i>Soil Science Society of America Journal</i> , 2017, 81, 224-232.   | 2.2  | 11        |
| 31 | Carbon sequestration beyond tree longevity. <i>Science</i> , 2017, 355, 1141-1141.  | 12.6 | 7         |
| 32 | Impact of root growth and hydraulic conductance on canopy carbon-water relations of young walnut trees ( <i>Juglans regia</i> L.) under drought. <i>Scientia Horticulturae</i> , 2017, 226, 342-352.  | 3.6  | 20        |
| 33 | Temperature gradients assist carbohydrate allocation within trees. <i>Scientific Reports</i> , 2017, 7, 3265.   | 3.3  | 47        |
| 34 | Plant-microbe interactions regulate carbon and nitrogen accumulation in forest soils. <i>Forest Ecology and Management</i> , 2017, 384, 415-423.  | 3.2  | 26        |
| 35 | Expanding the geography of evapotranspiration: An improved method to quantify land-to-air water fluxes in tropical and subtropical regions. <i>PLoS ONE</i> , 2017, 12, e0180055.   | 2.5  | 6         |
| 36 | Bark water uptake promotes localized hydraulic recovery in coastal redwood crown. <i>Plant, Cell and Environment</i> , 2016, 39, 320-328.   | 5.7  | 84        |

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|----|--|------|-----------|
| 37 | Climatic sensitivity, water-use efficiency, and growth decline in boreal jack pine ( <i>Pinus</i> ) Tj ETQq1 1 0.784314 rgBT /Overlock 10 T55<br>121, 2761-2774.   | 3.0  | 26        |
| 38 | Tree growth acceleration and expansion of alpine forests: The synergistic effect of atmospheric and edaphic change. <i>Science Advances</i> , 2016, 2, e1501302.   | 10.3 | 74        |
| 39 | How are soil carbon and tropical biodiversity related?. <i>Environmental Conservation</i> , 2016, 43, 231-241.   | 1.3  | 37        |
| 40 | Survival and growth of native <i>Tachigali vulgaris</i> and exotic <i>Eucalyptus urophylla</i> — <i>Eucalyptus grandis</i> trees in degraded soils with biochar amendment in southern Amazonia. <i>Forest Ecology and Management</i> , 2016, 368, 173-182.   | 3.2  | 26        |
| 41 | Isotopic and nutritional evidence for species- and site-specific responses to N deposition and elevated CO <sub>2</sub> in temperate forests. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2015, 120, 1110-1123.   | 3.0  | 32        |
| 42 | Carbon dioxide level and form of soil nitrogen regulate assimilation of atmospheric ammonia in young trees. <i>Scientific Reports</i> , 2015, 5, 13141.  | 3.3  | 17        |
| 43 | Quantifying the impact of drought on soil-plant interactions: a seasonal analysis of biotic and abiotic controls of carbon and nutrient dynamics in high-altitudinal grasslands. <i>Plant and Soil</i> , 2015, 389, 59-71.   | 3.7  | 23        |
| 44 | Seasonal variation in groundwater depth does not explain structure and diversity of tropical savannas. <i>Journal of Vegetation Science</i> , 2015, 26, 404-406.   | 2.2  | 4         |
| 45 | From air to land: understanding water resources through plant-based multidisciplinary research. <i>Trends in Plant Science</i> , 2015, 20, 399-401.  | 8.8  | 16        |
| 46 | Iron-mediated stabilization of soil carbon amplifies the benefits of ecological restoration in degraded lands. <i>Ecological Applications</i> , 2015, 25, 1226-1234.   | 3.8  | 37        |
| 47 | Characterization of Winery Wastewater for Reuse in California. <i>American Journal of Enology and Viticulture</i> , 2015, 66, 302-310.   | 1.7  | 20        |
| 48 | Productivity-efficiency tradeoffs in tropical gallery forest-savanna transitions: linking plant and soil processes through litter input and composition. <i>Plant Ecology</i> , 2015, 216, 775-787.  | 1.6  | 35        |
| 49 | Climate warming alters nitrogen dynamics and total non-structural carbohydrate accumulations of perennial herbs of distinctive functional groups during the plant senescence in autumn in an alpine meadow of the Tibetan Plateau, China. <i>Agricultural and Forest Meteorology</i> , 2015, 200, 21-29. | 4.8  | 38        |
| 50 | Carbon isotopic signatures of soil organic matter correlate with leaf area index across woody biomes. <i>Journal of Ecology</i> , 2014, 102, 1606-1611.  | 4.0  | 21        |
| 51 | Understory species regulate litter decomposition and accumulation of C and N in forest soils: A long-term dual-isotope experiment. <i>Forest Ecology and Management</i> , 2014, 329, 318-327.  | 3.2  | 53        |
| 52 | Cerrado vegetation and global change: the role of functional types, resource availability and disturbance in regulating plant community responses to rising CO <sub>2</sub> levels and climate warming. <i>Theoretical and Experimental Plant Physiology</i> , 2014, 26, 19-38.                          | 2.4  | 91        |
| 53 | Using multielement isotopic analysis to decipher drought impacts and adaptive management in ancient agricultural systems. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, E4807-8.   | 7.1  | 15        |
| 54 | Importance of climate-driven forest-savanna biome shifts in anthropological and ecological research. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, E3831-2.  | 7.1  | 18        |

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|----|--|------|-----------|
| 55 | Natural history and evolution of the Kwongan – a global biodiversity hotspot. Trends in Plant Science, 2014, 19, 686.  | 8.8  | 0         |
| 56 | Do woody and herbaceous species compete for soil water across topographic gradients? Evidence for niche partitioning in a Neotropical savanna. South African Journal of Botany, 2014, 91, 14-18.   | 2.5  | 39        |
| 57 | Probing for the influence of atmospheric $\text{CO}_2$ and climate change on forest ecosystems across biomes. Global Ecology and Biogeography, 2013, 22, 83-92.  | 5.8  | 157       |
| 58 | Can savannas become forests? A coupled analysis of nutrient stocks and fire thresholds in central Brazil. Plant and Soil, 2013, 373, 829-842.  | 3.7  | 132       |
| 59 | The scientific value of the largest remaining old-growth red pine forests in North America. Biodiversity and Conservation, 2013, 22, 1847-1861.  | 2.6  | 9         |
| 60 | Unprecedented carbon accumulation in mined soils: the synergistic effect of resource input and plant species invasion. Ecological Applications, 2013, 23, 1345-1356.   | 3.8  | 72        |
| 61 | Estimates of soil carbon concentration in tropical and temperate forest and woodland from available GIS data on three continents. Global Ecology and Biogeography, 2013, 22, 461-469.  | 5.8  | 24        |
| 62 | Growth decline and divergent tree ring isotopic composition ( $\delta^{13}\text{C}$ and $\delta^{18}\text{O}$ ) contradict predictions of $\text{CO}_2$ stimulation in high altitudinal forests. Global Change Biology, 2013, 19, 1748-1758. | 9.5  | 79        |
| 63 | Use of Chemical and Physical Characteristics To Investigate Trends in Biochar Feedstocks. Journal of Agricultural and Food Chemistry, 2013, 61, 2196-2204.   | 5.2  | 333       |
| 64 | Old Trees: Large and Small. Science, 2013, 339, 904-905.   | 12.6 | 10        |
| 65 | Testing protocol ensures the authenticity of organic fertilizers. California Agriculture, 2013, 67, 210-216.   | 0.8  | 7         |
| 66 | Historical links and new frontiers in the study of forest-atmosphere interactions. Community Ecology, 2013, 14, 208-218.   | 0.9  | 17        |
| 67 | Quantifying the Effects of Green Waste Compost Application, Water Content and Nitrogen Fertilization on Nitrous Oxide Emissions in 10 Agricultural Soils. Journal of Environmental Quality, 2013, 42, 912-918.                               | 2.0  | 24        |
| 68 | Explaining Global Increases in Water Use Efficiency: Why Have We Overestimated Responses to Rising Atmospheric $\text{CO}_2$ in Natural Forest Ecosystems?. PLoS ONE, 2013, 8, e53089.   | 2.5  | 64        |
| 69 | A simple procedure for the purification of active fractions in aqueous extracts of plants with allelopathic properties. Acta Botanica Brasilica, 2013, 27, 50-53.  | 0.8  | 6         |
| 70 | Florestas estacionais e Áreas de ecotono no estado do Tocantins, Brasil: parâmetros estruturais, classificações das fitofisionomias florestais e subsídios para conservação. Acta Amazonica, 2013, 43, 261-290.                              | 0.7  | 38        |
| 71 | Iron: The Forgotten Driver of Nitrous Oxide Production in Agricultural Soil. PLoS ONE, 2013, 8, e60146.  | 2.5  | 38        |
| 72 | Recruitment patterns and northward tree migration through gap dynamics in an old-growth white pine forest in northern Ontario. Plant Ecology, 2012, 213, 1699-1714.  | 1.6  | 19        |

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|----|--|-----|-----------|
| 73 | Depth of water uptake in woody plants relates to groundwater level and vegetation structure along a topographic gradient in a neotropical savanna. <i>Environmental and Experimental Botany</i> , 2012, 77, 259-266.                                 | 4.2 | 124       |
| 74 | Ecological thresholds at the savanna-forest boundary: how plant traits, resources and fire govern the distribution of tropical biomes. <i>Ecology Letters</i> , 2012, 15, 759-768.   | 6.4 | 649       |
| 75 | Variações ambientais e relações florísticas no cerrado sensu stricto sobre areia (Neossolo) Tj ETQq1 1 0.784314 rgBT /Overlock<br><i>Neotropical Biology</i> , 2012, 8, .  | 0.1 | 0         |
| 76 | Evidence of shift in C4 species range in central Argentina during the late Holocene. <i>Plant and Soil</i> , 2011, 349, 261-279.   | 3.7 | 35        |
| 77 | Mechanisms of Araucaria (Atlantic) Forest Expansion into Southern Brazilian Grasslands. <i>Ecosystems</i> , 2011, 14, 1354-1371.   | 3.4 | 61        |
| 78 | Northward migrating trees establish in treefall gaps at the northern limit of the temperate-boreal ecotone, Ontario, Canada. <i>Oecologia</i> , 2010, 164, 1095-1106.  | 2.0 | 62        |
| 79 | Deciphering earth mound origins in central Brazil. <i>Plant and Soil</i> , 2010, 336, 3-14.  | 3.7 | 40        |
| 80 | Not all forests are expanding over central Brazilian savannas. <i>Plant and Soil</i> , 2010, 333, 431-442.   | 3.7 | 24        |
| 81 | Fertilidade química de um substrato tratado com lodo de esgoto e composto de resíduos domésticos. <i>Revista Brasileira De Engenharia Agrícola E Ambiental</i> , 2010, 14, 538-544.  | 1.1 | 10        |
| 82 | Evolução da qualidade do substrato de uma área minerada no cerrado revegetada com <i>Stylosanthes</i> spp. <i>Revista Brasileira De Engenharia Agrícola E Ambiental</i> , 2010, 14, 835-841.   | 1.1 | 9         |
| 83 | Características funcionais de folhas de sol e sombra de espécies arbóreas em uma mata de galeria no Distrito Federal, Brasil. <i>Acta Botanica Brasilica</i> , 2010, 24, 640-647.  | 0.8 | 26        |
| 84 | Recent Widespread Tree Growth Decline Despite Increasing Atmospheric CO <sub>2</sub> . <i>PLoS ONE</i> , 2010, 5, e11543.  | 2.5 | 134       |
| 85 | Past century changes in <i>Araucaria angustifolia</i> (Bertol.) Kuntze water use efficiency and growth in forest and grassland ecosystems of southern Brazil: implications for forest expansion. <i>Global Change Biology</i> , 2009, 15, 2387-2396. | 9.5 | 73        |
| 86 | Expansion of gallery forests into central Brazilian savannas. <i>Global Change Biology</i> , 2008, 14, 2108-2118.  | 9.5 | 125       |
| 87 | Sobrevivência e crescimento de seis espécies arbóreas submetidas a quatro tratamentos em área minerada no cerrado. <i>Revista Arvore</i> , 2008, 32, 731-740.  | 0.5 | 22        |
| 88 | Caracterização da polpa do coquinho-azedo ( <i>Butia capitata</i> var <i>capitata</i> ). <i>Revista Brasileira De Fruticultura</i> , 2008, 30, 827-829.  | 0.5 | 32        |
| 89 | Caracterização química da amêndoa de coquinho-azedo ( <i>Butia capitata</i> var <i>capitata</i> ). <i>Revista Brasileira De Fruticultura</i> , 2008, 30, 549-552.  | 0.5 | 23        |