Robert M Hughes

List of Publications by Year
in descending order

134	7,757	34016	58464
papers	citations	52 h-index	82 g-index

137	137	137	4372
all docs	docs citations	times ranked	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	Regional reference sites: a method for assessing stream potentials. Environmental Management, 1986, 10, 629-635.	1.2	288
3	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
4	Evaluation of the use of landscape classifications for the prediction of freshwater biota: synthesis and recommendations. Journal of the North American Benthological Society, 2000, 19, 541-556.	3.0	235
5	Stream biomonitoring using macroinvertebrates around the globe: a comparison of large-scale programs. Environmental Monitoring and Assessment, 2015, 187, 4132.	1.3	209
6	Acquiring data for large aquatic resource surveys: the art of compromise among science, logistics, and reality. Journal of the North American Benthological Society, 2008, 27, 837-859.	3.0	193
7	Longitudinal Changes in Fish Assemblages and Water Quality in the Willamette River, Oregon. Transactions of the American Fisheries Society, 1987, 116, 196-209.	0.6	184
8	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
9	Disentangling the pathways of land use impacts on the functional structure of fish assemblages in Amazon streams. Ecography, 2018, 41, 219-232.	2.1	166
10	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
11	Correspondence Between Ecoregions and Spatial Patterns in Stream Ecosystems in Oregon. Canadian Journal of Fisheries and Aquatic Sciences, 1988, 45, 1264-1278.	0.7	148
12	Classification strengths of ecoregions, catchments, and geographic clusters for aquatic vertebrates in Oregon. Journal of the North American Benthological Society, 2000, 19, 370-384.	3.0	146
13	Defining quantitative stream disturbance gradients and the additive role of habitat variation to explain macroinvertebrate taxa richness. Ecological Indicators, 2013, 25, 45-57.	2.6	146
14	Multiscale land use impacts on water quality: Assessment, planning, and future perspectives in Brazil. Journal of Environmental Management, 2020, 270, 110879.	3.8	146
15	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
16	A social and ecological assessment of tropical land uses at multiple scales: the Sustainable Amazon Network. Philosophical Transactions of the Royal Society B: Biological Sciences, 2013, 368, 20120166.	1.8	133
17	Development of a Bird Integrity Index: Using Bird Assemblages as Indicators of Riparian Condition. Environmental Management, 2002, 30, 294-310.	1.2	132
18	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

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19	Macroinvertebrate-based multimetric predictive models for evaluating the human impact on biotic condition of Bolivian streams. Ecological Indicators, 2011, 11, 840-847.	2.6	122
20	Neotropical dragonflies (<scp>I</scp>nsecta: <scp>O</scp>donata) as indicators of ecological condition of small streams in the eastern <scp>A</scp>mazon. Austral Ecology, 2015, 40, 733-744.	0.7	114
21	Biological Diversity and Biological Integrity: Current Concerns for Lakes and Streams. Fisheries, 1992, 17, 11-19.	0.6	113
22	Headwater Streams andÂWetlands are CriticalÂfor Sustaining Fish, Fisheries, and Ecosystem Services. Fisheries, 2019, 44, 73-91.	0.6	110
23	Multi-scale assessment of human-induced changes to Amazonian instream habitats. Landscape Ecology, 2016, 31, 1725-1745.	1.9	108
24	Mercury Concentration in Fish from Streams and Rivers Throughout the Western United States. Environmental Science & Technology, 2007, 41, 58-65.	4.6	107
25	An Index of Biological Integrity (IBI) for Pacific Northwest Rivers. Transactions of the American Fisheries Society, 2003, 132, 239-261.	0.6	99
26	A Predictive Index of Biotic Integrity Model for Aquaticâ€Vertebrate Assemblages of Western U.S. Streams. Transactions of the American Fisheries Society, 2009, 138, 292-305.	0.6	98
27	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
28	The Relationship of Aquatic Ecoregions, River Basins and Physiographic Provinces to the Ichthyogeographic Regions of Oregon. Copeia, 1987, 1987, 423.	1.4	90
29	The Biological Assessment and Rehabilitation of the Worldâ€™s Rivers: An Overview. Water (Switzerland), 2021, 13, 371.	1.2	88
30	Integrated terrestrial-freshwater planning doubles conservation of tropical aquatic species. Science, 2020, 370, 117-121.	6.0	87
31	The relative influence of catchment and site variables on fish and macroinvertebrate richness in cerrado biome streams. Landscape Ecology, 2014, 29, 1001-1016.	1.9	82
32	Correspondence between spatial patterns in fish assemblages in ohio streams and aquatic ecoregions. Environmental Management, 1986, 10, 815-828.	1.2	77
33	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
34	Global trends and challenges in multimetric indices of biological condition. Ecological Indicators, 2020, 110, 105862.	2.6	75
35	Evaluating performance of macroinvertebrate-based adjusted and unadjusted multi-metric indices (MMI) using multi-season and multi-year samples. Ecological Indicators, 2014, 36, 142-151.	2.6	74
36	Recreational fisheries in the USA: economics, management strategies, and ecological threats. Fisheries Science, 2015, 81, 1-9.	0.7	73

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37	A Biointegrity Index (IBI) for Coldwater Streams of Western Oregon and Washington. Transactions of the American Fisheries Society, 2004, 133, 1497-1515.	0.6	72
38	An improved macroinvertebrate multimetric index for the assessment of wadeable streams in the neotropical savanna. Ecological Indicators, 2017, 81, 514-525.	2.6	72
39	Evaluating sampling sufficiency in fish assemblage surveys: a similarity-based approach. Canadian Journal of Fisheries and Aquatic Sciences, 2001, 58, 1782-1793.	0.7	68
40	Development of a benthic macroinvertebrate multimetric index (MMI) for Neotropical Savanna headwater streams. Ecological Indicators, 2016, 64, 132-141.	2.6	68
41	Effects of human disturbance and riparian conditions on Odonata (Insecta) assemblages in eastern Amazon basin streams. Limnologica, 2017, 66, 31-39.	0.7	65
42	Is environmental legislation conserving tropical stream faunas? A largeâ€scale assessment of local, riparian and catchmentâ€scale influences on Amazonian fish. Journal of Applied Ecology, 2018, 55, 1312-1326.	1.9	62
43	Using Multiple Taxonomic Groups to Index the Ecological Condition of Lakes. Environmental Monitoring and Assessment, 2000, 61, 207-229.	1.3	61
44	Longitudinal Zonation of Pacific Northwest (U.S.A.) Fish Assemblages and the Species-Discharge Relationship. Copeia, 2008, 2008, 311-321.	1.4	61
45	Towards rapid bioassessment of wadeable streams in Brazil: Development of the GuapiaÃ§u-Macau Multimetric Index (GMMI) based on benthic macroinvertebrates. Ecological Indicators, 2011, 11, 1584-1593.	2.6	59
46	Human Population Increase, Economic Growth, and Fish Conservation: Collision Course or Savvy Stewardship?. Fisheries, 2011, 36, 27-35.	0.6	59
47	A Review of Urban Water Body Challenges and Approaches: (1) Rehabilitation and Remediation. Fisheries, 2014, 39, 18-29.	0.6	59
48	National and regional comparisons between Strahler order and stream size. Journal of the North American Benthological Society, 2011, 30, 103-121.	3.0	58
49	Characterizing coal and mineral mines as a regional source of stress to stream fish assemblages. Ecological Indicators, 2015, 50, 50-61.	2.6	58
50	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
51	Importance of environmental factors for the richness and distribution of benthic macroinvertebrates in tropical headwater streams. Freshwater Science, 2014, 33, 860-871.	0.9	56
52	A fish-based multimetric index for Brazilian savanna streams. Ecological Indicators, 2017, 77, 386-396.	2.6	55
53	Challenges to saving Chinaâ€™s freshwater biodiversity: Fishery exploitation and landscape pressures. Ambio, 2020, 49, 926-938.	2.8	55
54	China's new environmental protection regulatory regime: Effects and gaps. Journal of Environmental Management, 2017, 187, 464-469.	3.8	47

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55	Mayfly bioindicator thresholds for several anthropogenic disturbances in neotropical savanna streams. Ecological Indicators, 2017, 74, 276-284.	2.6	46
56	Small forest losses degrade stream macroinvertebrate assemblages in the eastern Brazilian Amazon. Biological Conservation, 2020, 241, 108263.	1.9	46
57	Lakeshore and littoral physical habitat structure in a national lakes assessment. Lake and Reservoir Management, 2014, 30, 192-215.	0.4	45
58	A multi-assemblage, multi-metric biological condition index for eastern Amazonia streams. Ecological Indicators, 2017, 78, 48-61.	2.6	45
59	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
60	A benthic macroinvertebrate multimetric index for Chilean Mediterranean streams. Ecological Indicators, 2018, 91, 13-23.	2.6	42
61	Fish and Amphibian Tolerance Values and an Assemblage Tolerance Index for Streams and Rivers in the Western USA. Transactions of the American Fisheries Society, 2007, 136, 254-271.	0.6	41
62	Assessment of biotic condition of Atlantic Rain Forest streams: A fish-based multimetric approach. Ecological Indicators, 2013, 34, 136-148.	2.6	41
63	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
64	Local and ecoregion effects on fish assemblage structure in tributaries of the Rio ParaÃba do Sul, Brazil. Freshwater Biology, 2009, 54, 2600-2615.	1.2	39
65	A Humboldtian Approach to Mountain Conservation and Freshwater Ecosystem Services. Frontiers in Environmental Science, 2019, 7, .	1.5	39
66	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
67	Biological indicators of diversity in tropical streams: Congruence in the similarity of invertebrate assemblages. Ecological Indicators, 2018, 85, 85-92.	2.6	35
68	Lakeshore and littoral physical habitat structure: A field survey method and its precision. Lake and Reservoir Management, 2014, 30, 157-176.	0.4	34
69	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
70	Fish assemblages in <scp>A</scp>tlantic <scp>F</scp>orest streams: the relative influence of local and catchment environments on taxonomic and functional species. Ecology of Freshwater Fish, 2016, 25, 527-544.	0.7	33
71	Distribution of Nonnative Aquatic Vertebrates in Western U.S. Streams and Rivers. North American Journal of Fisheries Management, 2007, 27, 1082-1093.	0.5	32
72	The Mining Law of 1872: Change is Overdue. Fisheries, 2010, 35, 321-331.	0.6	32

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73	How Misapplication of the Hydrologic Unit Framework Diminishes the Meaning of Watersheds. Environmental Management, 2017, 60, 1-11.	1.2	32
74	Low forest-loss thresholds threaten Amazonian fish and macroinvertebrate assemblage integrity. Ecological Indicators, 2021, 127, 107773.	2.6	32
75	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
76	Student monitoring of the ecological quality of neotropical urban streams. Ambio, 2019, 48, 867-878.	2.8	30
77	Relevance of lake physical habitat indices to fish and riparian birds. Lake and Reservoir Management, 2014, 30, 177-191.	0.4	28
78	Development and validation of an environmental fragility index (EFI) for the neotropical savannah biome. Science of the Total Environment, 2018, 635, 1267-1279.	3.9	28
79	Agricultural Effects on Streams and Rivers: A Western USA Focus. Water (Switzerland), 2021, 13, 1901.	1.2	28
80	Regionalisation is key to establishing reference conditions for neotropical savanna streams. Marine and Freshwater Research, 2018, 69, 82.	0.7	27
81	Choice of field and laboratory methods affects the detection of anthropogenic disturbances using stream macroinvertebrate assemblages. Ecological Indicators, 2020, 115, 106382.	2.6	26
82	Are We Meeting the Challenges of Landscape-Scale Riverine Research? A Review. Living Reviews in Landscape Research, 0, 4, .	0.0	26
83	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
84	Sampling Sufficiency for Fish Assemblage Surveys of Tropical Atlantic Forest Streams, Southeastern Brazil. Fisheries, 2013, 38, 150-158.	0.6	24
85	The role of physical habitat and sampling effort on estimates of benthic macroinvertebrate taxonomic richness at basin and site scales. Environmental Monitoring and Assessment, 2016, 188, 340.	1.3	24
86	Incorporating functional traits to enhance multimetric index performance and assess land use gradients. Science of the Total Environment, 2019, 691, 1005-1015.	3.9	24
87	Small hydropower dam alters the taxonomic composition of benthic macroinvertebrate assemblages in a neotropical river. River Research and Applications, 2019, 35, 725-735.	0.7	24
88	Visually determined stream mesohabitats influence benthic macroinvertebrate assessments in headwater streams. Environmental Monitoring and Assessment, 2014, 186, 5479-5488.	1.3	22
89	AFS Position Paper and Policy on Mining and Fossil Fuel Extraction. Fisheries, 2016, 41, 12-15.	0.6	22
90	Assemblage-based biomonitoring of freshwater ecosystem health via multimetric indices: A critical review and suggestions for improving their applicability. , 2022, 1, 100054.		22

#	Article	IF	Citations
91	A Review of Urban Water Body Challenges and Approaches: (2) Mitigating Effects of Future Urbanization. Fisheries, 2014, 39, 30-40.	0.6	21
92	Effects of fixed-count size on macroinvertebrate richness, site separation, and bioassessment of Chinese monsoonal streams. Ecological Indicators, 2015, 53, 162-170.	2.6	21
93	Level and extent of mercury contamination in Oregon, USA, lotic fish. Environmental Toxicology and Chemistry, 2002, 21, 2157-2164.	2.2	19
94	Combining and aggregating environmental data for status and trend assessments: challenges and approaches. Environmental Monitoring and Assessment, 2015, 187, 278.	1.3	18
95	Anthropogenic impacts influence the functional traits of Chironomidae (Diptera) assemblages in a neotropical savanna river basin. Aquatic Ecology, 2021, 55, 1081-1095.	0.7	18
96	Functional responses of Odonata larvae to human disturbances in neotropical savanna headwater streams. Ecological Indicators, 2021, 133, 108367.	2.6	18
97	The problem of using fixed-area subsampling methods to estimate macroinvertebrate richness: a case study with Neotropical stream data. Environmental Monitoring and Assessment, 2013, 185, 4077-4085.	1.3	17
98	Are multiple multimetric indices effective for assessing ecological condition in tropical basins?. Ecological Indicators, 2020, 110, 105953.	2.6	17
99	Negative impacts of mining on Neotropical freshwater fishes. Neotropical Ichthyology, 2021, 19, .	0.5	17
100	Sampling efforts for estimating fish species richness in western USA river sites. Limnologica, 2021, 87, 125859.	0.7	17
101	Physical habitat in conterminous US streams and rivers, Part 1: Geoclimatic controls and anthropogenic alteration. Ecological Indicators, 2022, 141, 109046.	2.6	16
102	Towards a protocol for stream macroinvertebrate sampling in China. Environmental Monitoring and Assessment, 2014, 186, 469-479.	1.3	15
103	Responsible Recreational Fisheries: A Chinese Perspective. Fisheries, 2017, 42, 303-307.	0.6	14
104	Effects of flow fluctuations on the daily and seasonal drift of invertebrates in a tropical river. Annales De Limnologie, 2013, 49, 169-177.	0.6	13
105	Ecological assessment of a southeastern Brazil reservoir. Biota Neotropica, 2015, 15, .	1.0	13
106	Concordance in biological condition and biodiversity between diatom and macroinvertebrate assemblages in Chinese arid-zone streams. Hydrobiologia, 2019, 829, 245-263.	1.0	12
107	Non-wadeable river bioassessment: spatial variation of benthic diatom assemblages in Pacific Northwest rivers, USA. Hydrobiologia, 2012, 684, 241-260.	1.0	11
108	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

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109	Incorporating costs, thresholds and spatial extents for selecting stream bioindicators in an ecotone between two Brazilian biodiversity hotspots. Ecological Indicators, 2021, 127, 107761.	2.6	11
110	Land-use changes affect the functional structure of stream fish assemblages in the Brazilian Savanna. Neotropical Ichthyology, 2021, 19, .	0.5	11
111	Physical habitat in conterminous US streams and Rivers, part 2: A quantitative assessment of habitat condition. Ecological Indicators, 2022, 141, 109047.	2.6	11
112	Beta diversity of aquatic macroinvertebrate assemblages associated with leaf patches in neotropical montane streams. Ecology and Evolution, 2021, 11, 2551-2560.	0.8	10
113	Benthic macroinvertebrate assemblages detect the consequences of a sewage spill: a case study of a South American environmental challenge. Limnology, 2022, 23, 181-194.	0.8	10
114	Bioassessments to Detect Changes in Pacific Northwest River Fish Assemblages: A Malheur River Case Study. Northwest Science, 2008, 82, 251-258.	0.1	9
115	Assessment of disturbance at three spatial scales in two large tropical reservoirs. Journal of Limnology, 2016, 76, 240-252.	0.3	9
116	Scientifically Defensible Fish Conservation and Recovery Plans: Addressing Diffuse Threats and Developing Rigorous Adaptive Management Plans. Fisheries, 2016, 41, 276-285.	0.6	9
117	Ghost nets: A poorly known threat to Brazilian freshwater biodiversity. Anais Da Academia Brasileira De Ciencias, 2022, 94, e20201189.	0.3	9
118	Big data challenges in overcoming Chinaâ€™s water and air pollution: relevant data and indicators. SN Applied Sciences, 2021, 3, 469.	1.5	8
119	Sampling efforts for determining fish species richness in megadiverse tropical regions. Environmental Biology of Fishes, 2021, 104, 1487-1499.	0.4	8
120	A matter of suborder: are Zygoptera and Anisoptera larvae influenced by riparian vegetation in Neotropical Savanna streams?. Hydrobiologia, 2021, 848, 4433-4443.	1.0	7
121	The role of secondary riparian forests for conserving fish assemblages in eastern Amazon streams. Hydrobiologia, 2022, 849, 4529-4546.	1.0	6
122	Temporal Variability of Macroinvertebrate Assemblages in a Mediterranean Coastal Stream: Implications for Bioassessment. Neotropical Entomology, 2021, 50, 873-885.	0.5	6
123	Measuring stream habitat conditions: Can remote sensing substitute for field data?. Science of the Total Environment, 2021, 788, 147617.	3.9	6
124	Level and extent of mercury contamination in Oregon, USA, lotic fish. Environmental Toxicology and Chemistry, 2002, 21, 2157-64.	2.2	5
125	Congruence and responsiveness in the taxonomic compositions of Amazonian aquatic macroinvertebrate and fish assemblages. Hydrobiologia, 2022, 849, 2281-2298.	1.0	5
126	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

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127	Correspondence between a recreational fishery index and ecological condition for U.S.A. streams and rivers. Fisheries Research, 2021, 233, 105749.	0.9	4
128	Biological assessment of western USA sandy bottom rivers based on modeling historical and current fish and macroinvertebrate data. River Research and Applications, 0, , .	0.7	3
129	A review of potential conservation and fisheries benefits of breaching four dams in the Lower Snake River (Washington, USA). , 2022, 1, 100030.		3
130	Introduction to the Special Issue on Ethics and Advocacy. Fisheries, 2017, 42, 347-349.	0.6	2
131	<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
132	AFS Adapts and Remains Relevant in the Digital World. Fisheries, 2020, 45, 184-193.	0.6	1
133	Major Research and Monitoring Needs for Urban Streams and Watersheds. , 2014, , 243-252.		1
134	Why advocateâ€”and how?. , 2021, , 177-197.		0