Donald E Weller

List of Publications by Year
in descending order

75 papers	5,331 citations	87723 38 h-index	102304 66 g-index
81 all docs	81 docs citations	81 times ranked	4900 citing authors

#	Article	IF	Citations
1	SPATIAL CONSIDERATIONS FOR LINKING WATERSHED LAND COVER TO ECOLOGICAL INDICATORS IN STREAMS. , 2005, 15, 137-153.		431
2	A Reevaluation of the â€3/2 Power Rule of Plant Selfâ€Thinning. Ecological Monographs, 1987, 57, 23-43.	2.4	424
3	Relating nutrient discharges from watersheds to land use and streamflow variability. Water Resources Research, 1997, 33, 2579-2590.	1.7	289
4	Nutrient Interception by a Riparian Forest Receiving Inputs from Adjacent Cropland. Journal of Environmental Quality, 1993, 22, 467-473.	1.0	258
5	Human Contributions to Terrestrial Nitrogen Flux. BioScience, 1996, 46, 655-664.	2.2	201
6	Effects of Agriculture on Discharges of Nutrients from Coastal Plain Watersheds of Chesapeake Bay. Journal of Environmental Quality, 1997, 26, 836-848.	1.0	201
7	Long-term nutrient reductions lead to the unprecedented recovery of a temperate coastal region. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 3658-3662.	3.3	199
8	Nutrient Flux in a Landscape: Effects of Coastal Land Use and Terrestrial Community Mosaic on Nutrient Transport to Coastal Waters. Estuaries and Coasts, 1992, 15, 431.	1.7	169
9	Self-Thinning Exponent Correlated with Allometric Measures of Plant Geometry. Ecology, 1987, 68, 813-821.	1.5	143
10	How novel is too novel? Stream community thresholds at exceptionally low levels of catchment urbanization. , 2011, 21, 1659-1678.		136
11	Net anthropogenic phosphorus inputs: spatial and temporal variability in the Chesapeake Bay region. Biogeochemistry, 2008, 88, 285-304.	1.7	125
12	Improved methods for quantifying potential nutrient interception by riparian buffers. Landscape Ecology, 2006, 21, 1327-1345.	1.9	98
13	Transport of nitrogen and phosphorus from rhode river watersheds during storm events. Water Resources Research, 1999, 35, 2513-2521.	1.7	96
14	HEURISTIC MODELS FOR MATERIAL DISCHARGE FROM LANDSCAPES WITH RIPARIAN BUFFERS. , 1998, 8, 1156-1169.		86
15	Anthropogenic disturbance and streams: land use and land-use change affect stream ecosystems via multiple pathways. Freshwater Biology, 2011, 56, 611-626.	1.2	84
16	Will the Real Self-Thinning Rule Please Stand Up?--A Reply to Osawa and Sugita. Ecology, 1990, 71, 1204-1207.	1.5	82
17	Nutrients and chlorophyll at the interface of a watershed and an estuary. Limnology and Oceanography, 1991, 36, 251-267.	1.6	82
18	NONPOINT SOURCE DISCHARGES OF NUTRIENTS FROM PIEDMONT WATERSHEDS OF CHESAPEAKE BAY. Journal of the American Water Resources Association, 1997, 33, 631-645.	1.0	81

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19	Accuracy and Precision of Tidal Wetland Soil Carbon Mapping in the Conterminous United States. Scientific Reports, 2018, 8, 9478.	1.6	80
20	Sources of nutrient inputs to the Patuxent River estuary. Estuaries and Coasts, 2003, 26, 226-243.	1.7	79
21	Beaver pond biogeochemical effects in the Maryland Coastal Plain. Biogeochemistry, 2000, 49, 217-239.	1.7	78
22	Effects of land-use change on nutrient discharges from the Patuxent River watershed. Estuaries and Coasts, 2003, 26, 244-266.	1.7	75
23	The Interspecific Size-Density Relationship Among Crowded Plant Stands and Its Implications for the -3/2 Power Rule of Self-Thinning. American Naturalist, 1989, 133, 20-41.	1.0	71
24	Title is missing!. Water, Air, and Soil Pollution, 2001, 128, 139-159.	1.1	70
25	EFFECTS OF LAND COVER AND GEOLOGY ON STREAM CHEMISTRY IN WATERSHEDS OF CHESAPEAKE BAY. Journal of the American Water Resources Association, 2000, 36, 1349-1365.	1.0	68
26	Submersed Aquatic Vegetation in Chesapeake Bay: Sentinel Species in a Changing World. BioScience, 2017, 67, 698-712.	2.2	68
27	Temporal variability of optical properties in a shallow, eutrophic estuary: Seasonal and interannual variability. Estuarine, Coastal and Shelf Science, 2005, 64, 156-170.	0.9	63
28	Effects of riparian buffers on nitrate concentrations in watershed discharges: new models and management implications. , 2011, 21, 1679-1695.		60
29	Legacy Effects in Material Flux: Structural Catchment Changes Predate Long-Term Studies. BioScience, 2012, 62, 575-584.	2.2	59
30	Effects of stream map resolution on measures of riparian buffer distribution and nutrient retention potential. Landscape Ecology, 2007, 22, 973-992.	1.9	55
31	Applying additive modelling and gradient boosting to assess the effects of watershed and reach characteristics on riverine assemblages. Methods in Ecology and Evolution, 2012, 3, 116-128.	2.2	55
32	Watershed Land Use Is Strongly Linked to PCBs in White Perch in Chesapeake Bay Subestuaries. Environmental Science & Technology, 2004, 38, 6546-6552.	4.6	53
33	Empirical Models Based on the Universal Soil Loss Equation Fail to Predict Sediment Discharges from Chesapeake Bay Catchments. Journal of Environmental Quality, 2008, 37, 79-89.	1.0	53
34	Requirement of low oxidation-reduction potential for photosynthesis in a blue-green alga (Phormidium sp.). Archives of Microbiology, 1975, 104, 7-13.	1.0	51
35	Watershed model calibration using multi-objective optimization and multi-site averaging. Journal of Hydrology, 2010, 380, 277-288.	2.3	51
36	Title is missing!. Biogeochemistry, 2000, 49, 143-173.	1.7	49

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37	Comparison of Automated Watershed Delineations. Photogrammetric Engineering and Remote Sensing, 2006, 72, 159-168.	0.3	49
38	Temporal variation in precipitation chemistry on the shore of the Chesapeake Bay. Water, Air, and Soil Pollution, 1995, 83, 263-284.	1.1	45
39	Urbanization reduces and homogenizes trait diversity in stream macroinvertebrate communities. Ecological Applications, 2017, 27, 2428-2442.	1.8	45
40	The Self-Thinning Rule: Dead or Unsupported?--A Reply to Lonsdale. Ecology, 1991, 72, 747-750.	1.5	44
41	The Relationship Between Shoreline Armoring and Adjacent Submerged Aquatic Vegetation in Chesapeake Bay and Nearby Atlantic Coastal Bays. Estuaries and Coasts, 2016, 39, 158-170.	1.0	44
42	Effects of watershed and estuarine characteristics on the abundance of submerged aquatic vegetation in Chesapeake Bay subestuaries. Estuaries and Coasts, 2007, 30, 840-854.	1.0	41
43	Effects of Shoreline Alteration and Other Stressors on Submerged Aquatic Vegetation in Subestuaries of Chesapeake Bay and the Mid-Atlantic Coastal Bays. Estuaries and Coasts, 2014, 37, 1516-1531.	1.0	40
44	Uncertainty in United States coastal wetland greenhouse gas inventorying. Environmental Research Letters, 2018, 13, 115005.	2.2	40
45	Comparing functional assessments of wetlands to measurements of soil characteristics and nitrogen processing. Wetlands, 2007, 27, 479-497.	0.7	36
46	Denitrification in surface soils of a riparian forest: Effects of water, nitrate and sucrose additions. Soil Biology and Biochemistry, 1998, 30, 833-843.	4.2	35
47	Cropland Riparian Buffers throughout Chesapeake Bay Watershed: Spatial Patterns and Effects on Nitrate Loads Delivered to Streams. Journal of the American Water Resources Association, 2014, 50, 696-712.	1.0	33
48	Combining HGM and EMAP procedures to assess wetlands at the watershed scale â€" status of flats and non-tidal riverine wetlands in the Nanticoke River watershed, Delaware and Maryland (USA). Wetlands, 2007, 27, 462-478.	0.7	32
49	Classifying the biological condition of small streams: an example using benthic macroinvertebrates. Journal of the North American Benthological Society, 2009, 28, 869-884.	3.0	31
50	Effects of Precipitation and Air Temperature on Phosphorus Fluxes from Rhode River Watersheds. Journal of Environmental Quality, 1999, 28, 144-154.	1.0	30
51	The Chesapeake Bay program modeling system: Overview and recommendations for future development. Ecological Modelling, 2021, 456, 109635.	1.2	30
52	Precipitation Effects on Sediment and Associated Nutrient Discharges from Rhode River Watersheds. Journal of Environmental Quality, 1999, 28, 1897-1907.	1.0	26
53	Landscape indicators of wetland condition in the Nanticoke River watershed, Maryland and Delaware, USA. Wetlands, 2007, 27, 498-514.	0.7	26
54	Geoadditive regression modeling of stream biological condition. Environmental and Ecological Statistics, 2011, 18, 709-733.	1.9	26

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55	Local and regional disturbances associated with the invasion of Chesapeake Bay marshes by the common reed Phragmites australis. Biological Invasions, 2016, 18, 2661-2677.	1.2	26
56	Impacts of Coastal Land Use and Shoreline Armoring on Estuarine Ecosystems: an Introduction to a Special Issue. Estuaries and Coasts, 2018, 41, 2-18.	1.0	26
57	Effects of Local Watershed Land Use on Water Quality in Mid-Atlantic Coastal Bays and Subestuaries of the Chesapeake Bay. Estuaries and Coasts, 2018, 41, 38-53.	1.0	25
58	Species Distribution Models of Freshwater Stream Fishes in Maryland and Their Implications for Management. Environmental Modeling and Assessment, 2013, 18, 1-12.	1.2	23
59	Linking the Abundance of Estuarine Fish and Crustaceans in Nearshore Waters to Shoreline Hardening and Land Cover. Estuaries and Coasts, 2017, 40, 1464-1486.	1.0	23
60	Interannual variation in submerged aquatic vegetation and its relationship to water quality in subestuaries of Chesapeake Bay. Marine Ecology - Progress Series, 2015, 537, 121-135.	0.9	23
61	Using Multiple Watershed Models to Predict Water, Nitrogen, and Phosphorus Discharges to the Patuxent Estuary¹. Journal of the American Water Resources Association, 2013, 49, 15-39.	1.0	21
62	Dissolved Silicate Dynamics of the Rhode River Watershed and Estuary. Estuaries and Coasts, 2000, 23, 188.	1.7	19
63	Chaotic Models as Representations of Ecological Systems. American Naturalist, 1982, 120, 259-263.	1.0	19
64	Effects of Precipitation and Air Temperature on Nitrogen Discharges from Rhode River Watersheds. Water, Air, and Soil Pollution, 1999, 115, 547-575.	1.1	18
65	Using multiple watershed models to assess the water quality impacts of alternate land development scenarios for a small community. Catena, 2017, 150, 87-99.	2.2	18
66	A Stream Network Model for Integrated Watershed Modeling. Environmental Modeling and Assessment, 2008, 13, 291-303.	1.2	16
67	Using Bayesian hierarchical models to better understand nitrate sources and sinks in agricultural watersheds. Water Research, 2016, 105, 527-539.	5.3	16
68	Land Use and Salinity Drive Changes in SAV Abundance and Community Composition. Estuaries and Coasts, 2018, 41, 85-100.	1.0	13
69	EFFECTS OF INTERANNUAL VARIATION OF PRECIPITATION ON STREAM DISCHARGE FROM RHODE RIVER SUBWATERSHEDS. Journal of the American Water Resources Association, 1999, 35, 73-82.	1.0	11
70	Rates of Heat Exchange in Largemouth Bass: Experiment and Model. Physiological Zoology, 1984, 57, 413-427.	1.5	10
71	Integrated Modular Modeling of Water and Nutrients From Point and Nonpoint Sources in the Patuxent River Watershed¹. Journal of the American Water Resources Association, 2008, 44, 700-723.	1.0	10
72	Inexpensive spot sampling provides unexpectedly effective indicators of watershed nitrogen status. Ecosphere, 2020, 11, e03224.	1.0	7

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73	Formation of Diphenyl Sulfoxide and Diphenyl Sulfide via the Aluminum Chlorideâ€“Facilitated Electrophilic Aromatic Substitution of Benzene with Thionyl Chloride, and a Novel Reduction of Sulfur (IV) to Sulfur (II). Phosphorus, Sulfur and Silicon and the Related Elements, 2010, 185, 2535-2542.	0.8	6
74	Long-term Annual Aerial Surveys of Submersed Aquatic Vegetation (SAV) Support Science, Management, and Restoration. Estuaries and Coasts, 2019, , 1.	1.0	5
75	Cross Media Inputs to Eastern US Watersheds and Their Significance to Estuarine Water Quality. Water Science and Technology, 1992, 26, 2675-2683.	1.2	5