Nathaniel D Mueller

List of Publications by Year
in descending order

64 papers	17,759 citations	87723 38 h-index	110170 64 g-index
69 all docs	69 docs citations	69 times ranked	22001 citing authors

#	Article	IF	Citations
1	Solutions for a cultivated planet. Nature, 2011, 478, 337-342.	13.7	5,821
2	Yield Trends Are Insufficient to Double Global Crop Production by 2050. PLoS ONE, 2013, 8, e66428.	1.1	2,328
3	Closing yield gaps through nutrient and water management. Nature, 2012, 490, 254-257.	13.7	2,055
4	Recent patterns of crop yield growth and stagnation. Nature Communications, 2012, 3, 1293.	5.8	1,146
5	Climate Change and Global Food Systems: Potential Impacts on Food Security and Undernutrition. Annual Review of Public Health, 2017, 38, 259-277.	7.6	591
6	Leverage points for improving global food security and the environment. Science, 2014, 345, 325-328.	6.0	584
7	A global strategy for road building. Nature, 2014, 513, 229-232.	13.7	579
8	Greenhouse gas emissions intensity of globalÂcroplands. Nature Climate Change, 2017, 7, 63-68.	8.1	414
9	Random Forests for Global and Regional Crop Yield Predictions. PLoS ONE, 2016, 11, e0156571.	1.1	377
10	Global and regional drivers of land-use emissions in 1961â€“2017. Nature, 2021, 589, 554-561.	13.7	256
11	Use of agro-climatic zones to upscale simulated crop yield potential. Field Crops Research, 2013, 143, 44-55.	2.3	234
12	Nitrogen use in the global food system: past trends and future trajectories of agronomic performance, pollution, trade, and dietary demand. Environmental Research Letters, 2016, 11, 095007.	2.2	227
13	Cooling of US Midwest summer temperature extremes from cropland intensification. Nature Climate Change, 2016, 6, 317-322.	8.1	191
14	The Global Gridded Crop Model Intercomparison: data and modeling protocols for Phase 1 (v1.0). Geoscientific Model Development, 2015, 8, 261-277.	1.3	190
15	Agricultural risks from changing snowmelt. Nature Climate Change, 2020, 10, 459-465.	8.1	187
16	Decreases in global beer supply due to extreme drought and heat. Nature Plants, 2018, 4, 964-973.	4.7	153
17	Climate adaptation by crop migration. Nature Communications, 2020, 11, 1243.	5.8	153
18	Farmer perceptions of climate change: Associations with observed temperature and precipitation trends, irrigation, and climate beliefs. Global Environmental Change, 2016, 39, 133-142.	3.6	149

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19	Global malnutrition overlaps with pollinator-dependent micronutrient production. Proceedings of the Royal Society B: Biological Sciences, 2014, 281, 20141799.	1.2	124
20	Spatially explicit estimates of N₂O emissions from croplands suggest climate mitigation opportunities from improved fertilizer management. Global Change Biology, 2016, 22, 3383-3394.	4.2	112
21	Global wheat production potentials and management flexibility under the representative concentration pathways. Global and Planetary Change, 2014, 122, 107-121.	1.6	110
22	Quantification of global and national nitrogen budgets for crop production. Nature Food, 2021, 2, 529-540.	6.2	108
23	Flexibility and intensity of global water use. Nature Sustainability, 2019, 2, 515-523.	11.5	106
24	A tradeoff frontier for global nitrogen use and cereal production. Environmental Research Letters, 2014, 9, 054002.	2.2	100
25	The carbon opportunity cost of animal-sourced food production on land. Nature Sustainability, 2021, 4, 21-24.	11.5	100
26	Direct Effects, Compensation, and Recovery in Female Fathead Minnows Exposed to a Model Aromatase Inhibitor. Environmental Health Perspectives, 2009, 117, 624-631.	2.8	90
27	Peculiarly pleasant weather for US maize. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 11935-11940.	3.3	83
28	Dynamic Nature of Alterations in the Endocrine System of Fathead Minnows Exposed to the Fungicide Prochloraz. Toxicological Sciences, 2009, 112, 344-353.	1.4	72
29	An attainable global vision for conservation and human wellâ€being. Frontiers in Ecology and the Environment, 2018, 16, 563-570.	1.9	71
30	Global mapping of crop-specific emission factors highlights hotspots of nitrous oxide mitigation. Nature Food, 2021, 2, 886-893.	6.2	68
31	Global irrigation contribution to wheat and maize yield. Nature Communications, 2021, 12, 1235.	5.8	61
32	Impacts of ozone and climate change on yields of perennial crops in California. Nature Food, 2020, 1, 166-172.	6.2	59
33	Effects of a 3Î²-Hydroxysteroid Dehydrogenase Inhibitor, Trilostane, on the Fathead Minnow Reproductive Axis. Toxicological Sciences, 2008, 104, 113-123.	1.4	58
34	Declining spatial efficiency of global cropland nitrogen allocation. Global Biogeochemical Cycles, 2017, 31, 245-257.	1.9	55
35	Impact of transnational land acquisitions on local food security and dietary diversity. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	51
36	Use of chemical mixtures to differentiate mechanisms of endocrine action in a small fish model. Aquatic Toxicology, 2010, 99, 389-396.	1.9	43

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37	Global Relationships between Cropland Intensification and Summer Temperature Extremes over the Last 50 Years. Journal of Climate, 2017, 30, 7505-7528.	1.2	43
38	The Role of Latin Americaâ€™s Land and Water Resources for Global Food Security: Environmental Trade-Offs of Future Food Production Pathways. PLoS ONE, 2015, 10, e0116733.	1.1	41
39	Influence of ovarian stage on transcript profiles in fathead minnow (Pimephales promelas) ovary tissue. Aquatic Toxicology, 2010, 98, 354-366.	1.9	40
40	DNA barcoding confirms polyphagy in a generalist moth,Homona mermerodes(Lepidoptera:) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 622 T	1.7	39
41	Global priorities of environmental issues to combat food insecurity and biodiversity loss. Science of the Total Environment, 2020, 730, 139096.	3.9	39
42	Quantifying the Limitation to World Cereal Production Due To Soil Phosphorus Status. Global Biogeochemical Cycles, 2018, 32, 143-157.	1.9	36
43	Countries influence the trade-off between crop yields and nitrogen pollution. Nature Food, 2020, 1, 713-719.	6.2	34
44	Establishing long-term nitrogen response of global cereals to assess sustainable fertilizer rates. Nature Food, 2022, 3, 122-132.	6.2	30
45	Energy implications of the 21st century agrarian transition. Nature Communications, 2021, 12, 2319.	5.8	28
46	Health Impacts of the Green Revolution: Evidence from 600,000 births across the Developing World. Journal of Health Economics, 2020, 74, 102373.	1.3	26
47	Nitrogen challenges in global livestock systems. Nature Food, 2020, 1, 400-401.	6.2	24
48	Competition for water induced by transnational land acquisitions for agriculture. Nature Communications, 2022, 13, 505.	5.8	24
49	Effects of extreme temperature on Chinaâ€™s tea production. Environmental Research Letters, 2021, 16, 044040.	2.2	23
50	Current state of enteric methane and the carbon footprint of beef and dairy cattle in the United States. Animal Frontiers, 2021, 11, 57-68.	0.8	19
51	Data and analysis toolbox for modeling the nexus of food, energy, and water. Sustainable Cities and Society, 2020, 61, 102281.	5.1	19
52	Climate risks to Brazilian coffee production. Environmental Research Letters, 2020, 15, 104015.	2.2	19
53	The critical benefits of snowpack insulation and snowmelt for winter wheat productivity. Nature Climate Change, 2022, 12, 485-490.	8.1	19
54	I. Effects of a dopamine receptor antagonist on fathead minnow, Pimephales promelas, reproduction. Ecotoxicology and Environmental Safety, 2010, 73, 472-477.	2.9	17

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55	Evaluating the benefits of chlorophyll fluorescence for in-season crop productivity forecasting. Remote Sensing of Environment, 2021, 260, 112478.	4.6	16
56	Climate impacts and adaptation in US dairy systems 1981â€“2018. Nature Food, 2021, 2, 894-901.	6.2	16
57	II: Effects of a dopamine receptor antagonist on fathead minnow dominance behavior and ovarian gene expression in the fathead minnow and zebrafish. Ecotoxicology and Environmental Safety, 2010, 73, 478-485.	2.9	15
58	Closing Yield Gaps: Consequences for the Global Food Supply, Environmental Quality & Food Security. Daedalus, 2015, 144, 45-56.	0.9	13
59	Assessment of yield gaps on global grazedâ€only permanent pasture using climate binning. Global Change Biology, 2020, 26, 1820-1832.	4.2	11
60	Potential yield simulated by global gridded crop models: using a process-based emulator to explain their differences. Geoscientific Model Development, 2021, 14, 1639-1656.	1.3	6
61	Sustainable Pathways for Meeting Future Food Demand. , 2019, , 14-20.		5
62	Insights on Nitrogen and Phosphorus Coâ€Limitation in Global Croplands From Theoretical and Modeling Fertilization Experiments. Global Biogeochemical Cycles, 2021, 35, e2020GB006915.	1.9	3
63	Feeding a Full Planet. BioScience, 2016, 66, 423-424.	2.2	0
64	Reply to Kovaleski and Baseggio: Increased corn yields from historical climate trends are a double-edged sword. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 10209-10210.	3.3	0