

William H Clements

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

102
papers

4,056
citations

40
h-index

62
g-index

111
ext. papers

4,488
ext. citations

4.9
avg, IF

5.65
L-index

#	Paper	IF	Citations
102	HEAVY METALS STRUCTURE BENTHIC COMMUNITIES IN COLORADO MOUNTAIN STREAMS 2000 , 10, 626-638		258
101	Community responses to contaminants: using basic ecological principles to predict ecotoxicological effects. <i>Environmental Toxicology and Chemistry</i> , 2009 , 28, 1789-800	3.8	230
100	Combined and interactive effects of global climate change and toxicants on populations and communities. <i>Environmental Toxicology and Chemistry</i> , 2013 , 32, 49-61	3.8	213
99	Thresholds, breakpoints, and nonlinearity in freshwaters as related to management. <i>Journal of the North American Benthological Society</i> , 2010 , 29, 988-997		137
98	Benthic Invertebrate Community Responses to Heavy Metals in the Upper Arkansas River Basin, Colorado. <i>Journal of the North American Benthological Society</i> , 1994 , 13, 30-44		127
97	SMALL-SCALE EXPERIMENTS SUPPORT CAUSAL RELATIONSHIPS BETWEEN METAL CONTAMINATION AND MACROINVERTEBRATE COMMUNITY RESPONSES 2004 , 14, 954-967		125
96	Resistance and resilience of stream insect communities to repeated hydrologic disturbances after a wildfire. <i>Freshwater Biology</i> , 2004 , 49, 1243-1259	3.1	96
95	Using SiZer to detect thresholds in ecological data. <i>Frontiers in Ecology and the Environment</i> , 2009 , 7, 190-195	5.5	92
94	Assessment of the Impact of Heavy Metals on Benthic Communities at the Clinch River (Virginia): Evaluation of an Index of Community Sensitivity. <i>Canadian Journal of Fisheries and Aquatic Sciences</i> , 1992 , 49, 1686-1694	2.4	92
93	Toxicity of proton-metal mixtures in the field: linking stream macroinvertebrate species diversity to chemical speciation and bioavailability. <i>Aquatic Toxicology</i> , 2010 , 100, 112-9	5.1	88
92	Effects of heavy metals on benthic macroinvertebrate communities in New Zealand streams. <i>Environmental Toxicology and Chemistry</i> , 1998 , 17, 2338-2346	3.8	87
91	Effects of major ions on natural benthic communities: an experimental assessment of the US Environmental Protection Agency aquatic life benchmark for conductivity. <i>Freshwater Science</i> , 2016 , 35, 126-138	2	82
90	Bioaccumulation of heavy metals by benthic invertebrates at the arkansas river, colorado. <i>Environmental Toxicology and Chemistry</i> , 1993 , 12, 1507-1517	3.8	80
89	Leaf litter breakdown, microbial respiration and shredder production in metal-polluted streams. <i>Freshwater Biology</i> , 2005 , 50, 380-390	3.1	78
88	How do aquatic communities respond to contaminants? It depends on the ecological context. <i>Environmental Toxicology and Chemistry</i> , 2012 , 31, 1932-40	3.8	76
87	Responses of aquatic insects to Cu and Zn in stream microcosms: understanding differences between single species tests and field responses. <i>Environmental Science & Technology</i> , 2013 , 47, 7506-13	10.3	73
86	Integrating effects of contaminants across levels of biological organization: an overview. <i>Hydrobiologia</i> , 2000 , 7, 113-116		73

85	Benthic invertebrate metals exposure, accumulation, and community-level effects downstream from a hard-rock mine site. <i>Environmental Toxicology and Chemistry</i> , 1999 , 18, 299-307	3.8	72
84	Effects of Heavy Metals on a Macroinvertebrate Assemblage from a Rocky Mountain Stream in Experimental Microcosms. <i>Journal of the North American Benthological Society</i> , 1994 , 13, 511-523		72
83	Growth and secondary production of aquatic insects along a gradient of Zn contamination in Rocky Mountain streams. <i>Journal of the North American Benthological Society</i> , 2003 , 22, 582-597		71
82	RESPONSES OF DIATOM COMMUNITIES TO HEAVY METALS IN STREAMS: THE INFLUENCE OF LONGITUDINAL VARIATION 1998 , 8, 631-644		71
81	Assessing the influence of water and substratum quality on benthic macroinvertebrate communities in a metal-polluted stream: an experimental approach. <i>Freshwater Biology</i> , 2002 , 47, 1766-1778	3.1	69
80	Sensitivity and variability of metrics used in biological assessments of running waters. <i>Environmental Toxicology and Chemistry</i> , 1999 , 18, 285-291	3.8	68
79	Integrated laboratory and field approach for assessing impacts of heavy metals at the Arkansas River, Colorado. <i>Environmental Toxicology and Chemistry</i> , 1994 , 13, 397-404	3.8	67
78	Development of a new toxic-unit model for the bioassessment of metals in streams. <i>Environmental Toxicology and Chemistry</i> , 2010 , 29, 2432-42	3.8	60
77	The influence of elevation on benthic community responses to heavy metals in Rocky Mountain streams. <i>Canadian Journal of Fisheries and Aquatic Sciences</i> , 1995 , 52, 1966-1977	2.4	60
76	Sensitivity to acidic pH in benthic invertebrate assemblages with different histories of exposure to metals. <i>Journal of the North American Benthological Society</i> , 2000 , 19, 112-127		58
75	Size-dependent response of macroinvertebrates to metals in experimental streams. <i>Environmental Toxicology and Chemistry</i> , 1996 , 15, 1352-1356	3.8	57
74	Integrating observational and experimental approaches to demonstrate causation in stream biomonitoring studies. <i>Environmental Toxicology and Chemistry</i> , 2002 , 21, 1138-1146	3.8	56
73	The influence of copper exposure on predator-prey interactions in aquatic insect communities. <i>Freshwater Biology</i> , 1989 , 21, 483-488	3.1	54
72	Simulation of metals transport and toxicity at a mine-impacted watershed: California Gulch, Colorado. <i>Environmental Science & Technology</i> , 2006 , 40, 6996-7004	10.3	51
71	Use of ecological thresholds to assess recovery in lotic ecosystems. <i>Journal of the North American Benthological Society</i> , 2010 , 29, 1017-1023		48
70	The cost of tolerance: sensitivity of stream benthic communities to UV-B and metals 2007 , 17, 365-75		48
69	The use of in situ and stream microcosm experiments to assess population- and community-level responses to metals. <i>Environmental Toxicology and Chemistry</i> , 2006 , 25, 2306-12	3.8	48
68	Quantifying restoration success and recovery in a metal-polluted stream: a 17-year assessment of physicochemical and biological responses. <i>Journal of Applied Ecology</i> , 2010 , 47, 899-910	5.8	47

67	Critical tissue residue approach linking accumulated metals in aquatic insects to population and community-level effects. <i>Environmental Science & Technology</i> , 2011 , 45, 7004-10	10.3	45
66	Effects of Metals on Stream Macroinvertebrate Assemblages from Different Altitudes 1996 , 6, 472-481		45
65	Translating ecological risk to ecosystem service loss. <i>Integrated Environmental Assessment and Management</i> , 2009 , 5, 500-14	2.5	44
64	Structural alterations in aquatic insect communities exposed to copper in laboratory streams. <i>Environmental Toxicology and Chemistry</i> , 1988 , 7, 715-722	3.8	43
63	Photochemical control of copper complexation by dissolved organic matter in Rocky Mountain streams, Colorado. <i>Limnology and Oceanography</i> , 2007 , 52, 766-779	4.8	38
62	Structural responses of benthic macroinvertebrate communities from different stream orders to zinc. <i>Environmental Toxicology and Chemistry</i> , 1994 , 13, 389-395	3.8	38
61	Toxicity and bioaccumulation of a mixture of heavy metals in <i>Chironomus tentans</i> (Diptera: Chironomidae) in synthetic sediment. <i>Environmental Toxicology and Chemistry</i> , 1997 , 16, 317-327	3.8	36
60	Changes in dissolved organic material determine exposure of stream benthic communities to UV-B radiation and heavy metals: implications for climate change. <i>Global Change Biology</i> , 2008 , 14, 2201-2214 ^{11.4}		35
59	Geologic processes influence the effects of mining on aquatic ecosystems 2012 , 22, 870-9		34
58	Effects of Heavy Metals on Prey Abundance, Feeding Habits, and Metal Uptake of Brown Trout in the Arkansas River, Colorado. <i>Transactions of the American Fisheries Society</i> , 1997 , 126, 774-785	1.7	33
57	Perspectives on the context-dependency of stream community responses to contaminants. <i>Freshwater Biology</i> , 2016 , 61, 2162-2170	3.1	31
56	Modernizing Water Quality Criteria in the United States: A Need to Expand the Definition of Acceptable Data. <i>Environmental Toxicology and Chemistry</i> , 2017 , 36, 285-291	3.8	30
55	Estimating risks to aquatic life using quantile regression. <i>Freshwater Science</i> , 2012 , 31, 709-723	2	30
54	Influence of ultraviolet-B radiation on the drift response of stream invertebrates. <i>Freshwater Biology</i> , 1997 , 37, 485-492	3.1	27
53	Metamorphosis Affects Metal Concentrations and Isotopic Signatures in a Mayfly (<i>Baetis tricaudatus</i>): Implications for the Aquatic-Terrestrial Transfer of Metals. <i>Environmental Science & Technology</i> , 2017 , 51, 2438-2446	10.3	26
52	Quantifying Differences in Responses of Aquatic Insects to Trace Metal Exposure in Field Studies and Short-Term Stream Mesocosm Experiments. <i>Environmental Science & Technology</i> , 2018 , 52, 4378-4384 ²⁵	10.3	25
51	Comparison of different predictors of exposure for modeling impacts of metal mixtures on macroinvertebrates in stream microcosms. <i>Aquatic Toxicology</i> , 2013 , 132-133, 151-6	5.1	25
50	The Use of Field and Mesocosm Experiments to Quantify Effects of Physical and Chemical Stressors in Mining-Contaminated Streams. <i>Environmental Science & Technology</i> , 2016 , 50, 7825-33	10.3	22

49	METAL TOLERANCE AND PREDATOR-PREY INTERACTIONS IN BENTHIC MACROINVERTEBRATE STREAM COMMUNITIES 1999 , 9, 1073-1084		20
48	Colonization, variability, and the use of substratum-filled trays for biomonitoring benthic communities. <i>Hydrobiologia</i> , 1989 , 173, 45-53	2.4	20
47	Validation of Bioavailability-Based Toxicity Models for Metals. <i>Environmental Toxicology and Chemistry</i> , 2020 , 39, 101-117	3.8	20
46	Influence of total organic carbon and UV-B radiation on zinc toxicity and bioaccumulation in aquatic communities. <i>Environmental Science & Technology</i> , 2004 , 38, 6371-6	10.3	17
45	Transforming ecosystems: When, where, and how to restore contaminated sites. <i>Integrated Environmental Assessment and Management</i> , 2016 , 12, 273-83	2.5	17
44	Landscape attributes, dissolved organic C, and metal bioaccumulation in aquatic macroinvertebrates (Arkansas River Basin, Colorado). <i>Journal of the North American Benthological Society</i> , 2004 , 23, 327-339		16
43	Effects of magnesium chloride road deicer on montane stream benthic communities. <i>Hydrobiologia</i> , 2017 , 799, 193-202	2.4	11
42	Structural and functional responses of periphyton and macroinvertebrate communities to ferric Fe, Cu, and Zn in stream mesocosms. <i>Environmental Toxicology and Chemistry</i> , 2018 , 37, 1320-1329	3.8	11
41	Responses of benthic macroinvertebrate communities to natural geothermal discharges in Yellowstone National Park, USA. <i>Aquatic Ecology</i> , 2011 , 45, 137-149	1.9	11
40	Stream Mesocosm Experiments Show Significant Differences in Sensitivity of Larval and Emerging Adults to Metals. <i>Environmental Science & Technology</i> , 2019 , 53, 8362-8370	10.3	9
39	Ecological Effects of Biochar on the Structure and Function of Stream Benthic Communities. <i>Environmental Science & Technology</i> , 2015 , 49, 14649-54	10.3	9
38	How to Link Field Observations with Causality? Field and Experimental Approaches Linking Chemical Pollution with Ecological Alterations. <i>Handbook of Environmental Chemistry</i> , 2012 , 181-218	0.8	9
37	Influence of Metal Contamination and Sediment Deposition on Benthic Invertebrate Colonization at the North Fork Clear Creek Superfund Site, Colorado, USA. <i>Environmental Science & Technology</i> , 2018 , 52, 7072-7080	10.3	9
36	Integrating observational and experimental approaches to demonstrate causation in stream biomonitoring studies. <i>Environmental Toxicology and Chemistry</i> , 2002 , 21, 1138-46	3.8	9
35	Indirect Effects of Iron Oxide on Stream Benthic Communities: Capturing Ecological Complexity with Controlled Mesocosm Experiments. <i>Environmental Science & Technology</i> , 2019 , 53, 11532-11540	10.3	8
34	The influence of metal exposure history and ultraviolet-B radiation on benthic communities in Colorado Rocky Mountain streams. <i>Journal of the North American Benthological Society</i> , 2008 , 27, 120-134		8
33	Effects of heavy metals on benthic macroinvertebrate communities in New Zealand streams 1998 , 17, 2338		8
32	Integrating observational and experimental approaches to demonstrate causation in stream biomonitoring studies 2002 , 21, 1138		8

31	Integrated laboratory and field approach for assessing impacts of heavy metals at the Arkansas River, Colorado 1994 , 13, 397		7
30	Size-Dependent Sensitivity of Aquatic Insects to Metals. <i>Environmental Science & Technology</i> , 2020 , 54, 955-964	10.3	7
29	Sensitivity and variability of metrics used in biological assessments of running waters 1999 , 18, 285		6
28	Benthic invertebrate metals exposure, accumulation, and community-level effects downstream from a hard-rock mine site 1999 , 18, 299		6
27	Integrating Results of Field Biomonitoring and Mesocosm Experiments To Validate Postspill Impacts of Petroleum Hydrocarbons on Stream Benthic Communities. <i>Environmental Science & Technology</i> , 2018 , 52, 13584-13590	10.3	6
26	Resilience and regime shifts: Do novel communities impede ecological recovery in a historically metal-contaminated stream?. <i>Journal of Applied Ecology</i> , 2019 , 56, 2698-2709	5.8	5
25	Assessment of potential mercury toxicity to native invertebrates in a high-gradient stream. <i>Integrated Environmental Assessment and Management</i> , 2019 , 15, 374-384	2.5	5
24	Comparison of dietary mercury exposure in two sympatric top predator fishes, largemouth bass and northern pike: a bioenergetics modeling approach. <i>Hydrobiologia</i> , 2002 , 9, 137-147		5
23	Size-dependent response of macroinvertebrates to metals in experimental streams 1996 , 15, 1352		4
22	Bioaccumulation of heavy metals by benthic invertebrates at the arkansas river, colorado 1993 , 12, 1507		4
21	Structural responses of benthic macroinvertebrate communities from different stream orders to zinc 1994 , 13, 389		4
20	An introduced plant affects aquatic-derived carbon in the diets of riparian birds. <i>PLoS ONE</i> , 2018 , 13, e0207389	3.7	4
19	Context-Dependent Responses of Aquatic Insects to Metals and Metal Mixtures: A Quantitative Analysis Summarizing 24 Yr of Stream Mesocosm Experiments. <i>Environmental Toxicology and Chemistry</i> , 2019 , 38, 2486-2496	3.8	3
18	Spectators or participants: How can SETAC become more engaged in international climate change research programs?. <i>Environmental Toxicology and Chemistry</i> , 2017 , 36, 1971-1977	3.8	3
17	Structural alterations in aquatic insect communities exposed to copper in laboratory streams 1988 , 7, 715		3
16	Long-term monitoring reveals convergent patterns of recovery from mining contamination across 4 western US watersheds. <i>Freshwater Science</i> , 2021 , 40, 407-426	2	3
15	Before-After Control-Impact field surveys and novel experimental approaches provide valuable insights for characterizing stream recovery from acid mine drainage. <i>Science of the Total Environment</i> , 2021 , 771, 145419	10.2	2
14	Effects of measurement error on the strength of concentration-response relationships in aquatic toxicology. <i>Ecotoxicology</i> , 2009 , 18, 824-8	2.9	1

- 13 A Continuous Need To Determine What We Should Protect In Ecological Risk Assessments. *Environmental Science & Technology*, **2015**, 49, 7520-1 10.3 0
- 12 Response of stream ecosystem structure to heavy metal pollution: context-dependency of top-down control by fish. *Aquatic Sciences*, **2022**, 84, 1 2.5 0
- 11 The authorsVreply. *Environmental Toxicology and Chemistry*, **2017**, 36, 1425-1426 3.8
- 10 Experimental Approaches in Community Ecology and Ecotoxicology **2006**, 99-140
- 9 Introduction to Community Ecotoxicology **2006**, 1-22
- 8 Ecotoxicological Experiments in River Pollution Assessment. *Water Quality Measurements Series*, **2006**, 241-259
- 7 Biotic and Abiotic Factors that Regulate Communities **2006**, 23-60
- 6 Biomonitoring and the Responses of Communities to Contaminants **2006**, 61-98
- 5 Application of Multimetric and Multivariate Approaches in Community Ecotoxicology **2006**, 141-166
- 4 Disturbance Ecology and the Responses of Communities to Contaminants **2006**, 167-212
- 3 Community Responses to Global and Atmospheric Stressors **2006**, 213-271
- 2 Trophic Structure, Food Webs, and Contaminant Transport **2006**, 273-321
- 1 Ecological Effects of Mining on Stream Ecosystems **2021**,