

Nathaniel L Scholz

List of Publications by Year in descending order

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96
papers

9,332
citations

36303

51
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43889

91
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all docs

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docs citations

97
times ranked

6144
citing authors

#	ARTICLE	IF	CITATIONS
1	Defects in cardiac function precede morphological abnormalities in fish embryos exposed to polycyclic aromatic hydrocarbons. <i>Toxicology and Applied Pharmacology</i> , 2004, 196, 191-205.	2.8	695
2	A ubiquitous tire rubber-derived chemical induces acute mortality in coho salmon. <i>Science</i> , 2021, 371, 185-189.	12.6	504
3	<i>Deepwater Horizon</i> crude oil impacts the developing hearts of large predatory pelagic fish. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, E1510-8.	7.1	359
4	Aryl Hydrocarbon Receptor-Independent Toxicity of Weathered Crude Oil during Fish Development. <i>Environmental Health Perspectives</i> , 2005, 113, 1755-1762.	6.0	337
5	Sublethal exposure to crude oil during embryonic development alters cardiac morphology and reduces aerobic capacity in adult fish. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 7086-7090.	7.1	293
6	Crude Oil Impairs Cardiac Excitation-Contraction Coupling in Fish. <i>Science</i> , 2014, 343, 772-776.	12.6	284
7	Developmental toxicity of 4-ring polycyclic aromatic hydrocarbons in zebrafish is differentially dependent on AH receptor isoforms and hepatic cytochrome P4501A metabolism. <i>Toxicology and Applied Pharmacology</i> , 2006, 217, 308-321.	2.8	274
8	The Synergistic Toxicity of Pesticide Mixtures: Implications for Risk Assessment and the Conservation of Endangered Pacific Salmon. <i>Environmental Health Perspectives</i> , 2009, 117, 348-353.	6.0	269
9	Olfactory toxicity in fishes. <i>Aquatic Toxicology</i> , 2010, 96, 2-26.	4.0	259
10	Fish embryos are damaged by dissolved PAHs, not oil particles. <i>Aquatic Toxicology</i> , 2008, 88, 121-127.	4.0	240
11	Cardiac Arrhythmia Is the Primary Response of Embryonic Pacific Herring (<i>Clupea pallasii</i>) Exposed to Crude Oil during Weathering. <i>Environmental Science & Technology</i> , 2009, 43, 201-207.	10.0	211
12	Neural defects and cardiac arrhythmia in fish larvae following embryonic exposure to 2,2,4,4-tetrabromodiphenyl ether (PBDE 47). <i>Aquatic Toxicology</i> , 2007, 82, 296-307.	4.0	200
13	Acute Embryonic or Juvenile Exposure to <i>Deepwater Horizon</i> Crude Oil Impairs the Swimming Performance of Mahi-Mahi (<i>Coryphaena hippurus</i>). <i>Environmental Science & Technology</i> , 2014, 48, 7053-7061.	10.0	200
14	COMPARATIVE THRESHOLDS FOR ACETYLCHOLINESTERASE INHIBITION AND BEHAVIORAL IMPAIRMENT IN COHO SALMON EXPOSED TO CHLORPYRIFOS. <i>Environmental Toxicology and Chemistry</i> , 2005, 24, 136.	4.3	185
15	Diazinon disrupts antipredator and homing behaviors in chinook salmon (<i>Oncorhynchus tshawytscha</i>). <i>Environmental Science & Technology</i> , 2011, 45, 1014-1020.	10.784314	180
16	Exxon Valdez to Deepwater Horizon: Comparable toxicity of both crude oils to fish early life stages. <i>Aquatic Toxicology</i> , 2013, 142-143, 303-316.	4.0	174
17	The Developmental Neurotoxicity of Fipronil: Notochord Degeneration and Locomotor Defects in Zebrafish Embryos and Larvae. <i>Toxicological Sciences</i> , 2006, 92, 270-278.	3.1	173
18	A Sensory System at the Interface between Urban Stormwater Runoff and Salmon Survival. <i>Environmental Science & Technology</i> , 2007, 41, 2998-3004.	10.0	159

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19	The effects of weathering and chemical dispersion on Deepwater Horizon crude oil toxicity to mahi-mahi (<i>Coryphaena hippurus</i>) early life stages. <i>Science of the Total Environment</i> , 2016, 543, 644-651.	8.0	159
20	SUBLETHAL EFFECTS OF COPPER ON COHO SALMON: IMPACTS ON NONOVERLAPPING RECEPTOR PATHWAYS IN THE PERIPHERAL OLFACTORY NERVOUS SYSTEM. <i>Environmental Toxicology and Chemistry</i> , 2003, 22, 2266.	4.3	154
21	Cardiac toxicity of 5-ring polycyclic aromatic hydrocarbons is differentially dependent on the aryl hydrocarbon receptor 2 isoform during zebrafish development. <i>Toxicology and Applied Pharmacology</i> , 2011, 257, 242-249.	2.8	153
22	Using High-Resolution Mass Spectrometry to Identify Organic Contaminants Linked to Urban Stormwater Mortality Syndrome in Coho Salmon. <i>Environmental Science & Technology</i> , 2018, 52, 10317-10327.	10.0	149
23	Chemical orientation of lobsters, <i>homarus americanus</i> , in turbulent odor plumes. <i>Journal of Chemical Ecology</i> , 1991, 17, 1293-1307.	1.8	147
24	Effects of the synthetic estrogen, 17 β -ethinylestradiol, on aggression and courtship behavior in male zebrafish (<i>Danio rerio</i>). <i>Aquatic Toxicology</i> , 2009, 91, 346-354.	4.0	144
25	Unexpectedly high mortality in Pacific herring embryos exposed to the 2007 <i>Cosco Busan</i> oil spill in San Francisco Bay. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, E51-8.	7.1	136
26	Very low embryonic crude oil exposures cause lasting cardiac defects in salmon and herring. <i>Scientific Reports</i> , 2015, 5, 13499.	3.3	131
27	The influence of heart developmental anatomy on cardiotoxicity-based adverse outcome pathways in fish. <i>Aquatic Toxicology</i> , 2016, 177, 515-525.	4.0	121
28	A Novel Cardiotoxic Mechanism for a Pervasive Global Pollutant. <i>Scientific Reports</i> , 2017, 7, 41476.	3.3	115
29	A fish of many scales: extrapolating sublethal pesticide exposures to the productivity of wild salmon populations. <i>Ecological Applications</i> , 2009, 19, 2004-2015.	3.8	105
30	DISSOLVED COPPER TRIGGERS CELL DEATH IN THE PERIPHERAL MECHANOSENSORY SYSTEM OF LARVAL FISH. <i>Environmental Toxicology and Chemistry</i> , 2006, 25, 597.	4.3	103
31	Chemosensory Deprivation in Juvenile Coho Salmon Exposed to Dissolved Copper under Varying Water Chemistry Conditions. <i>Environmental Science & Technology</i> , 2008, 42, 1352-1358.	10.0	102
32	Morphological abnormalities and sensorimotor deficits in larval fish exposed to dissolved saxitoxin. <i>Aquatic Toxicology</i> , 2004, 66, 159-170.	4.0	101
33	Odor-evoked field potentials as indicators of sublethal neurotoxicity in juvenile coho salmon (<i>Oncorhynchus kisutch</i>) exposed to copper, chlorpyrifos, or esfenvalerate. <i>Canadian Journal of Fisheries and Aquatic Sciences</i> , 2004, 61, 404-413.	1.4	97
34	Corresponding morphological and molecular indicators of crude oil toxicity to the developing hearts of mahi mahi. <i>Scientific Reports</i> , 2015, 5, 17326.	3.3	93
35	Recurrent Die-Offs of Adult Coho Salmon Returning to Spawn in Puget Sound Lowland Urban Streams. <i>PLoS ONE</i> , 2011, 6, e28013.	2.5	89
36	The NO/cGMP pathway and the development of neural networks in postembryonic lobsters. , 1998, 34, 208-226.		87

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37	Novel adverse outcome pathways revealed by chemical genetics in a developing marine fish. <i>ELife</i> , 2017, 6, .	6.0	87
38	Low-level copper exposures increase visibility and vulnerability of juvenile coho salmon to cutthroat trout predators. <i>Ecological Applications</i> , 2012, 22, 1460-1471.	3.8	84
39	Soil bioretention protects juvenile salmon and their prey from the toxic impacts of urban stormwater runoff. <i>Chemosphere</i> , 2015, 132, 213-219.	8.2	79
40	A Perspective on Modern Pesticides, Pelagic Fish Declines, and Unknown Ecological Resilience in Highly Managed Ecosystems. <i>BioScience</i> , 2012, 62, 428-434.	4.9	76
41	Development of suspect and non-target screening methods for detection of organic contaminants in highway runoff and fish tissue with high-resolution time-of-flight mass spectrometry. <i>Environmental Sciences: Processes and Impacts</i> , 2017, 19, 1185-1196.	3.5	76
42	Elevated temperatures increase the toxicity of pesticide mixtures to juvenile coho salmon. <i>Aquatic Toxicology</i> , 2014, 146, 38-44.	4.0	68
43	Treading Water: Tire Wear Particle Leachate Recreates an Urban Runoff Mortality Syndrome in Coho but Not Chum Salmon. <i>Environmental Science & Technology</i> , 2021, 55, 11767-11774.	10.0	68
44	Pyrethroid insecticides in urban salmon streams of the Pacific Northwest. <i>Environmental Pollution</i> , 2011, 159, 3051-3056.	7.5	65
45	Pesticides, aquatic food webs, and the conservation of Pacific salmon. <i>Frontiers in Ecology and the Environment</i> , 2010, 8, 475-482.	4.0	62
46	Oil spills and fish health: exposing the heart of the matter. <i>Journal of Exposure Science and Environmental Epidemiology</i> , 2011, 21, 3-4.	3.9	61
47	Roads to ruin: conservation threats to a sentinel species across an urban gradient. <i>Ecological Applications</i> , 2017, 27, 2382-2396.	3.8	60
48	Coho salmon spawner mortality in western US urban watersheds: bioinfiltration prevents lethal storm water impacts. <i>Journal of Applied Ecology</i> , 2016, 53, 398-407.	4.0	59
49	Dissolved saxitoxin causes transient inhibition of sensorimotor function in larval Pacific herring (<i>Clupea harengus pallasii</i>). <i>Marine Biology</i> , 2005, 147, 1393-1402.	1.5	58
50	Zebrafish and clean water technology: Assessing soil bioretention as a protective treatment for toxic urban runoff. <i>Science of the Total Environment</i> , 2014, 500-501, 173-180.	8.0	58
51	Estimating the future decline of wild coho salmon populations resulting from early spawner die-offs in urbanizing watersheds of the Pacific Northwest, USA. <i>Integrated Environmental Assessment and Management</i> , 2011, 7, 648-656.	2.9	56
52	Life Histories, Salinity Zones, and Sublethal Contributions of Contaminants to Pelagic Fish Declines Illustrated with a Case Study of San Francisco Estuary, California, USA. <i>Estuaries and Coasts</i> , 2012, 35, 603-621.	2.2	55
53	Effects of water hardness, alkalinity, and dissolved organic carbon on the toxicity of copper to the lateral line of developing fish. <i>Environmental Toxicology and Chemistry</i> , 2009, 28, 1455-1461.	4.3	54
54	Interspecies variation in the susceptibility of adult Pacific salmon to toxic urban stormwater runoff. <i>Environmental Pollution</i> , 2018, 238, 196-203.	7.5	54

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55	DOSE-ADDITIVE INHIBITION OF CHINOOK SALMON ACETYLCHOLINESTERASE ACTIVITY BY MIXTURES OF ORGANOPHOSPHATE AND CARBAMATE INSECTICIDES. <i>Environmental Toxicology and Chemistry</i> , 2006, 25, 1200.	4.3	51
56	Copper-induced olfactory toxicity in salmon and steelhead: Extrapolation across species and rearing environments. <i>Aquatic Toxicology</i> , 2011, 101, 295-297.	4.0	51
57	Molecular Underpinnings of Motor Pattern Generation: Differential Targeting of Shal and Shaker in the Pyloric Motor System. <i>Journal of Neuroscience</i> , 2000, 20, 6619-6630.	3.6	49
58	Embryonic Crude Oil Exposure Impairs Growth and Lipid Allocation in a Keystone Arctic Forage Fish. <i>IScience</i> , 2019, 19, 1101-1113.	4.1	49
59	Potent Phototoxicity of Marine Bunker Oil to Translucent Herring Embryos after Prolonged Weathering. <i>PLoS ONE</i> , 2012, 7, e30116.	2.5	48
60	Neural Network Partitioning by NO and cGMP. <i>Journal of Neuroscience</i> , 2001, 21, 1610-1618.	3.6	45
61	Transcriptional impact of organophosphate and metal mixtures on olfaction: Copper dominates the chlorpyrifos-induced response in adult zebrafish. <i>Aquatic Toxicology</i> , 2011, 102, 205-215.	4.0	43
62	Natural sunlight and residual fuel oils are an acutely lethal combination for fish embryos. <i>Aquatic Toxicology</i> , 2010, 99, 56-64.	4.0	41
63	Nitric oxide and peptide neurohormones activate cGMP synthesis in the crab stomatogastric nervous system. <i>Journal of Neuroscience</i> , 1996, 16, 1614-1622.	3.6	39
64	Landscape Ecotoxicology of Coho Salmon Spawner Mortality in Urban Streams. <i>PLoS ONE</i> , 2011, 6, e23424.	2.5	38
65	Expression of nitric oxide synthase and nitric oxide-sensitive guanylate cyclase in the crustacean cardiac ganglion. <i>Journal of Comparative Neurology</i> , 2002, 454, 158-167.	1.6	36
66	Behavioral impairment and increased predation mortality in cutthroat trout exposed to carbaryl. <i>Marine Ecology - Progress Series</i> , 2007, 329, 1-11.	1.9	36
67	An urban stormwater runoff mortality syndrome in juvenile coho salmon. <i>Aquatic Toxicology</i> , 2019, 214, 105231.	4.0	35
68	Confirmation of Stormwater Bioretention Treatment Effectiveness Using Molecular Indicators of Cardiovascular Toxicity in Developing Fish. <i>Environmental Science & Technology</i> , 2016, 50, 1561-1569.	10.0	34
69	Interactive Neurobehavioral Toxicity of Diazinon, Malathion, and Ethoprop to Juvenile Coho Salmon. <i>Environmental Science & Technology</i> , 2013, 47, 2925-2931.	10.0	31
70	Severe Coal Tar Sealcoat Runoff Toxicity to Fish Is Prevented by Bioretention Filtration. <i>Environmental Science & Technology</i> , 2016, 50, 1570-1578.	10.0	23
71	Predicted transport of pyrethroid insecticides from an urban landscape to surface water. <i>Environmental Toxicology and Chemistry</i> , 2013, 32, 2469-2477.	4.3	22
72	Identification of Nitric Oxide-Sensitive and -Insensitive Forms of Cytoplasmic Guanylate Cyclase. <i>Journal of Neurochemistry</i> , 1997, 69, 1650-1660.	3.9	21

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73	Case Study: The 2010 Deepwater Horizon Oil Spill and Its Environmental Developmental Impacts. , 2018, , 235-283.		20
74	ECOTOXICOLOGY OF ANTICHOLINESTERASE PESTICIDES: DATA GAPS AND RESEARCH CHALLENGES. Environmental Toxicology and Chemistry, 2006, 25, 1185.	4.3	19
75	Barging Effects on Sensory Systems of Chinook Salmon Smolts. Transactions of the American Fisheries Society, 2009, 138, 777-789.	1.4	18
76	A Modeled Comparison of Direct and Food Web-Mediated Impacts of Common Pesticides on Pacific Salmon. PLoS ONE, 2014, 9, e92436.	2.5	17
77	<i>In Response</i>: Scaling polycyclic aromatic hydrocarbon toxicity to fish early life stages: A governmental perspective. Environmental Toxicology and Chemistry, 2015, 34, 459-461.	4.3	17
78	Environmental Pollution and the Fish Heart. Fish Physiology, 2017, 36, 373-433.	0.8	16
79	Low-level embryonic crude oil exposure disrupts ventricular ballooning and subsequent trabeculation in Pacific herring. Aquatic Toxicology, 2021, 235, 105810.	4.0	15
80	Characterizing the Chemical Profile of Biological Decline in Stormwater-Impacted Urban Watersheds. Environmental Science & Technology, 2022, 56, 3159-3169.	10.0	15
81	Legacy habitat contamination as a limiting factor for Chinook salmon recovery in the Willamette Basin, Oregon, USA. PLoS ONE, 2019, 14, e0214399.	2.5	14
82	Chapter XI Invertebrate models for studying NO-mediated signaling. Handbook of Chemical Neuroanatomy, 2000, 17, 417-441.	0.3	13
83	The Challenge : â€œBridging the gapâ€•with fish: Advances in assessing exposure and effects across biological scales. Environmental Toxicology and Chemistry, 2015, 34, 459-459.	4.3	13
84	Crude oil cardiotoxicity to red drum embryos is independent of oil dispersion energy. Chemosphere, 2018, 213, 205-214.	8.2	13
85	Evaluating the Effects of Forestry Herbicides on Fish Development Using Rapid Phenotypic Screens. North American Journal of Fisheries Management, 2009, 29, 975-984.	1.0	12
86	Urban stormwater and crude oil injury pathways converge on the developing heart of a shore-spawning marine forage fish. Aquatic Toxicology, 2020, 229, 105654.	4.0	11
87	Sublethal neurotoxicity of organophosphate insecticides to juvenile coho salmon. Aquatic Toxicology, 2020, 221, 105424.	4.0	11
88	Cardiac remodeling in response to embryonic crude oil exposure involves unconventional NKX family members and innate immunity genes. Journal of Experimental Biology, 2019, 222, .	1.7	9
89	NO/cGMP Signaling and the Flexible Organization of Motor Behavior in Crustaceans1. American Zoologist, 2001, 41, 292-303.	0.7	8
90	NO/cGMP Signaling and the Flexible Organization of Motor Behavior in Crustaceans. American Zoologist, 2001, 41, 292-303.	0.7	6

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91	Ecotoxicological Risk of Mixtures. , 2015, , 441-462.		4
92	The electro-olfactogram. , 2005, , .		4
93	Chemical pollution. , 0, , 149-177.		3
94	Review of and Recommendations for Monitoring Contaminants and their Effects in the San Francisco BayâDelta. San Francisco Estuary and Watershed Science, 2019, 17, .	0.4	3
95	Decreased Growth Rate Associated with Tissue Contaminants in Juvenile Chinook Salmon Out-Migrating through an Industrial Waterway. Environmental Science & Technology, 2021, 55, 9968-9978.	10.0	3
96	The Extension of Molecular and Computational Information to Risk Assessment and Regulatory Decision Making*. , 2006, , 151-180.		1