M Todd Walter

List of Publications by Year
in descending order

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140 papers	5,356 citations	81743 39 h-index	106150 65 g-index
142 all docs	142 docs citations	142 times ranked	5680 citing authors

#	Article	IF	Citations
1	Using the Climate Forecast System Reanalysis as weather input data for watershed models. Hydrological Processes, 2014, 28, 5613-5623.	1.1	302
2	Re-conceptualizing the soil and water assessment tool (SWAT) model to predict runoff from variable source areas. Journal of Hydrology, 2008, 348, 279-291.	2.3	239
3	A soil-water-balance approach to quantify groundwater recharge from irrigated cropland in the North China Plain. Hydrological Processes, 2003, 17, 2011-2031.	1.1	208
4	A GIS-based variable source area hydrology model. Hydrological Processes, 1999, 13, 805-822.	1.1	179
5	Incorporating variable source area hydrology into a curveâ€numberâ€based watershed model. Hydrological Processes, 2007, 21, 3420-3430.	1.1	148
6	Process-based snowmelt modeling: does it require more input data than temperature-index modeling?. Journal of Hydrology, 2005, 300, 65-75.	2.3	141
7	Using a topographic index to distribute variable source area runoff predicted with the SCS curve-number equation. Hydrological Processes, 2004, 18, 2757-2771.	1.1	138
8	The effect of dams on river transport of microplastic pollution. Science of the Total Environment, 2019, 664, 834-840.	3.9	137
9	Increasing Evapotranspiration from the Conterminous United States. Journal of Hydrometeorology, 2004, 5, 405-408.	0.7	132
10	PHOSPHORUS TRANSPORT INTO SUBSURFACE DRAINS BY MACROPORES AFTER MANURE APPLICATIONS: IMPLICATIONS FOR BEST MANURE MANAGEMENT PRACTICES. Soil Science, 2001, 166, 896-909.	0.9	118
11	Identifying hydrologically sensitive areas: Bridging the gap between science and application. Journal of Environmental Management, 2006, 78, 63-76.	3.8	115
12	Effects of urbanization on direct runoff characteristics in urban functional zones. Science of the Total Environment, 2018, 643, 301-311.	3.9	111
13	Rainfall induced chemical transport from soil to runoff: theory and experiments. Journal of Hydrology, 2004, 295, 291-304.	2.3	108
14	Estimating basin-wide hydraulic parameters of a semi-arid mountainous watershed by recession-flow analysis. Journal of Hydrology, 2003, 279, 57-69.	2.3	99
15	Linking the pacific decadal oscillation to seasonal stream discharge patterns in Southeast Alaska. Journal of Hydrology, 2002, 263, 188-197.	2.3	98
16	Atrazine leaching from biochar-amended soils. Chemosphere, 2014, 95, 346-352.	4.2	87
17	Investigating raindrop effects on transport of sediment and non-sorbed chemicals from soil to surface runoff. Journal of Hydrology, 2005, 308, 313-320.	2.3	85
18	Refined conceptualization of TOPMODEL for shallow subsurface flows. Hydrological Processes, 2002, 16, 2041-2046.	1.1	78

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19	N2O emissions from grain cropping systems: a meta-analysis of the impacts of fertilizer-based and ecologically-based nutrient management strategies. Nutrient Cycling in Agroecosystems, 2017, 107, 335-355.	1.1	75
20	Unusual seasonal patterns and inferred processes of nitrogen retention in forested headwaters of the Upper Susquehanna River. Biogeochemistry, 2009, 93, 197-218.	1.7	70
21	Simple Estimation of Prevalence of Hortonian Flow in New York City Watersheds. Journal of Hydrologic Engineering - ASCE, 2003, 8, 214-218.	0.8	63
22	Dissecting the variable source area concept â€“ Subsurface flow pathways and water mixing processes in a hillslope. Journal of Hydrology, 2012, 420-421, 125-141.	2.3	60
23	Reducing adverse impacts of Amazon hydropower expansion. Science, 2022, 375, 753-760.	6.0	60
24	Hydrologic assessment of an urban variable source watershed in the northeast United States. Water Resources Research, 2007, 43, .	1.7	57
25	A phosphorus index that combines critical source areas and transport pathways using a travel time approach. Journal of Hydrology, 2013, 486, 123-135.	2.3	57
26	Plant-Microbe Interactions Drive Denitrification Rates, Dissolved Nitrogen Removal, and the Abundance of Denitrification Genes in Stormwater Control Measures. Environmental Science & Technology, 2018, 52, 9320-9329.	4.6	57
27	Modeling soil solute release into runoff with infiltration. Journal of Hydrology, 2007, 347, 430-437.	2.3	55
28	Hydrological impact of roadside ditches in an agricultural watershed in Central New York: implications for nonâ€point source pollutant transport. Hydrological Processes, 2013, 27, 2422-2437.	1.1	54
29	The Role of Denitrification in Stormwater Detention Basin Treatment of Nitrogen. Environmental Science & Technology, 2017, 51, 7928-7935.	4.6	52
30	Application of SMR to Modeling Watersheds in the Catskill Mountains. Environmental Modeling and Assessment, 2004, 9, 77-89.	1.2	51
31	Combined Monitoring and Modeling Indicate the Most Effective Agricultural Best Management Practices. Journal of Environmental Quality, 2008, 37, 1798-1809.	1.0	51
32	Metagenomic analysis reveals distinct patterns of denitrification gene abundance across soil moisture, nitrate gradients. Environmental Microbiology, 2019, 21, 1255-1266.	1.8	49
33	Stream Discharge in Tropical Headwater Catchments as a Result of Forest Clearing and Soil Degradation. Earth Interactions, 2012, 16, 1-18.	0.7	48
34	Assessing the Impact of Urbanization on Direct Runoff Using Improved Composite CN Method in a Large Urban Area. International Journal of Environmental Research and Public Health, 2018, 15, 775.	1.2	48
35	Defining probability of saturation with indicator kriging on hard and soft data. Advances in Water Resources, 2006, 29, 181-193.	1.7	47
36	A physical model of particulate wash-off from rough impervious surfaces. Journal of Hydrology, 2006, 327, 618-626.	2.3	45

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37	Hydrological Tracers Using Nanobiotechnology: Proof of Concept. Environmental Science & Technology, 2012, 46, 8928-8936.	4.6	44
38	THE IMPACT OF RUNOFF GENERATION MECHANISMS ON THE LOCATION OF CRITICAL SOURCE AREAS. Journal of the American Water Resources Association, 2006, 42, 793-804.	1.0	43
39	Shallow Groundwater Denitrification in Riparian Zones of a Headwater Agricultural Landscape. Journal of Environmental Quality, 2014, 43, 732-744.	1.0	42
40	Ecohydrologic considerations for modeling of stable water isotopes in a small intermittent watershed. Hydrological Processes, 2017, 31, 2438-2452.	1.1	42
41	Reduced raindrop-impact driven soil erosion by infiltration. Journal of Hydrology, 2007, 342, 331-335.	2.3	40
42	Investigating a high resolution, stream chloride time series from the Biscuit Brook catchment, Catskills, NY. Journal of Hydrology, 2008, 348, 245-256.	2.3	38
43	Using concurrent DNA tracer injections to infer glacial flow pathways. Hydrological Processes, 2015, 29, 5257-5274.	1.1	38
44	Assessing the impact of drought and forestry on streamflows in south-eastern Australia using a physically based hydrological model. Environmental Earth Sciences, 2015, 74, 6047-6063.	1.3	38
45	A Vulnerabilityâ€Based, Bottomâ€up Assessment of Future Riverine Flood Risk Using a Modified Peaksâ€Overâ€Threshold Approach and a Physically Based Hydrologic Model. Water Resources Research, 2017, 53, 10043-10064.	1.7	34
46	Evaluating weather observations and the Climate Forecast System Reanalysis as inputs for hydrologic modelling in the tropics. Hydrological Processes, 2016, 30, 3466-3477.	1.1	33
47	Comment on â€œBeyond the <scp>SCSâ€CN</scp> method: A theoretical framework for spatially lumped rainfallâ€runoff responseâ€by <scp>M</scp>. <scp>S.</scp> Bartlett et al.. Water Resources Research, 2017, 53, 6345-6350.	1.7	33
48	Funneled flow mechanisms in layered soil: field investigations. Journal of Hydrology, 2003, 279, 210-223.	2.3	32
49	Improving runoff risk estimates: Formulating runoff as a bivariate process using the SCS curve number method. Water Resources Research, 2009, 45, .	1.7	32
50	Modeling the hydrologic effects of roadside ditch networks on receiving waters. Journal of Hydrology, 2013, 486, 293-305.	2.3	32
51	Seasonal and Topographic Variations in Ecohydrological Separation Within a Small, Temperate, Snowâ€influenced Catchment. Water Resources Research, 2019, 55, 6417-6435.	1.7	32
52	Nutrient Cycling in Grassed Roadside Ditches and Lawns in a Suburban Watershed. Journal of Environmental Quality, 2016, 45, 1901-1909.	1.0	31
53	Pore-Scale Quantification of Colloid Transport in Saturated Porous Media. Environmental Science & Technology, 2008, 42, 517-523.	4.6	30
54	Controls Influencing the Treatment of Excess Agricultural Nitrate with Denitrifying Bioreactors. Journal of Environmental Quality, 2016, 45, 772-778.	1.0	30

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55	Roadside ditches as conduits of fecal indicator organisms and sediment: Implications for water quality management. Journal of Environmental Management, 2013, 128, 1050-1059.	3.8	29
56	Influence of transient flooding on methane fluxes from subtropical pastures. Journal of Geophysical Research G: Biogeosciences, 2016, 121, 965-977.	1.3	29
57	A case study investigating temporal factors that influence microplastic concentration in streams under different treatment regimes. Environmental Science and Pollution Research, 2019, 26, 21797-21807.	2.7	29
58	Impacts of disturbance on soil properties in a dry tropical forest in Southern India. Ecohydrology, 2008, 1, 161-175.	1.1	27
59	Terrestrial pyrogenic carbon export to fluvial ecosystems: Lessons learned from the White Nile watershed of East Africa. Global Biogeochemical Cycles, 2015, 29, 1911-1928.	1.9	27
60	Roadside soils show low plant available zinc and copper concentrations. Environmental Pollution, 2016, 209, 30-37.	3.7	27
61	New Paradigm for Sizing Riparian Buffers to Reduce Risks of Polluted Storm Water: Practical Synthesis. Journal of Irrigation and Drainage Engineering - ASCE, 2009, 135, 200-209.	0.6	26
62	Identifying dissolved phosphorus source areas and predicting transport from an urban watershed using distributed hydrologic modeling. Water Resources Research, 2007, 43, .	1.7	25
63	Modeling climate change impacts on the thermal dynamics of polymictic Oneida Lake, New York, United States. Ecological Modelling, 2015, 300, 1-11.	1.2	24
64	Hydrologic and Biogeochemical Drivers of Riparian Denitrification in an Agricultural Watershed. Water, Air, and Soil Pollution, 2015, 226, 1.	1.1	24
65	Assessing denitrification from seasonally saturated soils in an agricultural landscape: A farm-scale mass-balance approach. Agriculture, Ecosystems and Environment, 2014, 189, 60-69.	2.5	23
66	Possible Increases in Flood Frequency Due to the Loss of Eastern Hemlock in the Northeastern United States: Observational Insights and Predicted Impacts. Water Resources Research, 2019, 55, 5342-5359.	1.7	23
67	Enhancement of seepage and lateral preferential flow by biopores on hillslopes. Biologia (Poland), 2006, 61, S225-S228.	0.8	22
68	A simple concept for calibrating runoff thresholds in quasiâ€distributed variable source area watershed models. Hydrological Processes, 2011, 25, 3131-3143.	1.1	22
69	Stream water nutrient and organic carbon exports from tropical headwater catchments at a soil degradation gradient. Nutrient Cycling in Agroecosystems, 2013, 95, 145-158.	1.1	22
70	Simple Model of Changes in Stream Chloride Levels Attributable to Road Salt Applications. Journal of Environmental Engineering, ASCE, 2012, 138, 112-118.	0.7	21
71	A Simple Processâ€Based Snowmelt Routine to Model Spatially Distributed Snow Depth and Snowmelt in the SWAT Model¹. Journal of the American Water Resources Association, 2012, 48, 1151-1161.	1.0	21
72	Apportionment of bioavailable phosphorus loads entering Cayuga Lake, New York. Journal of the American Water Resources Association, 2016, 52, 31-47.	1.0	21

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73	Critical Review of Polyphosphate and Polyphosphate Accumulating Organisms for Agricultural Water Quality Management. Environmental Science & Technology, 2021, 55, 2722-2742.	4.6	21
74	Ecosystem impacts of disturbance in a dry tropical forest in southern India. Ecohydrology, 2008, 1, 149-160.	1.1	20
75	Do Energyâ€Based <scp>PET</scp> Models Require More Input Data than Temperatureâ€Based Models? â€" An Evaluation at Four Humid FluxNet Sites. Journal of the American Water Resources Association, 2014, 50, 497-508.	1.0	20
76	Critical rainfall statistics for predicting watershed flood responses: rethinking the design storm concept. Hydrological Processes, 2016, 30, 3788-3803.	1.1	20
77	Shortâ€term Forecasting Tools for Agricultural Nutrient Management. Journal of Environmental Quality, 2017, 46, 1257-1269.	1.0	20
78	Hydrology of the Brooklyn Grange, an urban rooftop farm. Urban Ecosystems, 2018, 21, 673-689.	1.1	20
79	Methane and nitrous oxide cycling microbial communities in soils above septic leach fields: Abundances with depth and correlations with net surface emissions. Science of the Total Environment, 2018, 640-641, 429-441.	3.9	20
80	Hudson River juvenile Blueback herring avoid ingesting microplastics. Marine Pollution Bulletin, 2019, 146, 935-939.	2.3	20
81	Compost Quality Recommendations for Remediating Urban Soils. International Journal of Environmental Research and Public Health, 2019, 16, 3191.	1.2	20
82	Environmental flows in the context of unconventional natural gas development in the <scp>M</scp>arcellus <scp>S</scp>hale. Ecological Applications, 2017, 27, 37-55.	1.8	19
83	Denitrifying bioreactor response during storm events. Agricultural Water Management, 2019, 213, 1109-1115.	2.4	19
84	Incorporating Variable Source Area Hydrology into a Spatially Distributed Direct Runoff Model¹. Journal of the American Water Resources Association, 2012, 48, 43-60.	1.0	18
85	Fabrication, detection, and analysis of DNA-labeled PLGA particles for environmental transport studies. Journal of Colloid and Interface Science, 2018, 526, 207-219.	5.0	18
86	Field Test of the Variable Source Area Interpretation of the Curve Number Rainfall-Runoff Equation. Journal of Irrigation and Drainage Engineering - ASCE, 2012, 138, 235-244.	0.6	17
87	<scp>SWAT</scp>model: A Multiâ€Operating System, Multiâ€Platform <scp>SWAT</scp> Model Package in R. Journal of the American Water Resources Association, 2014, 50, 1349-1353.	1.0	17
88	Potential Predictability of Regional Precipitation and Discharge Extremes Using Synoptic-Scale Climate Information via Machine Learning: An Evaluation for the Eastern Continental United States. Journal of Hydrometeorology, 2019, 20, 883-900.	0.7	17
89	Particle tracer transport in a sloping soil lysimeter under periodic, steady state conditions. Journal of Hydrology, 2019, 569, 61-76.	2.3	17
90	Reassessing the relationship between landscape alteration and aquatic ecosystem degradation from a hydrologically sensitive area perspective. Science of the Total Environment, 2019, 650, 2850-2862.	3.9	17

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91	Estimating dominant runoff modes across the conterminous United States. Hydrological Processes, 2018, 32, 3881-3890.	1.1	16
92	Explaining and modeling the concentration and loading of Escherichia coli in a streamâ€"A case study. Science of the Total Environment, 2018, 635, 1426-1435.	3.9	15
93	Including Source-Specific Phosphorus Mobility in a Nonpoint Source Pollution Model for Agricultural Watersheds. Journal of Environmental Engineering, ASCE, 2009, 135, 25-35.	0.7	14
94	Improving risk estimates of runoff producing areas: Formulating variable source areas as a bivariate process. Journal of Environmental Management, 2014, 137, 146-156.	3.8	14
95	Hydrologic State Influence on Riverine Flood Discharge for a Small Temperate Watershed (Fall Creek,) Tj ETQq1 1 0.784314 rgBT /Ove 2017, 18, 431-449.	0.7	14
96	Streamlined ecoâ€•engineering approach helps define environmental flows for tropical Andean headwaters. Freshwater Biology, 2019, 64, 1315-1325.	1.2	14
97	Title is missing!. Biogeochemistry, 2001, 55, 293-310.	1.7	13
98	Transport of lead and diesel fuel through a peat soil near Juneau, AK: a pilot study. Journal of Contaminant Hydrology, 2004, 74, 1-18.	1.6	13
99	Modeling Potential Water Resource Impacts of Mediterranean Tourism in a Changing Climate. Environmental Modeling and Assessment, 2015, 20, 117-128.	1.2	13
100	Perennial Grass Bioenergy Cropping on Wet Marginal Land: Impacts on Soil Properties, Soil Organic Carbon, and Biomass During Initial Establishment. Bioenergy Research, 2018, 11, 262-276.	2.2	13
101	Characteristics of impervious surface and its effect on direct runoff: a case study in a rapidly urbanized area. Water Science and Technology: Water Supply, 2019, 19, 1885-1891.	1.0	13
102	The heavy metal budget of an urban rooftop farm. Science of the Total Environment, 2019, 660, 115-125.	3.9	13
103	Closure to â€œSimple Estimation of Prevalence of Hortonian Flow in New York City Watershedsâ€• by M. Todd Walter, Vishal K. Mehta, Alexis M. Marrone, Jan Boll, Pierre GÃ©rard-Marchant, Tammo S. Steenhuis, and Michael F. Walter. Journal of Hydrologic Engineering - ASCE, 2005, 10, 169-170.	0.8	12
104	Methane Emission in a Specific Riparian-Zone Sediment Decreased with Bioelectrochemical Manipulation and Corresponded to the Microbial Community Dynamics. Frontiers in Microbiology, 2015, 6, 1523.	1.5	12
105	Release of Escherichia coli under raindrop impact: The role of clay. Advances in Water Resources, 2018, 111, 1-5.	1.7	12
106	Modeling Pollutant Release from a Surface Source during Rainfall Runoff. Journal of Environmental Quality, 2001, 30, 151-159.	1.0	11
107	Relating hydrogeomorphic properties to stream buffering chemistry in the Neversink River watershed, New York State, USA. Hydrological Processes, 2010, 24, 3759-3771.	1.1	11
108	Modeling the release of Escherichia coli from soil into overland flow under raindrop impact. Advances in Water Resources, 2017, 106, 144-153.	1.7	11

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109	Landscape Scale Variation in Nitrous Oxide Flux Along a Typical Northeastern US Topographic Gradient in the Early Summer. Water, Air, and Soil Pollution, 2012, 223, 1571-1580.	1.1	10
110	Tracing Septic Pollution Sources Using Synthetic DNA Tracers: Proof of Concept. Air, Soil and Water Research, 2019, 12, 117862211986379.	1.2	10
111	Macroplastic accumulation in roadside ditches of New York State's Finger Lakes region (USA) across land uses and the COVID-19 pandemic. Journal of Environmental Management, 2021, 298, 113524.	3.8	10
112	Real-Time Forecast of Hydrologically Sensitive Areas in the Salmon Creek Watershed, New York State, Using an Online Prediction Tool. Water (Switzerland), 2013, 5, 917-944.	1.2	9
113	Estimating long-term changes in actual evapotranspiration and water storage using a one-parameter model. Journal of Hydrology, 2014, 519, 2312-2317.	2.3	9
114	Does Population Affect the Location of Flash Flood Reports?. Journal of Applied Meteorology and Climatology, 2016, 55, 1953-1963.	0.6	9
115	Topographic wetness guided dairy manure applications to reduce stream nutrient loads in Central New York, USA. Journal of Hydrology: Regional Studies, 2017, 14, 67-82.	1.0	9
116	Modeling denitrification in a changing climate. Sustainability of Water Quality and Ecology, 2015, 5, 64-76.	2.0	7
117	Designing Ecoâ€Friendly Water Intake Portfolios in a Tropical Andean Stream Network. Water Resources Research, 2019, 55, 6946-6967.	1.7	7
118	Farmer perceptions of dairy farm antibiotic use and transport pathways as determinants of contaminant loads to the environment. Journal of Environmental Management, 2021, 281, 111880.	3.8	7
119	Reducing Stormwater Nitrogen with Denitrifying Bioreactors: Florida Case Study. Journal of Sustainable Water in the Built Environment, 2018, 4, 06018002.	0.9	6
120	What You Net Depends on if You Grab: A Meta-analysis of Sampling Methodâ€™s Impact on Measured Aquatic Microplastic Concentration. Environmental Science & Technology, 2021, 55, 12930-12942.	4.6	6
121	Labile carbon release from oxicâ€“anoxic cycling in woodchip bioreactors enhances nitrate removal without increasing nitrous oxide accumulation. Environmental Science: Water Research and Technology, 2021, 7, 2357-2371.	1.2	6
122	Temperature dependence of daily respiration and reaeration rates during baseflow conditions in a northeastern U.S. stream. Journal of Hydrology: Regional Studies, 2018, 19, 250-264.	1.0	5
123	A whole-ecosystem experiment reveals flow-induced shifts in a stream community. Communications Biology, 2022, 5, 420.	2.0	5
124	Comment on â€˜Shaw SB, Riha S. 2011. Assessing temperatureâ€based PET equations under a changing climate in temperate, deciduous forests. Hydrological Processes 25: 1466â€“1478â€™. Hydrological Processes, 2013, 27, 3511-3515.	1.1	4
125	Comparing Watershed Scale P Losses from Manure Spreading in Temperate Climates across Mechanistic Soil P Models. Journal of Hydrologic Engineering - ASCE, 2019, 24, 04019009.	0.8	4
126	Internet mapping tools make scientific applications easy. Eos, 2006, 87, 386.	0.1	3

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127	Impacts of Coal Resource Development on Surface Water Quality in a Multiâ€jurisdictional Watershed in the Western United States. Journal of Contemporary Water Research and Education, 2020, 169, 79-91.	0.7	3
128	Rapid Remote Assessment of Culvert Flooding Risk. Journal of Sustainable Water in the Built Environment, 2020, 6, .	0.9	3
129	Modeling denitrification in an agricultural catchment in Central New York. Sustainability of Water Quality and Ecology, 2015, 5, 49-63.	2.0	2
130	Seasonal dynamics and exports of elements from a firstâ€•order stream to a large inland lake in Michigan. Hydrological Processes, 2019, 33, 1476-1491.	1.1	2
131	Comparing Greenhouse Gas Fluxes from Passive Urban Stormwater Management to Conventional Wastewater Treatment. Journal of Sustainable Water in the Built Environment, 2019, 5, 04018017.	0.9	2
132	Simulation and statistical modelling approaches to investigate hydrologic regime transformations following Eastern hemlock decline. Hydrological Processes, 2020, 34, 1198-1212.	1.1	2
133	Rainfall induced chemical transport from soil to runoff: theory and experiments. Journal of Hydrology, 2004, 295, 291-291.	2.3	1
134	Vadose zone dynamics and the legacy of Wilford R. Gardner. Transport in Porous Media, 2007, 68, 1-4.	1.2	1
135	A Simple Metric to Predict Stream Water Quality from Storm Runoff in an Urban Watershed. Journal of Environmental Quality, 2010, 39, 1338-1348.	1.0	1
136	Absence of genetic selection in a pathogenic Escherichia coli strain exposed to the manure-amended soil environment. PLoS ONE, 2018, 13, e0208346.	1.1	1
137	Closure to â€œSimple Snowdrift Model for Distributed Hydrological Modelingâ€•by M. Todd Walter, Donald K. McCool, Larry G. King, Myron Molnau, and Gaylon S. Campbell. Journal of Hydrologic Engineering - ASCE, 2005, 10, 524-525.	0.8	0
138	Hammond Hill Research Catchment: Supporting hydrologic investigations of rooting zone and vegetation water dynamics under climate change. Hydrological Processes, 2020, 34, 4755-4758.	1.1	0
139	Dairy farmer perceptions of antibiotic transport and usage in animal agriculture dataset. Data in Brief, 2021, 35, 106785.	0.5	0
140	Roadside ditch macroplastic and other litter dataset in the Finger lakes region across land uses and COVID-19 pandemic. Data in Brief, 2021, 38, 107425.	0.5	0