

# Charles R Lane

## List of Publications by Year in descending order

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Version: 2024-02-01

58  
papers

3,109  
citations

147566

31  
h-index

161609

54  
g-index

58  
all docs

58  
docs citations

58  
times ranked

2620  
citing authors

#	ARTICLE	IF	CITATIONS
1	Do geographically isolated wetlands influence landscape functions?. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 1978-1986.	3.3	297
2	Geographically Isolated Wetlands are Important Biogeochemical Reactors on the Landscape. BioScience, 2015, 65, 408-418.	2.2	163
3	Decision-Tree, Rule-Based, and Random Forest Classification of High-Resolution Multispectral Imagery for Wetland Mapping and Inventory. Remote Sensing, 2018, 10, 580.	1.8	149
4	Enhancing protection for vulnerable waters. Nature Geoscience, 2017, 10, 809-815.	5.4	141
5	Hydrologic connectivity between geographically isolated wetlands and surface water systems: A review of select modeling methods. Environmental Modelling and Software, 2014, 53, 190-206.	1.9	137
6	Integrating LiDAR data and multi-temporal aerial imagery to map wetland inundation dynamics using Google Earth Engine. Remote Sensing of Environment, 2019, 228, 1-13.	4.6	108
7	FLORISTIC QUALITY INDICES FOR BIOTIC ASSESSMENT OF DEPRESSIONAL MARSH CONDITION IN FLORIDA. , 2004, 14, 784-794.		104
8	Integrating geographically isolated wetlands into land management decisions. Frontiers in Ecology and the Environment, 2017, 15, 319-327.	1.9	92
9	Depressional wetlands affect watershed hydrological, biogeochemical, and ecological functions. Ecological Applications, 2018, 28, 953-966.	1.8	91
10	Geographically Isolated Wetlands: Rethinking a Misnomer. Wetlands, 2015, 35, 423-431.	0.7	87
11	Hydrological, Physical, and Chemical Functions and Connectivity of Non-Floodplain Wetlands to Downstream Waters: A Review. Journal of the American Water Resources Association, 2018, 54, 346-371.	1.0	86
12	Hydrologic model predictability improves with spatially explicit calibration using remotely sensed evapotranspiration and biophysical parameters. Journal of Hydrology, 2018, 567, 668-683.	2.3	86
13	Satellite remote sensing of isolated wetlands using object-oriented classification of Landsat-7 data. Wetlands, 2009, 29, 931-941.	0.7	84
14	Geographically isolated wetlands and watershed hydrology: A modified model analysis. Journal of Hydrology, 2015, 529, 240-256.	2.3	82
15	Calculating the Ecosystem Service of Water Storage in Isolated Wetlands using LiDAR in North Central Florida, USA. Wetlands, 2010, 30, 967-977.	0.7	80
16	An improved representation of geographically isolated wetlands in a watershed-scale hydrologic model. Hydrological Processes, 2016, 30, 4168-4184.	1.1	80
17	Relative effects of geographically isolated wetlands on streamflow: a watershed-scale analysis. Ecohydrology, 2016, 9, 21-38.	1.1	72
18	Delineating wetland catchments and modeling hydrologic connectivity using lidar data and aerial imagery. Hydrology and Earth System Sciences, 2017, 21, 3579-3595.	1.9	70

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19	Diatoms as indicators of isolated herbaceous wetland condition in Florida, USA. <i>Ecological Indicators</i> , 2007, 7, 521-540.	2.6	65
20	Improved Wetland Classification Using Eight-Band High Resolution Satellite Imagery and a Hybrid Approach. <i>Remote Sensing</i> , 2014, 6, 12187-12216.	1.8	65
21	Delineation and Quantification of Wetland Depressions in the Prairie Pothole Region of North Dakota. <i>Wetlands</i> , 2016, 36, 215-227.	0.7	58
22	Physical and Chemical Connectivity of Streams and Riparian Wetlands to Downstream Waters: A Synthesis. <i>Journal of the American Water Resources Association</i> , 2018, 54, 323-345.	1.0	53
23	Identification of Putative Geographically Isolated Wetlands of the Conterminous United States. <i>Journal of the American Water Resources Association</i> , 2016, 52, 705-722.	1.0	47
24	Biota Connect Aquatic Habitats throughout Freshwater Ecosystem Mosaics. <i>Journal of the American Water Resources Association</i> , 2018, 54, 372-399.	1.0	45
25	Non-floodplain Wetlands Affect Watershed Nutrient Dynamics: A Critical Review. <i>Environmental Science &amp; Technology</i> , 2019, 53, 7203-7214.	4.6	45
26	Surface Depression and Wetland Water Storage Improves Major River Basin Hydrologic Predictions. <i>Water Resources Research</i> , 2020, 56, e2019WR026561.	1.7	45
27	Estimating restorable wetland water storage at landscape scales. <i>Hydrological Processes</i> , 2018, 32, 305-313.	1.1	44
28	Efficient Delineation of Nested Depression Hierarchy in Digital Elevation Models for Hydrological Analysis Using Levelâ€Set Method. <i>Journal of the American Water Resources Association</i> , 2019, 55, 354-368.	1.0	44
29	An Effective Method for Detecting Potential Woodland Vernal Pools Using High-Resolution LiDAR Data and Aerial Imagery. <i>Remote Sensing</i> , 2014, 6, 11444-11467.	1.8	42
30	Multi-temporal Sub-pixel Landsat ETM+ Classification of Isolated Wetlands in Cuyahoga County, Ohio, USA. <i>Wetlands</i> , 2012, 32, 289-299.	0.7	39
31	Comparing Pixel- and Object-Based Approaches in Effectively Classifying Wetland-Dominated Landscapes. <i>Remote Sensing</i> , 2018, 10, 46.	1.8	38
32	Mapping Isolated Wetlands in a Karst Landscape: GIS and Remote Sensing Methods. <i>GIScience and Remote Sensing</i> , 2009, 46, 187-211.	2.4	34
33	A watershed-scale model for depressional wetland-rich landscapes. <i>Journal of Hydrology X</i> , 2018, 1, 100002.	0.8	31
34	Featured Collection Introduction: Connectivity of Streams and Wetlands to Downstream Waters. <i>Journal of the American Water Resources Association</i> , 2018, 54, 287-297.	1.0	30
35	Watershed Modeling with Remotely Sensed Big Data: MODIS Leaf Area Index Improves Hydrology and Water Quality Predictions. <i>Remote Sensing</i> , 2020, 12, 2148.	1.8	29
36	Modeling Connectivity of Nonâ€floodplain Wetlands: Insights, Approaches, and Recommendations. <i>Journal of the American Water Resources Association</i> , 2019, 55, 559-577.	1.0	26

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37	Vegetation based classification trees for rapid assessment of isolated wetland condition. <i>Ecological Indicators</i> , 2005, 5, 189-206.	2.6	25
38	Boosted Regression Tree Models to Explain Watershed Nutrient Concentrations and Biological Condition. <i>Journal of the American Water Resources Association</i> , 2016, 52, 1251-1274.	1.0	23
39	The Significant Surface-Water Connectivity of “Geographically Isolated Wetlands”. <i>Wetlands</i> , 2017, 37, 801-806.	0.7	23
40	Vulnerable Waters are Essential to Watershed Resilience. <i>Ecosystems</i> , 2023, 26, 1-28.	1.6	21
41	A Hydrologic Landscapes Perspective on Groundwater Connectivity of Depressional Wetlands. <i>Water (Switzerland)</i> , 2020, 12, 50.	1.2	20
42	Characteristic community structure of Florida’s subtropical wetlands: the Florida wetland condition index for depressional marshes, depressional forested, and flowing water forested wetlands. <i>Wetlands Ecology and Management</i> , 2010, 18, 543-556.	0.7	19
43	Assessment of Isolated Wetland Condition in Florida Using Epiphytic Diatoms at Genus, Species, and Subspecies Taxonomic Resolution. <i>EcoHealth</i> , 2007, 4, 219-230.	0.9	17
44	The potential role of very high-resolution imagery to characterise lake, wetland and stream systems across the Prairie Pothole Region, United States. <i>International Journal of Remote Sensing</i> , 2019, 40, 5768-5798.	1.3	17
45	Wetlands inform how climate extremes influence surface water expansion and contraction. <i>Hydrology and Earth System Sciences</i> , 2018, 22, 1851-1873.	1.9	16
46	Improving global flood and drought predictions: integrating non-floodplain wetlands into watershed hydrologic models. <i>Environmental Research Letters</i> , 2021, 16, 091002.	2.2	15
47	Denitrification Potential in Geographically Isolated Wetlands of North Carolina and Florida, USA. <i>Wetlands</i> , 2015, 35, 459-471.	0.7	14
48	Classification and inventory of freshwater wetlands and aquatic habitats in the Selenga River Delta of Lake Baikal, Russia, using high-resolution satellite imagery. <i>Wetlands Ecology and Management</i> , 2015, 23, 195-214.	0.7	13
49	Land-Cover Changes to Surface-Water Buffers in the Midwestern USA: 25 Years of Landsat Data Analyses (1993–2017). <i>Remote Sensing</i> , 2020, 12, 754.	1.8	13
50	Wetland restoration yields dynamic nitrate responses across the Upper Mississippi river basin. <i>Environmental Research Communications</i> , 2021, 3, 095002.	0.9	13
51	Energy-Based Land Use Predictors of Proximal Factors and Benthic Diatom Composition in Florida Freshwater Marshes. <i>Environmental Monitoring and Assessment</i> , 2006, 117, 433-450.	1.3	11
52	Effect of sampling method on diatom composition for use in monitoring and assessing large river condition. <i>River Research and Applications</i> , 2007, 23, 1126-1146.	0.7	11
53	Benthic diatom composition in isolated forested wetlands subject to drying: Implications for monitoring and assessment. <i>Ecological Indicators</i> , 2009, 9, 1121-1128.	2.6	11
54	The Influence of Region of Interest Heterogeneity on Classification Accuracy in Wetland Systems. <i>Remote Sensing</i> , 2019, 11, 551.	1.8	11

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55	Wetland Flowpaths Mediate Nitrogen and Phosphorus Concentrations across the Upper Mississippi River Basin. <i>Journal of the American Water Resources Association</i> , 2023, 59, 1162-1179.	1.0	9
56	Relative Importance of Landscape Versus Local Wetland Characteristics for Estimating Wetland Denitrification Potential. <i>Wetlands</i> , 2019, 39, 127-137.	0.7	8
57	Drivers and extent of surface water occurrence in the Selenga River Delta, Russia. <i>Journal of Hydrology: Regional Studies</i> , 2021, 38, 100945.	1.0	5
58	Seasonality of inundation in geographically isolated wetlands across the United States. <i>Environmental Research Letters</i> , 2022, 17, 054005.	2.2	5