Nelson J O'driscoll

List of Publications by Year
in descending order

79 papers	2,481 citations	201385 27 h-index	233125 45 g-index
90 all docs	90 docs citations	90 times ranked	2303 citing authors

#	Article	IF	Citations
1	Microbial Reduction and Oxidation of Mercury in Freshwater Lakes. Environmental Science & Technology, 2002, 36, 3064-3068.	4.6	158
2	Mercury Biomagnification through Food Webs Is Affected by Physical and Chemical Characteristics of Lakes. Environmental Science & Technology, 2013, 47, 12047-12053.	4.6	134
3	Photoreactions of Mercury in Surface Ocean Water: Gross Reaction Kinetics and Possible Pathways. Environmental Science & Technology, 2010, 44, 644-649.	4.6	106
4	Mercury in the marine environment of the Canadian Arctic: Review of recent findings. Science of the Total Environment, 2015, 509-510, 67-90.	3.9	106
5	Gross Photoreduction Kinetics of Mercury in Temperate Freshwater Lakes and Rivers:Â Application to a General Model of DGM Dynamics. Environmental Science & Technology, 2006, 40, 837-843.	4.6	91
6	Geographic and Seasonal Variation in Mercury Exposure of the Declining Rusty Blackbird. Condor, 2010, 112, 789-799.	0.7	86
7	Effect of Dissolved Organic Carbon on the Photoproduction of Dissolved Gaseous Mercury in Lakes:Â Potential Impacts of Forestry. Environmental Science & Technology, 2004, 38, 2664-2672.	4.6	85
8	Abiotic Production of Methylmercury by Solar Radiation. Environmental Science & Technology, 2005, 39, 1071-1077.	4.6	82
9	Continuous Analysis of Dissolved Gaseous Mercury (DGM) and Mercury Flux in Two Freshwater Lakes in Kejimkujik Park, Nova Scotia:Â Evaluating Mercury Flux Models with Quantitative Data. Environmental Science & Technology, 2003, 37, 2226-2235.	4.6	77
10	Factors regulating the bioavailability of methylmercury to breeding rusty blackbirds in northeastern wetlands. Environmental Pollution, 2012, 171, 148-154.	3.7	60
11	Mercury in bats from the northeastern United States. Ecotoxicology, 2014, 23, 45-55.	1.1	56
12	The influence of forestry activity on the structure of dissolved organic matter in lakes: Implications for mercury photoreactions. Science of the Total Environment, 2006, 366, 880-893.	3.9	55
13	Methylmercury Biogeochemistry in Freshwater Ecosystems: A Review Focusing on DOM and Photodemethylation. Bulletin of Environmental Contamination and Toxicology, 2018, 100, 14-25.	1.3	53
14	Quantifying the effects of soil temperature, moisture and sterilization on elemental mercury formation in boreal soils. Environmental Pollution, 2014, 193, 138-146.	3.7	51
15	Factors affecting biotic mercury concentrations and biomagnification through lake food webs in the Canadian high Arctic. Science of the Total Environment, 2015, 509-510, 195-205.	3.9	49
16	Analysis of Methyl Mercury Binding to Freshwater Humic and Fulvic Acids by Gel Permeation Chromatography/Hydride Generation ICP-MS. Environmental Science & Technology, 2000, 34, 4039-4043.	4.6	47
17	Mercury bioaccumulation and biomagnification in a small Arctic polynya ecosystem. Science of the Total Environment, 2015, 509-510, 206-215.	3.9	45
18	Continuous analysis of dissolved gaseous mercury in freshwater lakes. Science of the Total Environment, 2003, 304, 285-294.	3.9	41

#	Article	IF	Citations
19	Size distribution of methylmercury associated with particulate and dissolved organic matter in freshwaters. Science of the Total Environment, 2009, 408, 408-414.	3.9	38
20	Title is missing!. Water, Air, and Soil Pollution, 2003, 143, 271-288.	1.1	37
21	Continuous Analysis of Dissolved Gaseous Mercury and Mercury Volatilization in the Upper St. Lawrence River:Â Exploring Temporal Relationships and UV Attenuation. Environmental Science & Technology, 2007, 41, 5342-5348.	4.6	36
22	Mercury and methylmercury bioaccumulation by polychaete worms is governed by both feeding ecology and mercury bioavailability in coastal mudflats. Environmental Pollution, 2013, 176, 18-25.	3.7	34
23	Aerobic Mercury-resistant bacteria alter Mercury speciation and retention in the Tagus Estuary (Portugal). Ecotoxicology and Environmental Safety, 2016, 124, 60-67.	2.9	31
24	Mercury concentrations in feathers of marine birds in Arctic Canada. Marine Pollution Bulletin, 2015, 98, 308-313.	2.3	30
25	Relationships between blood mercury levels, reproduction, and return rate in a small seabird. Ecotoxicology, 2017, 26, 97-103.	1.1	30
26	Mercury bioaccumulation in dragonflies (Odonata: Anisoptera): Examination of life stages and body regions. Environmental Toxicology and Chemistry, 2014, 33, 2047-2054.	2.2	29
27	The ebullition of hydrogen, carbon monoxide, methane, carbon dioxide and total gaseous mercury from the Cornwall Area of Concern. Science of the Total Environment, 2007, 381, 256-262.	3.9	28
28	Methylmercury photodemethylation is inhibited in lakes with high dissolved organic matter. Environmental Pollution, 2018, 232, 392-401.	3.7	28
29	Mercury Speciation and Distribution in Coastal Wetlands and Tidal Mudflats: Relationships with Sulphur Speciation and Organic Carbon. Water, Air, and Soil Pollution, 2011, 220, 313-326.	1.1	27
30	Methylmercury biomagnification in coastal aquatic food webs from western Patagonia and western Antarctic Peninsula. Chemosphere, 2021, 262, 128360.	4.2	27
31	The development and application of a mass balance model for mercury (total, elemental and methyl) using data from a remote lake (Big Dam West, Nova Scotia, Canada) and the multi-species multiplier method. Applied Geochemistry, 2008, 23, 467-481.	1.4	23
32	Mercury concentrations in blood, brain and muscle tissues of coastal and pelagic birds from northeastern Canada. Ecotoxicology and Environmental Safety, 2018, 157, 424-430.	2.9	23
33	Are Methylmercury Concentrations in the Wetlands of Kejimkujik National Park, Nova Scotia, Canada, Dependent on Geology?. Journal of Environmental Quality, 2003, 32, 2085-2094.	1.0	21
34	Modeling the photo-oxidation of dissolved organic matter by ultraviolet radiation in freshwater lakes: Implications for mercury bioavailability. Chemosphere, 2012, 88, 1220-1226.	4.2	21
35	Mercury photochemistry in snow and implications for Arctic ecosystems. Environmental Reviews, 2014, 22, 331-345.	2.1	21
36	Seasonal variation of methylmercury in sediment cores from the Tagus Estuary (Portugal). Marine Pollution Bulletin, 2016, 104, 162-170.	2.3	21

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37	Unveiling the neurotoxicity of methylmercury in fish (Diplodus sargus) through a regional morphometric analysis of brain and swimming behavior assessment. Aquatic Toxicology, 2016, 180, 320-333.	1.9	21
38	Mercury photoreduction and photooxidation in lakes: Effects of filtration and dissolved organic carbon concentration. Journal of Environmental Sciences, 2018, 68, 151-159.	3.2	21
39	The polychaete worm <i>Nereis diversicolor</i> increases mercury lability and methylation in intertidal mudflats. Environmental Toxicology and Chemistry, 2013, 32, 1888-1895.	2.2	20
40	Salt-marsh plants as potential sources of Hg0 into the atmosphere. Atmospheric Environment, 2017, 152, 458-464.	1.9	20
41	Gaseous mercury flux from salt marshes is mediated by solar radiation and temperature. Atmospheric Environment, 2017, 153, 117-125.	1.9	20
42	Oxidative stress profiles in brain point out a higher susceptibility of fish to waterborne divalent mercury compared to dietary organic mercury. Marine Pollution Bulletin, 2017, 122, 110-121.	2.3	20
43	Mercury bioaccumulation in aquatic biota along a salinity gradient in the Saint John River estuary. Journal of Environmental Sciences, 2018, 68, 41-54.	3.2	19
44	Relationships between Potentially Toxic Elements in intertidal sediments and their bioaccumulation by benthic invertebrates. PLoS ONE, 2019, 14, e0216767.	1.1	19
45	Dissolved Gaseous Mercury Concentrations and Mercury Volatilization in a Frozen Freshwater Fluvial Lake. Environmental Science & Technology, 2008, 42, 5125-5130.	4.6	18
46	Dissolved gaseous mercury formation and mercury volatilization in intertidal sediments. Science of the Total Environment, 2017, 603-604, 279-289.	3.9	18
47	Spatial distribution of mercury and other potentially toxic elements using epiphytic lichens in Nova Scotia. Chemosphere, 2020, 241, 125064.	4.2	18
48	Mercury in Arctic snow: Quantifying the kinetics of photochemical oxidation and reduction. Science of the Total Environment, 2015, 509-510, 115-132.	3.9	17
49	Effects of inâ€channel beaver impoundments on mercury bioaccumulation in Rocky Mountain stream food webs. Ecosphere, 2015, 6, 1-17.	1.0	16
50	Photoreducible Mercury Loss from Arctic Snow Is Influenced by Temperature and Snow Age. Environmental Science & Technology, 2015, 49, 12120-12126.	4.6	15
51	Suspension of Multi-Walled Carbon Nanotubes (CNTs) in Freshwaters: Examining the Effect of CNT Size. Water, Air, and Soil Pollution, 2010, 208, 235-241.	1.1	14
52	A Comparison of Mercury Biomagnification through Lacustrine Food Webs Supporting Brook Trout (Salvelinus fontinalis) and Other Salmonid Fishes. Frontiers in Environmental Science, 2016, 4, .	1.5	14
53	Quantifying the effects of photoreactive dissolved organic matter on methylmercury photodemethylation rates in freshwaters. Environmental Toxicology and Chemistry, 2017, 36, 1493-1502.	2.2	13
54	Using sulfur stable isotopes to assess mercury bioaccumulation and biomagnification in temperate lake food webs. Environmental Toxicology and Chemistry, 2017, 36, 661-670.	2.2	13

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55	Methylmercury in tissues of Atlantic sturgeon (Acipenser oxyrhynchus) from the Saint John River, New Brunswick, Canada. Marine Pollution Bulletin, 2018, 126, 250-254.	2.3	12
56	The influence of avian biovectors on mercury speciation in a bog ecosystem. Science of the Total Environment, 2018, 637-638, 264-273.	3.9	12
57	Tissue content of thiol-containing amino acids predicts methylmercury in aquatic invertebrates. Science of the Total Environment, 2019, 688, 567-573.	3.9	12
58	Historical patterns in mercury exposure for North American songbirds. Ecotoxicology, 2020, 29, 1161-1173.	1.1	11
59	Marine pollution in fledged Leach's storm-petrels (Hydrobates leucorhous) from Baccalieu Island, Newfoundland and Labrador, Canada. Marine Pollution Bulletin, 2021, 162, 111842.	2.3	11
60	GIS Modelling of Intertidal Wetland Exposure Characteristics. Journal of Coastal Research, 2011, 275, 44-51.	0.1	10
61	Response of oxidative stress transcripts in the brain of wild yellow perch (Perca flavescens) exposed to an environmental gradient of methylmercury. Comparative Biochemistry and Physiology Part - C: Toxicology and Pharmacology, 2017, 192, 50-58.	1.3	10
62	Increasing chloride concentration causes retention of mercury in melted Arctic snow due to changes in photoreduction kinetics. Journal of Environmental Sciences, 2018, 68, 122-129.	3.2	10
63	The Biogeochemistry and Fate of Mercury in the Environment. Metal Ions in Biological Systems, 2005, 43, 221-238.	0.4	9
64	Assessing the utility of dissolved organic matter photoreactivity as a predictor of in situ methylmercury concentration. Journal of Environmental Sciences, 2018, 68, 160-168.	3.2	7
65	JES Special issue in Mercury Biogeochemistry and Fate. Journal of Environmental Sciences, 2018, 68, 1-4.	3.2	6
66	A Review of Freshwater Invertebrates as Biomonitors of Methylmercury: the Importance of More Complete Physical and Chemical Reporting. Bulletin of Environmental Contamination and Toxicology, 2021, 107, 801-808.	1.3	6
67	Total mercury, methylmercury, phosphate, and sulfate inputs to a bog ecosystem from herring gull (Larus smithsonianus) guano. Ecotoxicology and Environmental Safety, 2021, 226, 112845.	2.9	6
68	Dissolved Gaseous Mercury Production at a Marine Aquaculture Site in the Mercury-Contaminated Marano and Grado Lagoon, Italy. Bulletin of Environmental Contamination and Toxicology, 2019, 103, 218-224.	1.3	5
69	Sediment processes and mercury transport in a frozen freshwater fluvial lake (Lake St. Louis, QC,) Tj ETQq1 1 0.784314 rgBT /Overlock	3.7	4
70	Determining the magnitude of true analytical error in geochemical analysis. Geochemistry: Exploration, Environment, Analysis, 2010, 10, 355-364.	0.5	4
71	Temporal Changes in Photoreducible Mercury, Photoreduction Rates, and the Role of Dissolved Organic Matter in Freshwater Lakes. Bulletin of Environmental Contamination and Toxicology, 2022, 108, 635-640.	1.3	4
72	Response to Comment on â€œMercury Biomagnification through Food Webs Is Affected by Physical and Chemical Characteristics of Lakesâ€. Environmental Science & Technology, 2014, 48, 10526-10527.	4.6	3

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73	Scavenging gulls are biovectors of mercury from industrial wastes in Nova Scotia, Canada. Chemosphere, 2022, 304, 135279.	4.2	3
74	Dissolved Gaseous Mercury Profiles in Freshwaters. ACS Symposium Series, 2002, , 232-245.	0.5	2
75	Effects of coastal managed retreat on mercury biogeochemistry. Environmental Pollution, 2016, 209, 99-106.	3.7	2
76	Methylmercury in caddisflies and mayflies: Influences of water and sediment chemistry. Chemosphere, 2022, 286, 131785.	4.2	2
77	Are There Longitudinal Effects of Forest Harvesting on Carbon Quality and Flow and Methylmercury Bioaccumulation in Primary Consumers of Temperate Stream Networks?. Environmental Toxicology and Chemistry, 2022, , .	2.2	2
78	Editorial For â€œWetlands in a changing Worldâ€. Science of the Total Environment, 2019, 693, 133562.	3.9	0
79	Kejimkujik calibrated catchments: A benchmark dataset for longâ€term impacts of terrestrial and freshwater acidification. Hydrological Processes, 2022, 36, .	1.1	0