Alan T Herlihy

List of Publications by Year
in descending order

128 papers	7,308 citations	46918 47 h-index	64668 79 g-index
131 all docs	131 docs citations	131 times ranked	4711 citing authors

#	Article	IF	Citations
1	A process for creating multimetric indices for large-scale aquatic surveys. Journal of the North American Benthological Society, 2008, 27, 878-891.	3.0	337
2	A process for developing and evaluating indices of fish assemblage integrity. Canadian Journal of Fisheries and Aquatic Sciences, 1998, 55, 1618-1631.	0.7	268
3	Using Diatoms as Indicators of Ecological Conditions in Lotic Systems: A Regional Assessment. Journal of the North American Benthological Society, 1996, 15, 481-495.	3.0	236
4	Use of periphyton assemblage data as an index of biotic integrity. Journal of the North American Benthological Society, 2000, 19, 50-67.	3.0	232
5	Continental-Scale Increase in Lake and Stream Phosphorus: Are Oligotrophic Systems Disappearing in the United States?. Environmental Science & Technology, 2016, 50, 3409-3415.	4.6	187
6	Striving for consistency in a national assessment: the challenges of applying a reference-condition approach at a continental scale. Journal of the North American Benthological Society, 2008, 27, 860-877.	3.0	184
7	Development and Evaluation of a Macroinvertebrate Biotic Integrity Index (MBII) for Regionally Assessing Mid-Atlantic Highlands Streams. Environmental Management, 2003, 31, 656-669.	1.2	176
8	Development of an Index of Biotic Integrity for the Mid-Atlantic Highlands Region. Transactions of the American Fisheries Society, 2001, 130, 857-877.	0.6	165
9	Condition of stream ecosystems in the US: an overview of the first national assessment. Journal of the North American Benthological Society, 2008, 27, 812-821.	3.0	164
10	Title is missing!. Water, Air, and Soil Pollution, 1998, 105, 377-386.	1.1	159
11	Ecological effects of nitrogen and sulfur air pollution in the US: what do we know?. Frontiers in Ecology and the Environment, 2012, 10, 365-372.	1.9	157
12	A Structured Approach for Developing Indices of Biotic Integrity: Three Examples from Streams and Rivers in the Western USA. Transactions of the American Fisheries Society, 2007, 136, 718-735.	0.6	143
13	Sulfate Reduction in Freshwater Sediments Receiving Acid Mine Drainage. Applied and Environmental Microbiology, 1985, 49, 179-186.	1.4	134
14	Title is missing!. Environmental Monitoring and Assessment, 2000, 63, 95-113.	1.3	133
15	SPATIAL PATTERNS AND ECOLOGICAL DETERMINANTS OF BENTHIC ALGAL ASSEMBLAGES IN MID-ATLANTIC STREAMS, USA. Journal of Phycology, 1999, 35, 460-468.	1.0	132
16	Concordance of taxonomic composition patterns across multiple lake assemblages: effects of scale, body size, and land use. Canadian Journal of Fisheries and Aquatic Sciences, 1999, 56, 2029-2040.	0.7	128
17	Comparative application of indices of biotic integrity based on periphyton, macroinvertebrates, and fish to southern Rocky Mountain streams. Ecological Indicators, 2005, 5, 117-136.	2.6	116
18	Acidic Lakes and Streams in the United States: The Role of Acidic Deposition. Science, 1991, 252, 1151-1154.	6.0	111

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19	Variability in stream macroinvertebrates at multiple spatial scales. Freshwater Biology, 2001, 46, 87-97.	1.2	111
20	Selecting reference sites for stream biological assessments: best professional judgment or objective criteria. Journal of the North American Benthological Society, 2007, 26, 349-360.	3.0	109
21	Mercury Concentration in Fish from Streams and Rivers Throughout the Western United States. Environmental Science & Technology, 2007, 41, 58-65.	4.6	107
22	PROJECTING THE BIOLOGICAL CONDITION OF STREAMS UNDER ALTERNATIVE SCENARIOS OF HUMAN LAND USE. , 2004, 14, 368-380.		106
23	The effects of macroinvertebrate taxonomic resolution in large landscape bioassessments: an example from the Mid-Atlantic Highlands, U.S.A.. Freshwater Biology, 2004, 49, 474-489.	1.2	97
24	Algaeâ€“P relationships, thresholds, and frequency distributions guide nutrient criterion development. Journal of the North American Benthological Society, 2008, 27, 783-799.	3.0	96
25	Comparison of correlations between environmental characteristics and stream diatom assemblages characterized at genus and species levels. Journal of the North American Benthological Society, 2001, 20, 299-310.	3.0	95
26	Assessment of streams of the eastern United States using a periphyton index of biotic integrity. Ecological Indicators, 2003, 2, 325-338.	2.6	95
27	Peer Reviewed: Have U.S. Surface Waters Responded to the 1990 Clean Air Act Amendments?. Environmental Science & Technology, 2004, 38, 484A-490A.	4.6	95
28	Concordance of taxonomic richness patterns across multiple assemblages in lakes of the northeastern United States. Canadian Journal of Fisheries and Aquatic Sciences, 1999, 56, 739-747.	0.7	95
29	Comparing strengths of geographic and nongeographic classifications of stream benthic macroinvertebrates in the Mid-Atlantic Highlands, USA. Journal of the North American Benthological Society, 2000, 19, 429-441.	3.0	94
30	Electrofishing Effort Requirements for Assessing Species Richness and Biotic Integrity in Western Oregon Streams. North American Journal of Fisheries Management, 2003, 23, 450-461.	0.5	94
31	Ecoregions and benthic diatom assemblages in Mid-Atlantic Highlands streams, USA. Journal of the North American Benthological Society, 2000, 19, 518-540.	3.0	92
32	Development of diatom indicators of ecological conditions for streams of the western US. Journal of the North American Benthological Society, 2008, 27, 1000-1016.	3.0	87
33	Variability in stream macroinvertebrates at multiple spatial scales. , 2001, 46, 87.		86
34	Linkages among land-use, water quality, physical habitat conditions and lotic diatom assemblages: A multi-spatial scale assessment. Hydrobiologia, 2004, 515, 59-73.	1.0	80
35	A null model for the expected macroinvertebrate assemblage in streams. Journal of the North American Benthological Society, 2005, 24, 178-191.	3.0	79
36	A calcium-based invasion risk assessment for zebra and quagga mussels (Dreissena spp). Frontiers in Ecology and the Environment, 2008, 6, 180-184.	1.9	79

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37	Electrofishing Distance Needed to Estimate Fish Species Richness in Raftable Oregon Rivers. North American Journal of Fisheries Management, 2002, 22, 1229-1240.	0.5	75
38	The effects of acidic deposition on streams in the Appalachian Mountain and Piedmont Region of the Mid-Atlantic United States. Water Resources Research, 1993, 29, 2687-2703.	1.7	74
39	An improved macroinvertebrate multimetric index for the assessment of wadeable streams in the neotropical savanna. Ecological Indicators, 2017, 81, 514-525.	2.6	72
40	Methods development and use of macroinvertebrates as indicators of ecological conditions for streams in the Mid-Atlantic Highlands Region. Environmental Monitoring and Assessment, 2002, 78, 169-212.	1.3	63
41	Effect of sampling different habitat types in regional macroinvertebrate bioassessment surveys. Journal of the North American Benthological Society, 2006, 25, 501-512.	3.0	63
42	Stream chemistry in the eastern United States: 1. Synoptic survey design, acid-base status, and regional patterns. Water Resources Research, 1991, 27, 611-627.	1.7	62
43	Acid-base Characteristics of Soils in the Adirondack Mountains, New York. Soil Science Society of America Journal, 2006, 70, 141-152.	1.2	57
44	The relation of lotic fish and benthic macroinvertebrate condition indices to environmental factors across the conterminous USA. Ecological Indicators, 2020, 112, 105958.	2.6	57
45	Developing nutrient criteria and classification schemes for wadeable streams in the conterminous US. Journal of the North American Benthological Society, 2008, 27, 932-948.	3.0	56
46	Downstream variation in bankfull width of wadeable streams across the conterminous United States. Geomorphology, 2009, 108, 292-311.	1.1	56
47	Interregional comparisons of sediment microbial respiration in streams. Freshwater Biology, 2000, 44, 213-222.	1.2	55
48	Indicators of Ecological Stress and Their Extent in the Population of Northeastern Lakes: A Regional-Scale Assessment. BioScience, 2002, 52, 235.	2.2	51
49	Macroinvertebrate community response to natural and forest harvest gradients in western Oregon headwater streams. Freshwater Biology, 2005, 50, 905-919.	1.2	50
50	ANALYSIS OF MACROINVERTEBRATE ASSEMBLAGES IN RELATION TO ENVIRONMENTAL GRADIENTS IN ROCKY MOUNTAIN STREAMS. , 2001, 11, 489-505.		48
51	MULTIVARIATE ANALYSIS OF PERIPHYTON ASSEMBLAGES IN RELATION TO ENVIRONMENTAL GRADIENTS IN COLORADO ROCKY MOUNTAIN STREAMS1. Journal of Phycology, 2002, 38, 83-95.	1.0	48
52	Contamination of fish in streams of the Midâ€Atlantic Region: An approach to regional indicator selection and wildlife assessment. Environmental Toxicology and Chemistry, 2003, 22, 545-553.	2.2	47
53	Ion-chromatographic analysis of mixtures of ferrous and ferric iron. Talanta, 1988, 35, 15-22.	2.9	45
54	Spatial Distribution of Acid-sensitive and Acid-impacted Streams in Relation to Watershed Features in the Southern Appalachian Mountains. Water, Air, and Soil Pollution, 2007, 182, 57-71.	1.1	43

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55	Influence of Rare Species on Electrofishing Distance When Estimating Species Richness of Stream and River Reaches. Transactions of the American Fisheries Society, 2009, 138, 1240-1251.	0.6	43
56	The importance of sediment sulfate reduction to the sulfate budget of an impoundment receiving acid mine drainage. Water Resources Research, 1987, 23, 287-292.	1.7	42
57	Stream chemistry in the eastern United States: 2. Current sources of acidity in acidic and low acid-neutralizing capacity streams. Water Resources Research, 1991, 27, 629-642.	1.7	42
58	Regional model projections of future effects of sulfur and nitrogen deposition on streams in the southern Appalachian Mountains. Water Resources Research, 2004, 40, .	1.7	41
59	Assessing the extent and relative risk of aquatic stressors on stream macroinvertebrate assemblages in the neotropical savanna. Science of the Total Environment, 2018, 633, 179-188.	3.9	40
60	Climatic forcing on zooplankton richness in lakes of the northeastern United States. Limnology and Oceanography, 1996, 41, 1093-1101.	1.6	38
61	Benthic microbial respiration in Appalachian Mountain, Piedmont, and Coastal Plains streams of the eastern U.S.A.. Freshwater Biology, 2002, 47, 185-194.	1.2	37
62	An Evaluation of Qualitative Indexes of Physical Habitat Applied to Agricultural Streams in Ten U.S. States¹. Journal of the American Water Resources Association, 2010, 46, 792-806.	1.0	36
63	The Dilemma of Sampling Streams for Macroinvertebrate Richness. Journal of the North American Benthological Society, 1998, 17, 359-366.	3.0	35
64	Electrofishing Distance Needed to Estimate Consistent Index of Biotic Integrity (IBI) Scores in Raftable Oregon Rivers. Transactions of the American Fisheries Society, 2007, 136, 135-141.	0.6	33
65	Influence of clearcut logging, flow duration, and season on emergent aquatic insects in headwater streams of the Central Oregon Coast Range. Journal of the North American Benthological Society, 2007, 26, 620-632.	3.0	33
66	An economic approach to environmental indices. Ecological Economics, 2009, 68, 2216-2223.	2.9	33
67	The Relationship between Stream Chemistry and Watershed Land Cover Data in the Mid-Atlantic Region, U.S.. , 1998, , 377-386.		33
68	Patterns in Catch Per Unit Effort of Native Prey Fish and Alien Piscivorous Fish in 7 Pacific Northwest USA Rivers. Fisheries, 2012, 37, 201-211.	0.6	31
69	Using multiple approaches to develop nutrient criteria for lakes in the conterminous USA. Freshwater Science, 2013, 32, 367-384.	0.9	31
70	Anthropogenically Driven Changes in Chloride Complicate Interpretation of Base Cation Trends in Lakes Recovering from Acidic Deposition. Environmental Science & Technology, 2007, 41, 7688-7693.	4.6	30
71	Quantifying the extent of human disturbance activities and anthropogenic stressors in wetlands across the conterminous United States: results from the National Wetland Condition Assessment. Environmental Monitoring and Assessment, 2019, 191, 324.	1.3	29
72	Microbial ecoenzyme stoichiometry, nutrient limitation, and organic matter decomposition in wetlands of the conterminous United States. Wetlands Ecology and Management, 2018, 26, 425-439.	0.7	26

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73	Estimating vertebrate, benthic macroinvertebrate, and diatom taxa richness in raftable Pacific Northwest rivers for bioassessment purposes. Environmental Monitoring and Assessment, 2012, 184, 3185-3198.	1.3	25
74	The pH regime of sediments underlying acidified waters. Biogeochemistry, 1986, 2, 95-99.	1.7	24
75	Distribution of reduced inorganic sulfur compounds in lake sediments receiving acid mine drainage. Applied Geochemistry, 1988, 3, 333-344.	1.4	23
76	Performance-based environmental index weights: Are all metrics created equal?. Ecological Economics, 2010, 69, 1043-1050.	2.9	23
77	Valuing tradeoffs between agricultural production and wetland condition in the U.S. Mid-Atlantic region. Ecological Economics, 2014, 105, 284-291.	2.9	23
78	Sources of acidity in lakes and streams of the United States. Environmental Pollution, 1992, 77, 115-122.	3.7	22
79	The relative influence of geographic location and reach-scale habitat on benthic invertebrate assemblages in six ecoregions. Environmental Monitoring and Assessment, 2009, 154, 1-14.	1.3	22
80	Context is Everything: Interacting Inputs and Landscape Characteristics Control Stream Nitrogen. Environmental Science & Technology, 2021, 55, 7890-7899.	4.6	22
81	Developing an index of wetland condition from ecological data: An example using HGM functional variables from the Nanticoke watershed, USA. Ecological Indicators, 2010, 10, 703-712.	2.6	21
82	Seasonal and spatial fluctuations in Oncorhynchus trout diet in a temperate mixed-forest watershed. Canadian Journal of Fisheries and Aquatic Sciences, 2016, 73, 1642-1649.	0.7	21
83	Use of national-scale data to examine human-mediated additions of heavy metals to wetland soils of the US. Environmental Monitoring and Assessment, 2019, 191, 336.	1.3	21
84	RELATIONSHIPS AMONG EXCEEDENCES OF METALS CRITERIA, THE RESULTS OF AMBIENT BIOASSAYS, AND COMMUNITY METRICS IN MINING-IMPACTED STREAMS. Environmental Toxicology and Chemistry, 2004, 23, 1786.	2.2	20
85	Striving for consistency in the National Wetland Condition Assessment: developing a reference condition approach for assessing wetlands at a continental scale. Environmental Monitoring and Assessment, 2019, 191, 327.	1.3	20
86	Level and extent of mercury contamination in Oregon, USA, lotic fish. Environmental Toxicology and Chemistry, 2002, 21, 2157-2164.	2.2	19
87	Calibration of the Delaware Rapid Assessment Protocol to a Comprehensive Measure of Wetland Condition. Wetlands, 2010, 30, 1011-1022.	0.7	19
88	Summer Distribution and Species Richness of Non-native Fishes in the Mainstem Willamette River, Oregon, 1944â€“2006. Northwest Science, 2008, 82, 83-93.	0.1	18
89	Target loads of atmospheric sulfur and nitrogen deposition for protection of acid sensitive aquatic resources in the Adirondack Mountains, New York. Water Resources Research, 2012, 48, .	1.7	18
90	An a priori process for selecting candidate reference lakes for a national survey. Freshwater Science, 2013, 32, 385-396.	0.9	17

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91	Sampling efforts for estimating fish species richness in western USA river sites. Limnologica, 2021, 87, 125859.	0.7	17
92	Electrofishing Effort Required to Estimate Biotic Condition in Southern Idaho Rivers. North American Journal of Fisheries Management, 2007, 27, 1041-1052.	0.5	16
93	A Synoptic Survey of Nitrogen and Phosphorus in Tributary Streams and Great Rivers of the Upper Mississippi, Missouri, and Ohio River Basins. Water, Air, and Soil Pollution, 2011, 216, 605-619.	1.1	16
94	Regional Susceptibility of Northeast Lakes to Zebra Mussel Invasion. Fisheries, 1995, 20, 20-27.	0.6	14
95	Acidification and Prognosis for Future Recovery of Acid-Sensitive Streams in the Southern Blue Ridge Province. Water, Air, and Soil Pollution, 2011, 219, 11-26.	1.1	14
96	Assessing the relative and attributable risk of stressors to wetland condition across the conterminous United States. Environmental Monitoring and Assessment, 2019, 191, 320.	1.3	14
97	Regionalization of disturbance-induced nitrogen leakage from mid-Appalachian forests using a linear systems model. Hydrological Processes, 2004, 18, 2713-2725.	1.1	12
98	Assessment of the Extent to Which Intensively-studied Lakes are Representative of the Adirondack Region and Response to Future Changes in Acidic Deposition. Water, Air, and Soil Pollution, 2007, 185, 279-291.	1.1	12
99	Factors controlling the removal of sulfate and acidity from the waters of an acidified lake. Water, Air, and Soil Pollution, 1989, 45, 135-155.	1.1	12
100	Non-wadeable river bioassessment: spatial variation of benthic diatom assemblages in Pacific Northwest rivers, USA. Hydrobiologia, 2012, 684, 241-260.	1.0	11
101	Comment on Bachmann et al. (2013): A nonrepresentative sample cannot describe the extent of cultural eutrophication of natural lakes in the United States. Limnology and Oceanography, 2014, 59, 2226-2230.	1.6	11
102	Predicting aquatic vertebrate assemblages from environmental variables at three multistate geographic extents of the western USA. Ecological Indicators, 2015, 57, 546-556.	2.6	11
103	A synoptic survey of microbial respiration, organic matter decomposition, and carbon efflux in U.S. streams and rivers. Limnology and Oceanography, 2017, 62, S147-S159.	1.6	11
104	The response of wetland quality indicators to human disturbance indicators across the United States. Environmental Monitoring and Assessment, 2019, 191, 296.	1.3	11
105	Lake Water Levels and Associated Hydrologic Characteristics in the Conterminous U.S.. Journal of the American Water Resources Association, 2020, 56, 450-471.	1.0	11
106	Effects of Disturbance on Nitrogen Export from Forested Lands of the Chesapeake Bay Watershed. Environmental Monitoring and Assessment, 2000, 63, 187-197.	1.3	10
107	Characterizing nonnative plants in wetlands across the conterminous United States. Environmental Monitoring and Assessment, 2019, 191, 344.	1.3	10
108	USA-scale patterns in wetland water quality as determined from the 2011 National Wetland Condition Assessment. Environmental Monitoring and Assessment, 2019, 191, 266.	1.3	10

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109	Establishment of anaerobic, reducing conditions in lake sediment after deposition of acidic, aerobic sediment by a major storm. Biogeochemistry, 1990, 9, 99-116.	1.7	9
110	Bioassessments to Detect Changes in Pacific Northwest River Fish Assemblages: A Malheur River Case Study. Northwest Science, 2008, 82, 251-258.	0.1	9
111	Microbial ecology and acidic pollution of impoundments. , 1985, , 169-189.		9
112	Genus-level, trait-based multimetric diatom indices for assessing the ecological condition of rivers and streams across the conterminous United States. Ecological Indicators, 2022, 141, 109131.	2.6	9
113	An Approach for Evaluating the Repeatability of Rapid Wetland Assessment Methods: The Effects of Training and Experience. Environmental Management, 2009, 44, 369-377.	1.2	7
114	Assessing Stream Ecosystem Condition in the United States. Eos, 2009, 90, 309-310.	0.1	7
115	Effects of Grass Seed Agriculture on Aquatic Invertebrate Communities Inhabiting Seasonal Wetlands of the Southern Willamette Valley, Oregon. Wetlands, 2013, 33, 921-937.	0.7	7
116	National framework for ranking lakes by potential for anthropogenic hydro-alteration. Ecological Indicators, 2021, 122, 107241.	2.6	6
117	Level and extent of mercury contamination in Oregon, USA, lotic fish. , 2002, 21, 2157.		6
118	Isomorphic chain graphs for modeling spatial dependence in ecological data. Environmental and Ecological Statistics, 2007, 14, 27-40.	1.9	5
119	A Complete Fisheries Inventory of the Chulitna River Basin, Lake Clark National Park and Preserve, Alaska: Example of a Minimally Disturbed Basin. Transactions of the American Fisheries Society, 2020, 149, 14-26.	0.6	4
120	Large-scale macroinvertebrate assemblage patterns from least-disturbed wadeable stream sites across the 48 contiguous US states. Knowledge and Management of Aquatic Ecosystems, 2013, , 02.	0.5	3
121	Rivers and Streams: Upgrading Monitoring of the Nationâ€™s Freshwater Resources - Meeting the Spirit of the Clean Water Act. , 0, , .		2
122	Contamination of fish in streams of the Mid-Atlantic Region: An approach to regional indicator selection and wildlife assessment. , 2003, 22, 545.		2
123	Jewels across the Landscape: Monitoring and Assessing the Quality of Lakes and Reservoirs in the United States. , 0, , .		2
124	Î´15N of Chironomidae: An index of nitrogen sources and processing within watersheds for national aquatic monitoring programs. Science of the Total Environment, 2021, 813, 151867.	3.9	2
125	<scp>Longitudinal patterns</scp> in riverine ecology within and among seven Pacific Northwest rivers: Implications for river research, monitoring and management. River Research and Applications, 2022, 38, 548-560.	0.7	2
126	Modeling fate and transport of sulfate and alkalinity in an acidified lake. Water, Air, and Soil Pollution, 1988, 37, 157.	1.1	1

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127	Transition Plan. Brain & Life, 2019, 15, 32-35.	0.0	0
128	Laboratory Analyses. , 2012, , 694-699.		0