

# Cole W Matson

## List of Publications by Year in descending order

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79  
papers

3,305  
citations

147801

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79  
docs citations

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times ranked

4613  
citing authors

#	ARTICLE	IF	CITATIONS
1	Long-Term Transformation and Fate of Manufactured Ag Nanoparticles in a Simulated Large Scale Freshwater Emergent Wetland. <i>Environmental Science &amp; Technology</i> , 2012, 46, 7027-7036.	10.0	351
2	Insights into the Evolution of Longevity from the Bowhead Whale Genome. <i>Cell Reports</i> , 2015, 10, 112-122.	6.4	280
3	Adaptive introgression enables evolutionary rescue from extreme environmental pollution. <i>Science</i> , 2019, 364, 455-457.	12.6	184
4	Biotic and Abiotic Interactions in Aquatic Microcosms Determine Fate and Toxicity of Ag Nanoparticles. Part 1. Aggregation and Dissolution. <i>Environmental Science &amp; Technology</i> , 2012, 46, 6915-6924.	10.0	173
5	Emerging Contaminant or an Old Toxin in Disguise? Silver Nanoparticle Impacts on Ecosystems. <i>Environmental Science &amp; Technology</i> , 2014, 48, 5229-5236.	10.0	138
6	Biotic and Abiotic Interactions in Aquatic Microcosms Determine Fate and Toxicity of Ag Nanoparticles: Part 2—Toxicity and Ag Speciation. <i>Environmental Science &amp; Technology</i> , 2012, 46, 6925-6933.	10.0	128
7	AHR2 mediates cardiac teratogenesis of polycyclic aromatic hydrocarbons and PCB-126 in Atlantic killifish ( <i>Fundulus heteroclitus</i> ). <i>Aquatic Toxicology</i> , 2010, 99, 232-240.	4.0	106
8	Synergistic induction of AHR regulated genes in developmental toxicity from co-exposure to two model PAHs in zebrafish. <i>Aquatic Toxicology</i> , 2007, 85, 241-250.	4.0	98
9	Meditations on the Ubiquity and Mutability of Nano-Sized Materials in the Environment. <i>ACS Nano</i> , 2011, 5, 8466-8470.	14.6	77
10	Deep genetic subdivision within a continuously distributed and highly vagile marine mammal, the Steller's sea lion ( <i>Eumetopias jubatus</i> ). <i>Molecular Ecology</i> , 2006, 15, 2821-2832.	3.9	75
11	Evolved resistance to PCB- and PAH-induced cardiac teratogenesis, and reduced CYP1A activity in Gulf killifish ( <i>Fundulus grandis</i> ) populations from the Houston Ship Channel, Texas. <i>Aquatic Toxicology</i> , 2014, 150, 210-219.	4.0	62
12	EFFECTS OF CONTAMINANT EXPOSURE ON REPRODUCTIVE SUCCESS OF OSPREYS ( <i>PANDION HALIAETUS</i> ) NESTING IN DELAWARE RIVER AND BAY, USA. <i>Environmental Toxicology and Chemistry</i> , 2005, 24, 617.	4.3	61
13	EXPOSURE AND EFFECTS OF 2,3,7,8-TETRACHLORODIBENZO-p-DIOXIN IN TREE SWALLOWS ( <i>TACHYCINETA</i> ) Tj ETQq1 1 0.784314 rgB Toxicology and Chemistry, 2005, 24, 93.	4.3	60
14	Fluoranthene, but not benzo[a]pyrene, interacts with hypoxia resulting in pericardial effusion and lordosis in developing zebrafish. <i>Chemosphere</i> , 2008, 74, 149-154.	8.2	59
15	Evolutionary Toxicology: Population-Level Effects of Chronic Contaminant Exposure on the Marsh Frogs ( <i>Rana ridibunda</i> ) of Azerbaijan. <i>Environmental Health Perspectives</i> , 2006, 114, 547-552.	6.0	58
16	Size-Based Differential Transport, Uptake, and Mass Distribution of Ceria (CeO <sub>2</sub> ) Nanoparticles in Wetland Mesocosms. <i>Environmental Science &amp; Technology</i> , 2018, 52, 9768-9776.	10.0	52
17	TOXICITY OF GLYPHOSATE AS GLYPRO® AND LI700 TO RED-EARED SLIDER ( <i>TRACHEMYS SCRIPTA ELEGANS</i> ) EMBRYOS AND EARLY HATCHLINGS. <i>Environmental Toxicology and Chemistry</i> , 2006, 25, 2768.	4.3	48
18	Dietary CdSe/ZnS quantum dot exposure in estuarine fish: Bioavailability, oxidative stress responses, reproduction, and maternal transfer. <i>Aquatic Toxicology</i> , 2014, 148, 27-39.	4.0	48

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19	Evolutionary toxicology: Toward a unified understanding of life's response to toxic chemicals. <i>Evolutionary Applications</i> , 2017, 10, 745-751.	3.1	48
20	Consequences of polluted environments on population structure: the bank vole ( <i>Clethrionomys</i> ) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 7	2.4	47
21	Development of the morpholino gene knockdown technique in <i>Fundulus heteroclitus</i> : A tool for studying molecular mechanisms in an established environmental model. <i>Aquatic Toxicology</i> , 2008, 87, 289-295.	4.0	47
22	VARIATION OF MITOCHONDRIAL CONTROL REGION SEQUENCES OF STELLER SEA LIONS: THE THREE-STOCK HYPOTHESIS. <i>Journal of Mammalogy</i> , 2005, 86, 1075-1084.	1.3	45
23	Genetic diversity of <i>Clethrionomys glareolus</i> populations from highly contaminated sites in the Chernobyl region, Ukraine. <i>Environmental Toxicology and Chemistry</i> , 2000, 19, 2130-2135.	4.3	42
24	Effects of methylmercury exposure on glutathione metabolism, oxidative stress, and chromosomal damage in captive-reared common loon ( <i>Gavia immer</i> ) chicks. <i>Environmental Pollution</i> , 2008, 156, 732-738.	7.5	40
25	DNA Sequence Variation in the Mitochondrial Control Region of Red-Backed Voles ( <i>Clethrionomys</i> ). <i>Molecular Biology and Evolution</i> , 2001, 18, 1494-1501.	8.9	39
26	Chromosomal Damage in Two Species of Aquatic Turtles ( <i>Emys orbicularis</i> and <i>Mauremys caspica</i> ) Inhabiting Contaminated Sites in Azerbaijan. <i>Ecotoxicology</i> , 2005, 14, 513-525.	2.4	39
27	Polychlorinated biphenyl (PCB) contamination in Galveston Bay, Texas: Comparing concentrations and profiles in sediments, passive samplers, and fish. <i>Environmental Pollution</i> , 2018, 236, 609-618.	7.5	38
28	Relative Contributions of Copper Oxide Nanoparticles and Dissolved Copper to Cu Uptake Kinetics of Gulf Killifish ( <i>Fundulus grandis</i> ) Embryos. <i>Environmental Science &amp; Technology</i> , 2017, 51, 1395-1404.	10.0	37
29	In situ biomonitoring of PAH-contaminated sediments using juvenile coho salmon ( <i>Oncorhynchus</i> ) Tj ETQq1 1 0.784314 rgBT /Overlock 6.0 34	6.0	34
30	Characterization of the recalcitrant CYP1 phenotype found in Atlantic killifish ( <i>Fundulus</i> ) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 302 Td (h	4.0	34
31	Trace Element Concentrations and Bioindicator Responses in Tree Swallows from Northwestern Minnesota. <i>Environmental Monitoring and Assessment</i> , 2006, 118, 247-266.	2.7	33
32	Harmonizing across environmental nanomaterial testing media for increased comparability of nanomaterial datasets. <i>Environmental Science: Nano</i> , 2020, 7, 13-36.	4.3	32
33	Silver nanoparticle toxicity to Atlantic killifish ( <i>Fundulus heteroclitus</i> ) and <i>Caenorhabditis elegans</i> : A comparison of mesocosm, microcosm, and conventional laboratory studies. <i>Environmental Toxicology and Chemistry</i> , 2015, 34, 275-282.	4.3	29
34	Influence of salinity and pH on bioconcentration of ionizable pharmaceuticals by the gulf killifish, <i>Fundulus grandis</i> . <i>Chemosphere</i> , 2019, 229, 434-442.	8.2	29
35	Differential Reactivity of Copper- and Gold-Based Nanomaterials Controls Their Seasonal Biogeochemical Cycling and Fate in a Freshwater Wetland Mesocosm. <i>Environmental Science &amp; Technology</i> , 2020, 54, 1533-1544.	10.0	29
36	Wildlife toxicology: biomarkers of genotoxic exposures at a hazardous waste site. <i>Ecotoxicology</i> , 2009, 18, 886-898.	2.4	27

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37	Ecotoxicity of bare and coated silver nanoparticles in the aquatic midge, <i>Chironomus riparius</i> . <i>Environmental Toxicology and Chemistry</i> , 2015, 34, 2023-2032.	4.3	27
38	Assessing substitution patterns, rates and homoplasy at HVRI of Steller sea lions, <i>Eumetopias jubatus</i> . <i>Molecular Ecology</i> , 2009, 18, 3379-3393.	3.9	26
39	Salinity-dependent silver nanoparticle uptake and transformation by Atlantic killifish ( <i>Fundulus heteroclitus</i> ). <i>Environmental Toxicology and Chemistry</i> , 2016, 35, 1213-1223.	3.0	26
40	Evolutionary toxicology in an omics world. <i>Evolutionary Applications</i> , 2017, 10, 752-761.	3.1	26
41	GENETIC DIVERSITY OF <i>CLETHRIONOMYS GLAREOLUS</i> POPULATIONS FROM HIGHLY CONTAMINATED SITES IN THE CHORNOBYL REGION, UKRAINE. <i>Environmental Toxicology and Chemistry</i> , 2000, 19, 2130.	4.3	26
42	Evolutionary toxicology: Meta-analysis of evolutionary events in response to chemical stressors. <i>Ecotoxicology</i> , 2016, 25, 1858-1866.	2.4	25
43	Titanium dioxide nanoparticle exposure reduces algal biomass and alters algal assemblage composition in wastewater effluent-dominated stream mesocosms. <i>Science of the Total Environment</i> , 2018, 626, 357-365.	8.0	25
44	In situ effects of pesticides on amphibians in the Sierra Nevada. <i>Ecotoxicology</i> , 2015, 24, 262-278.	2.4	24
45	Dosing, Not the Dose: Comparing Chronic and Pulsed Silver Nanoparticle Exposures. <i>Environmental Science &amp; Technology</i> , 2018, 52, 10048-10056.	10.0	24
46	Evidence of chromosomal damage in common eiders ( <i>Somateria mollissima</i> ) from the Baltic Sea. <i>Marine Pollution Bulletin</i> , 2004, 49, 1066-1071.	5.0	22
47	Press or pulse exposures determine the environmental fate of cerium nanoparticles in stream mesocosms. <i>Environmental Toxicology and Chemistry</i> , 2016, 35, 1213-1223.	4.3	22
48	Cross-resistance in Gulf killifish ( <i>Fundulus grandis</i> ) populations resistant to dioxin-like compounds. <i>Aquatic Toxicology</i> , 2016, 175, 222-231.	4.0	22
49	PATTERNS OF GENOTOXICITY AND CONTAMINANT EXPOSURE: EVIDENCE OF GENOMIC INSTABILITY IN THE MARSH FROGS ( <i>RANA RIDIBUNDA</i> ) OF SUMGAYIT, AZERBAIJAN. <i>Environmental Toxicology and Chemistry</i> , 2005, 24, 2055.	4.3	20
50	Genotoxicity in Atlantic killifish ( <i>Fundulus heteroclitus</i> ) from a PAH-contaminated Superfund site on the Elizabeth River, Virginia. <i>Ecotoxicology</i> , 2011, 20, 1890-1899.	2.4	20
51	Water level management and contaminant exposure to tree swallows nesting on the Upper Mississippi River. <i>Environmental Monitoring and Assessment</i> , 2007, 133, 335-345.	2.7	18
52	Evolutionary toxicology: contaminant-induced genetic mutations in mosquitofish from Sumgayit, Azerbaijan. <i>Ecotoxicology</i> , 2011, 20, 365-376.	2.4	18
53	EROD activity, chromosomal damage, and oxidative stress in response to contaminants exposure in tree swallow ( <i>Tachycineta bicolor</i> ) nestlings from Great Lakes Areas of Concern. <i>Ecotoxicology</i> , 2017, 26, 1392-1407.	2.4	17
54	Ultraviolet treatment and biodegradation of dibenzothiophene: Identification and toxicity of products. <i>Environmental Toxicology and Chemistry</i> , 2010, 29, 2409-2416.	4.3	16

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55	A multi-taxonomic framework for assessing relative petrochemical vulnerability of marine biodiversity in the Gulf of Mexico. <i>Science of the Total Environment</i> , 2021, 763, 142986.	8.0	15
56	Editorial: The Unknown Environmental Tragedy in Sumgayit, Azerbaijan. <i>Ecotoxicology</i> , 2003, 12, 505-508.	2.4	14
57	Periphyton, bivalves and fish differentially accumulate select pharmaceuticals in effluent-dependent stream mesocosms. <i>Science of the Total Environment</i> , 2020, 745, 140882.	8.0	14
58	Population Genetics of Bowhead Whales ( <i>Baleana mysticetus</i> ) in the Western Arctic. <i>Arctic</i> , 2010, 63, .	0.4	13
59	BIOMARKERS OF EXPOSURE AND EFFECTS OF ENVIRONMENTAL CONTAMINANTS ON SWALLOWS NESTING ALONG THE RIO GRANDE, TEXAS, USA. <i>Environmental Toxicology and Chemistry</i> , 2006, 25, 1574.	4.3	12
60	Evolutionary Toxicology: Population Adaptation in Response to Anthropogenic Pollution. , 2015, , 247-277.		11
61	Contaminant Exposure of Barn Swallows Nesting on Bayou D'Inde, Calcasieu Estuary, Louisiana, USA. <i>Environmental Monitoring and Assessment</i> , 2006, 121, 543-560.	2.7	10
62	Copper and Gold Nanoparticles Increase Nutrient Excretion Rates of Primary Consumers. <i>Environmental Science &amp; Technology</i> , 2020, 54, 10170-10180.	10.0	10
63	Legacy and Contaminants of Emerging Concern in Tree Swallows Along an Agricultural to Industrial Gradient: Maumee River, Ohio. <i>Environmental Toxicology and Chemistry</i> , 2020, 39, 1936-1952.	4.3	10
64	Contaminant Exposure and Biomarker Response in Embryos of Black-crowned Night-herons ( <i>Nycticorax nycticorax</i> ) Nesting near Lake Calumet, Illinois. <i>Journal of Great Lakes Research</i> , 2007, 33, 791-805.	1.9	9
65	Silver toxicity across salinity gradients: the role of dissolved silver chloride species ( $AgCl_x$ ) in Atlantic killifish ( <i>Fundulus heteroclitus</i> ) and medaka ( <i>Oryzias latipes</i> ) early life-stage toxicity. <i>Ecotoxicology</i> , 2016, 25, 1105-1118.	2.4	8
66	A non-destructive BFCOD assay for in vivo measurement of cytochrome P450 3A (CYP3A) enzyme activity in fish embryos and larvae. <i>Ecotoxicology</i> , 2017, 26, 809-819.	2.4	8
67	Induced pesticide tolerance results from detoxification pathway priming. <i>Environmental Pollution</i> , 2017, 224, 615-621.	7.5	7
68	A comprehensive petrochemical vulnerability index for marine fishes in the Gulf of Mexico. <i>Science of the Total Environment</i> , 2022, 820, 152892.	8.0	6
69	Chromosomal damage and EROD induction in tree swallows ( <i>Tachycineta bicolor</i> ) along the Upper Mississippi River, Minnesota, USA. <i>Ecotoxicology</i> , 2015, 24, 1028-1039.	2.4	4
70	Exploring Educators' Environmental Education Attitudes and Efficacy: Insights Gleaned from a Texas Wetland Academy. <i>International Journal of Science Education, Part B: Communication and Public Engagement</i> , 2016, 6, 303-324.	1.5	4
71	Adaptation in Polluted Waters: Lessons from Killifish. , 2018, , 355-375.		4
72	In vitro-in vivo biotransformation and phase I metabolite profiling of benzo[a]pyrene in Gulf killifish ( <i>Fundulus grandis</i> ) populations with different exposure histories. <i>Aquatic Toxicology</i> , 2022, 243, 106057.	4.0	4

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73	Potential effects of environmental contaminants on P450 aromatase activity and DNA damage in swallows from the Rio Grande and Somerville, Texas. <i>Ecotoxicology</i> , 2009, 18, 15-21.	2.4	3
74	Validation of a Sulfuric Acid Digestion Method for Inductively Coupled Plasma Mass Spectrometry Quantification of TiO <sub>2</sub> Nanoparticles. <i>Bulletin of Environmental Contamination and Toxicology</i> , 2018, 100, 809-814.	2.7	3
75	Reduced biotransformation of polycyclic aromatic hydrocarbons (PAHs) in pollution-adapted Gulf killifish ( <i>Fundulus grandis</i> ). <i>Science of the Total Environment</i> , 2022, 806, 150854.	8.0	3
76	Characterization of polymorphic microsatellite loci from the two endemic genera of Madagascar Boids, <i>Acrantophis</i> and <i>Sanzinia</i> . <i>Molecular Ecology Notes</i> , 2001, 1, 41-43.	1.7	1
77	Cetacean genome size diversity. <i>Marine Mammal Science</i> , 2019, 35, 1133-1140.	1.8	1
78	Fundamental and applied pursuits in evolutionary toxicology are mutually beneficial: A reply to Hahn (2018). <i>Evolutionary Applications</i> , 2019, 12, 353-353.	3.1	0
79	Oxidative Potential of Chemical Mixtures Extracted from Contaminated Galveston Bay, TX Seafood Using a Human Cell Co-culture Model. <i>Archives of Environmental Contamination and Toxicology</i> , 2020, 78, 149-162.	4.1	0