

# Ryan T Bailey

## List of Publications by Year in descending order

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Version: 2024-02-01

72  
papers

1,710  
citations

279487

23  
h-index

344852

36  
g-index

73  
all docs

73  
docs citations

73  
times ranked

1328  
citing authors

#	ARTICLE	IF	CITATIONS
1	Evaluating the contribution of subsurface drainage to watershed water yield using SWAT+ with groundwater modeling. <i>Science of the Total Environment</i> , 2022, 802, 149962.	3.9	20
2	Simulating the effect of subsurface tile drainage on watershed salinity using SWAT. <i>Agricultural Water Management</i> , 2022, 262, 107431.	2.4	5
3	Investigating the controlling factors on salinity in soil, groundwater, and river water in a semi-arid agricultural watershed using SWAT-Salt. <i>Science of the Total Environment</i> , 2022, 810, 152293.	3.9	15
4	An improved calibration technique to address high dimensionality and non-linearity in integrated groundwater and surface water models. <i>Environmental Modelling and Software</i> , 2022, 149, 105312.	1.9	9
5	Groundwater-surface water interactions at wetland interface: Advancement in catchment system modeling. <i>Environmental Modelling and Software</i> , 2022, 152, 105407.	1.9	9
6	Simulating salinity transport in High-Desert landscapes using APEX-MODFLOW-Salt. <i>Journal of Hydrology</i> , 2022, 610, 127873.	2.3	4
7	Assessing the Impact of Artificial Recharge Ponds on Hydrological Fluxes in an Irrigated Streamâ€“Aquifer System. <i>Hydrology</i> , 2022, 9, 91.	1.3	2
8	Using DSSAT-MODFLOW to determine the controls of groundwater storage and crop yield in groundwater-based irrigated regions. <i>Journal of Hydrology</i> , 2022, 612, 128161.	2.3	6
9	Evaluating nitrate and phosphorus remediation in intensively irrigated stream-aquifer systems using a coupled flow and reactive transport model. <i>Journal of Hydrology</i> , 2021, 598, 126304.	2.3	21
10	Improving integrated surface waterâ€“groundwater modelling with groundwater extraction for water management. <i>Hydrological Sciences Journal</i> , 2021, 66, 1513-1530.	1.2	3
11	Appraising climate change impacts on future water resources and agricultural productivity in agro-urban river basins. <i>Science of the Total Environment</i> , 2021, 788, 147717.	3.9	28
12	Evaluating crop-soil-water dynamics in waterlogged areas using a coupled groundwater-agronomic model. <i>Environmental Modelling and Software</i> , 2021, 143, 105130.	1.9	11
13	APEX-MODFLOW: A New integrated model to simulate hydrological processes in watershed systems. <i>Environmental Modelling and Software</i> , 2021, 143, 105093.	1.9	11
14	Using nutrient transport data to characterize and identify the presence of surface inlets in regions with subsurface drainage. <i>Journal of Environmental Quality</i> , 2021, 50, 396-404.	1.0	2
15	Spatioâ€“temporal patterns of the interaction between groundwater and surface water in plains. <i>Hydrological Processes</i> , 2020, 34, 1371-1392.	1.1	34
16	Estimating groundwater recharge for a freshwater lens in an arid region: Formative and stability assessment. <i>Hydrological Processes</i> , 2020, 34, 1063-1080.	1.1	7
17	Assessing the impacts of groundwater abstractions on flow regime and stream biota: Combining SWAT-MODFLOW with flow-biota empirical models. <i>Science of the Total Environment</i> , 2020, 706, 135702.	3.9	23
18	Quantifying the effects of climate change on hydrological regime and stream biota in a groundwater-dominated catchment: A modelling approach combining SWAT-MODFLOW with flow-biota empirical models. <i>Science of the Total Environment</i> , 2020, 745, 140933.	3.9	24

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19	A New Physically-Based Spatially-Distributed Groundwater Flow Module for SWAT+. Hydrology, 2020, 7, 75.	1.3	19
20	Assessing controls on selenium fate and transport in watersheds using the SWAT model. Science of the Total Environment, 2020, 738, 140318.	3.9	13
21	DSSAT-MODFLOW: A new modeling framework for exploring groundwater conservation strategies in irrigated areas. Agricultural Water Management, 2020, 232, 106033.	2.4	31
22	Analyzing the Effects of Groundwater Pumping on an Urban Stream-Aquifer System. Journal of the American Water Resources Association, 2020, 56, 310-322.	1.0	14
23	Enhancing SWAT+ simulation of groundwater flow and groundwater-surface water interactions using MODFLOW routines. Environmental Modelling and Software, 2020, 126, 104660.	1.9	30
24	Quantifying the streamflow response to groundwater abstractions for irrigation or drinking water at catchment scale using SWAT and SWAT+MODFLOW. Environmental Sciences Europe, 2020, 32, .	2.6	28
25	Comprehensive simulation of nitrate transport in coupled surface-subsurface hydrologic systems using the linked SWAT-MODFLOW-RT3D model. Environmental Modelling and Software, 2019, 122, 104242.	1.9	62
26	Review: Revisiting the Theis solution derivation to enhance understanding and application. Hydrogeology Journal, 2019, 27, 55-60.	0.9	4
27	Modelling potential groundwater recharge in the Limpopo River Basin with SWAT-MODFLOW. Groundwater for Sustainable Development, 2019, 9, 100260.	2.3	22
28	Assessment of System Responses in Intensively Irrigated Stream-Aquifer Systems Using SWAT-MODFLOW. Water (Switzerland), 2019, 11, 1576.	1.2	30
29	A salinity module for SWAT to simulate salt ion fate and transport at the watershed scale. Hydrology and Earth System Sciences, 2019, 23, 3155-3174.	1.9	24
30	Comparison of abstraction scenarios simulated by SWAT and SWAT-MODFLOW. Hydrological Sciences Journal, 2019, 64, 434-454.	1.2	57
31	Featured Series Introduction: Optimizing Ogallala Aquifer Water Use to Sustain Food Systems. Journal of the American Water Resources Association, 2019, 55, 3-5.	1.0	7
32	Coupled SWAT-MODFLOW model for large-scale mixed agro-urban river basins. Environmental Modelling and Software, 2019, 115, 200-210.	1.9	88
33	A salinity reactive transport and equilibrium chemistry model for regional-scale agricultural groundwater systems. Journal of Hydrology, 2019, 572, 274-293.	2.3	27
34	A Modeling Approach for Assessing Groundwater Resources of a Large Coral Island under Future Climate and Population Conditions: Gan Island, Maldives. Water (Switzerland), 2019, 11, 1963.	1.2	3
35	Quantifying threats to groundwater resources in the Republic of Maldives Part I: Future rainfall patterns and sea-level rise. Hydrological Processes, 2018, 32, 1137-1153.	1.1	11
36	Quantifying threats to groundwater resources in the Republic of Maldives Part II: Recovery from tsunami marine overwash events. Hydrological Processes, 2018, 32, 1154-1165.	1.1	10

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37	Simulating selenium and nitrogen fate and transport in coupled stream-aquifer systems of irrigated regions. <i>Journal of Hydrology</i> , 2018, 560, 512-529.	2.3	27
38	Evaluating best management practices to lower selenium and nitrate in groundwater and streams in an irrigated river valley using a calibrated fate and reactive transport model. <i>Journal of Hydrology</i> , 2018, 566, 299-312.	2.3	19
39	Using the SWAT Model in Intensively Managed Irrigated Watersheds: Model Modification and Application. <i>Journal of Hydrologic Engineering - ASCE</i> , 2018, 23, .	0.8	25
40	Sustainability of rainwater catchment systems for small island communities. <i>Journal of Hydrology</i> , 2018, 557, 137-146.	2.3	19
41	Assimilation of historical head data to estimate spatial distributions of stream bed and aquifer hydraulic conductivity fields. <i>Hydrological Processes</i> , 2017, 31, 1527-1538.	1.1	3
42	SWATMODâ€Prep: Graphical User Interface for Preparing Coupled SWATâ€MODFLOW Simulations. <i>Journal of the American Water Resources Association</i> , 2017, 53, 400-410.	1.0	47
43	Geohydrologic Factors Governing Atoll Island Groundwater Resources. <i>Journal of Hydrologic Engineering - ASCE</i> , 2017, 22, .	0.8	12
44	Assessing groundwater availability of the Maldives under future climate conditions. <i>Hydrological Processes</i> , 2017, 31, 3334-3349.	1.1	8
45	Stream-aquifer and in-stream processes affecting nitrogen along a major river and contributing tributary. <i>Journal of Contaminant Hydrology</i> , 2017, 199, 24-35.	1.6	13
46	Modeling sulfur cycling and sulfate reactive transport in an agricultural groundwater system. <i>Agricultural Water Management</i> , 2017, 185, 78-92.	2.4	7
47	Review: Selenium contamination, fate, and reactive transport in groundwater in relation to human health. <i>Hydrogeology Journal</i> , 2017, 25, 1191-1217.	0.9	57
48	Method for estimating available groundwater volume of small coral islands. <i>Hydrological Sciences Journal</i> , 2017, 62, 2381-2392.	1.2	7
49	Understanding Climateâ€Hydrologicâ€Human Interactions to Guide Groundwater Model Development for Southern High Plains. <i>Journal of Contemporary Water Research and Education</i> , 2017, 162, 79-99.	0.7	9
50	Estimating the Impact of Drought on Groundwater Resources of the Marshall Islands. <i>Water (Switzerland)</i> , 2017, 9, 41.	1.2	21
51	Assessing regionalâ€scale spatioâ€temporal patterns of groundwaterâ€surface water interactions using a coupled SWATâ€MODFLOW model. <i>Hydrological Processes</i> , 2016, 30, 4420-4433.	1.1	183
52	Institutional Constraints on Costâ€Effective Water Management: Selenium Contamination in Colorado's Lower Arkansas River Valley. <i>Journal of the American Water Resources Association</i> , 2016, 52, 1420-1432.	1.0	4
53	Predicting Future Groundwater Resources of Coral Atoll Islands. <i>Hydrological Processes</i> , 2016, 30, 2092-2105.	1.1	25
54	Sustainable Rainwater Catchment Systems for Micronesian Atoll Communities. <i>Journal of the American Water Resources Association</i> , 2015, 51, 185-199.	1.0	8

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55	Quantifying transient post-overwash aquifer recovery for atoll islands in the Western Pacific. <i>Hydrological Processes</i> , 2015, 29, 4470-4482.	1.1	16
56	Assessing best management practices for remediation of selenium loading in groundwater to streams in an irrigated region. <i>Journal of Hydrology</i> , 2015, 521, 341-359.	2.3	17
57	Assessing the effectiveness of land and water management practices on nonpoint source nitrate levels in an alluvial stream-aquifer system. <i>Journal of Contaminant Hydrology</i> , 2015, 179, 102-115.	1.6	20
58	Multisite Assessment of Hydrologic Processes in Snow-Dominated Mountainous River Basins in Colorado Using a Watershed Model. <i>Journal of Hydrologic Engineering - ASCE</i> , 2015, 20, .	0.8	10
59	Estimating Current and Future Groundwater Resources of the Maldives. <i>Journal of the American Water Resources Association</i> , 2015, 51, 112-122.	1.0	16
60	Effects of Marine Overwash for Atoll Aquifers: Environmental and Human Factors. <i>Ground Water</i> , 2014, 52, 694-704.	0.7	25
61	Simulating reactive transport of selenium coupled with nitrogen in a regional-scale irrigated groundwater system. <i>Journal of Hydrology</i> , 2014, 515, 29-46.	2.3	32
62	Spatial and temporal variability of in-stream water quality parameter influence on dissolved oxygen and nitrate within a regional stream network. <i>Ecological Modelling</i> , 2014, 277, 87-96.	1.2	34
63	Estimating transient freshwater lens dynamics for atoll islands of the Maldives. <i>Journal of Hydrology</i> , 2014, 515, 247-256.	2.3	18
64	Modeling Variably Saturated Subsurface Solute Transport with MODFLOW-UZF and MT3DMS. <i>Ground Water</i> , 2013, 51, 237-251.	0.7	30
65	Simulating variably-saturated reactive transport of selenium and nitrogen in agricultural groundwater systems. <i>Journal of Contaminant Hydrology</i> , 2013, 149, 27-45.	1.6	24
66	Modeling Variably Saturated Multispecies Reactive Groundwater Solute Transport with MODFLOW-UZF and RT3D. <i>Ground Water</i> , 2013, 51, 752-761.	0.7	48
67	Estimating spatially-variable rate constants of denitrification in irrigated agricultural groundwater systems using an Ensemble Smoother. <i>Journal of Hydrology</i> , 2012, 468-469, 188-202.	2.3	13
68	Estimating geostatistical parameters and spatially-variable hydraulic conductivity within a catchment system using an ensemble smoother. <i>Hydrology and Earth System Sciences</i> , 2012, 16, 287-304.	1.9	34
69	The Influence of Nitrate on Selenium in Irrigated Agricultural Groundwater Systems. <i>Journal of Environmental Quality</i> , 2012, 41, 783-792.	1.0	42
70	Estimating spatially-variable first-order rate constants in groundwater reactive transport systems. <i>Journal of Contaminant Hydrology</i> , 2011, 122, 104-121.	1.6	14
71	Estimating the Ground Water Resources of Atoll Islands. <i>Water (Switzerland)</i> , 2010, 2, 1-27.	1.2	49
72	Assessing Selenium Contamination in the Irrigated Stream-Aquifer System of the Arkansas River, Colorado. <i>Journal of Environmental Quality</i> , 2009, 38, 2344-2356.	1.0	59