Nathaniel L Scholz

List of Publications by Year in Descending Order

94 papers	7,374 citations	46 h-index	85 g-index
97 ext. papers	8,249 ext. citations	6.4 avg, IF	5.84 L-index

#	Paper	IF	Citations
94	Low-level embryonic crude oil exposure disrupts ventricular ballooning and subsequent trabeculation in Pacific herring. *Aquatic Toxicology*, **2021**, 235, 105810	5.1	1
93	A ubiquitous tire rubber-derived chemical induces acute mortality in coho salmon. *Science*, **2021**, 371, 185-189	33.3	140
92	Decreased Growth Rate Associated with Tissue Contaminants in Juvenile Chinook Salmon Out-Migrating through an Industrial Waterway. *Environmental Science & Technology*, **2021**, 55, 9968-9978	10.3	
91	Treading Water: Tire Wear Particle Leachate Recreates an Urban Runoff Mortality Syndrome in Coho but Not Chum Salmon. *Environmental Science & Technology*, **2021**, 55, 11767-11774	10.3	11
90	Urban stormwater and crude oil injury pathways converge on the developing heart of a shore-spawning marine forage fish. *Aquatic Toxicology*, **2020**, 229, 105654	5.1	3
89	Sublethal neurotoxicity of organophosphate insecticides to juvenile coho salmon. *Aquatic Toxicology*, **2020**, 221, 105424	5.1	8
88	Embryonic Crude Oil Exposure Impairs Growth and Lipid Allocation in a Keystone Arctic Forage Fish. *IScience*, **2019**, 19, 1101-1113	6.1	24
87	Legacy habitat contamination as a limiting factor for Chinook salmon recovery in the Willamette Basin, Oregon, USA. *PLoS ONE*, **2019**, 14, e0214399	3.7	7
86	An urban stormwater runoff mortality syndrome in juvenile coho salmon. *Aquatic Toxicology*, **2019**, 214, 105231	5.1	12
85	Cardiac remodeling in response to embryonic crude oil exposure involves unconventional NKX family members and innate immunity genes. *Journal of Experimental Biology*, **2019**, 222,	3	5
84	Review of and Recommendations for Monitoring Contaminants and their Effects in the San Francisco Bay Delta. *San Francisco Estuary and Watershed Science*, **2019**, 17,	1.4	1
83	Interspecies variation in the susceptibility of adult Pacific salmon to toxic urban stormwater runoff. *Environmental Pollution*, **2018**, 238, 196-203	9.3	26
82	Crude oil cardiotoxicity to red drum embryos is independent of oil dispersion energy. *Chemosphere*, **2018**, 213, 205-214	8.4	8
81	Case Study: The 2010 Deepwater Horizon Oil Spill and Its Environmental Developmental Impacts **2018**, 235-283		10
80	Using High-Resolution Mass Spectrometry to Identify Organic Contaminants Linked to Urban Stormwater Mortality Syndrome in Coho Salmon. *Environmental Science & Technology*, **2018**, 52, 10317-10327	10.3	75
79	A Novel Cardiotoxic Mechanism for a Pervasive Global Pollutant. *Scientific Reports*, **2017**, 7, 41476	4.9	80
78	Roads to ruin: conservation threats to a sentinel species across an urban gradient **2017**, 27, 2382-2396		32

77	Environmental Pollution and the Fish Heart. *Fish Physiology*, **2017**, 36, 373-433	2	10
76	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. *Environmental Sciences: Processes and Impacts*, **2017**, 19, 1185-1196	4.3	59
75	Novel adverse outcome pathways revealed by chemical genetics in a developing marine fish. *ELife*, **2017**, 6,	8.9	62
74	The influence of heart developmental anatomy on cardiotoxicity-based adverse outcome pathways in fish. *Aquatic Toxicology*, **2016**, 177, 515-25	5.1	84
73	The effects of weathering and chemical dispersion on Deepwater Horizon crude oil toxicity to mahi-mahi (Coryphaena hippurus) early life stages. *Science of the Total Environment*, **2016**, 543, 644-651	10.2	129
72	Coho salmon spawner mortality in western US urban watersheds: bioinfiltration prevents lethal storm water impacts. *Journal of Applied Ecology*, **2016**, 53, 398-407	5.8	36
71	Severe Coal Tar Sealcoat Runoff Toxicity to Fish Is Prevented by Bioretention Filtration. *Environmental Science & Technology*, **2016**, 50, 1570-8	10.3	16
70	Confirmation of Stormwater Bioretention Treatment Effectiveness Using Molecular Indicators of Cardiovascular Toxicity in Developing Fish. *Environmental Science & Technology*, **2016**, 50, 1561-9	10.3	28
69	Soil bioretention protects juvenile salmon and their prey from the toxic impacts of urban stormwater runoff. *Chemosphere*, **2015**, 132, 213-9	8.4	60
68	The challenge: "bridging the gap" with fish: advances in assessing exposure and effects across biological scales. *Environmental Toxicology and Chemistry*, **2015**, 34, 459	3.8	11
67	Ecotoxicological Risk of Mixtures **2015**, 441-462		2
66	In response: scaling polycyclic aromatic hydrocarbon toxicity to fish early life stages: a governmental perspective. *Environmental Toxicology and Chemistry*, **2015**, 34, 459-61	3.8	13
65	Very low embryonic crude oil exposures cause lasting cardiac defects in salmon and herring. *Scientific Reports*, **2015**, 5, 13499	4.9	101
64	Corresponding morphological and molecular indicators of crude oil toxicity to the developing hearts of mahi mahi. *Scientific Reports*, **2015**, 5, 17326	4.9	77
63	Deepwater Horizon crude oil impacts the developing hearts of large predatory pelagic fish. *Proceedings of the National Academy of Sciences of the United States of America*, **2014**, 111, E1510-8	11.5	304
62	Crude oil impairs cardiac excitation-contraction coupling in fish. *Science*, **2014**, 343, 772-6	33.3	241
61	Acute embryonic or juvenile exposure to Deepwater Horizon crude oil impairs the swimming performance of mahi-mahi (Coryphaena hippurus). *Environmental Science & Technology*, **2014**, 48, 7053-61	10.3	167
60	Zebrafish and clean water technology: assessing soil bioretention as a protective treatment for toxic urban runoff. *Science of the Total Environment*, **2014**, 500-501, 173-80	10.2	45

59	A modeled comparison of direct and food web-mediated impacts of common pesticides on Pacific salmon. *PLoS ONE*, **2014**, 9, e92436	3.7	17
58	Elevated temperatures increase the toxicity of pesticide mixtures to juvenile coho salmon. *Aquatic Toxicology*, **2014**, 146, 38-44	5.1	48
57	Exxon Valdez to Deepwater Horizon: comparable toxicity of both crude oils to fish early life stages. *Aquatic Toxicology*, **2013**, 142-143, 303-16	5.1	151
56	Interactive neurobehavioral toxicity of diazinon, malathion, and ethoprop to juvenile coho salmon. *Environmental Science & Technology*, **2013**, 47, 2925-31	10.3	26
55	Predicted transport of pyrethroid insecticides from an urban landscape to surface water. *Environmental Toxicology and Chemistry*, **2013**, 32, 2469-77	3.8	17
54	Life Histories, Salinity Zones, and Sublethal Contributions of Contaminants to Pelagic Fish Declines Illustrated with a Case Study of San Francisco Estuary, California, USA. *Estuaries and Coasts*, **2012**, 35, 603-621	2.8	44
53	Unexpectedly high mortality in Pacific herring embryos exposed to the 2007 Cosco Busan oil spill in San Francisco Bay. *Proceedings of the National Academy of Sciences of the United States of America*, **2012**, 109, E51-8	11.5	111
52	Low-level copper exposures increase visibility and vulnerability of juvenile coho salmon to cutthroat trout predators **2012**, 22, 1460-71		71
51	A Perspective on Modern Pesticides, Pelagic Fish Declines, and Unknown Ecological Resilience in Highly Managed Ecosystems. *BioScience*, **2012**, 62, 428-434	5.7	58
50	Potent phototoxicity of marine bunker oil to translucent herring embryos after prolonged weathering. *PLoS ONE*, **2012**, 7, e30116	3.7	41
49	Copper-induced olfactory toxicity in salmon and steelhead: extrapolation across species and rearing environments. *Aquatic Toxicology*, **2011**, 101, 295-7	5.1	46
48	Transcriptional impact of organophosphate and metal mixtures on olfaction: copper dominates the chlorpyrifos-induced response in adult zebrafish. *Aquatic Toxicology*, **2011**, 102, 205-15	5.1	38
47	Landscape ecotoxicology of coho salmon spawner mortality in urban streams. *PLoS ONE*, **2011**, 6, e23424	3.7	32
46	Oil spills and fish health: exposing the heart of the matter. *Journal of Exposure Science and Environmental Epidemiology*, **2011**, 21, 3-4	6.7	50
45	Cardiac toxicity of 5-ring polycyclic aromatic hydrocarbons is differentially dependent on the aryl hydrocarbon receptor 2 isoform during zebrafish development. *Toxicology and Applied Pharmacology*, **2011**, 257, 242-9	4.6	135
44	Pyrethroid insecticides in urban salmon streams of the Pacific Northwest. *Environmental Pollution*, **2011**, 159, 3051-6	9.3	56
43	Estimating the future decline of wild coho salmon populations resulting from early spawner die-offs in urbanizing watersheds of the Pacific Northwest, USA. *Integrated Environmental Assessment and Management*, **2011**, 7, 648-56	2.5	43
42	Sublethal exposure to crude oil during embryonic development alters cardiac morphology and reduces aerobic capacity in adult fish. *Proceedings of the National Academy of Sciences of the United States of America*, **2011**, 108, 7086-90	11.5	253

41	Recurrent die-offs of adult coho salmon returning to spawn in Puget Sound lowland urban streams. *PLoS ONE*, **2011**, 6, e28013	3.7	64
40	Pesticides, aquatic food webs, and the conservation of Pacific salmon. *Frontiers in Ecology and the Environment*, **2010**, 8, 475-482	5.5	53
39	Olfactory toxicity in fishes. *Aquatic Toxicology*, **2010**, 96, 2-26	5.1	218
38	Natural sunlight and residual fuel oils are an acutely lethal combination for fish embryos. *Aquatic Toxicology*, **2010**, 99, 56-64	5.1	36
37	A fish of many scales: extrapolating sublethal pesticide exposures to the productivity of wild salmon populations **2009**, 19, 2004-15		93
36	Effects of water hardness, alkalinity, and dissolved organic carbon on the toxicity of copper to the lateral line of developing fish. *Environmental Toxicology and Chemistry*, **2009**, 28, 1455-61	3.8	40
35	Cardiac arrhythmia is the primary response of embryonic Pacific herring (Clupea pallasi) exposed to crude oil during weathering. *Environmental Science & Technology*, **2009**, 43, 201-7	10.3	180
34	Effects of the synthetic estrogen, 17alpha-ethinylestradiol, on aggression and courtship behavior in male zebrafish (Danio rerio). *Aquatic Toxicology*, **2009**, 91, 346-54	5.1	127
33	Barging Effects on Sensory Systems of Chinook Salmon Smolts. *Transactions of the American Fisheries Society*, **2009**, 138, 777-789	1.7	13
32	Evaluating the Effects of Forestry Herbicides on Fish Development Using Rapid Phenotypic Screens. *North American Journal of Fisheries Management*, **2009**, 29, 975-984	1.1	10
31	The synergistic toxicity of pesticide mixtures: implications for risk assessment and the conservation of endangered Pacific salmon. *Environmental Health Perspectives*, **2009**, 117, 348-53	8.4	230
30	Fish embryos are damaged by dissolved PAHs, not oil particles. *Aquatic Toxicology*, **2008**, 88, 121-7	5.1	214
29	Chemosensory deprivation in juvenile coho salmon exposed to dissolved copper under varying water chemistry conditions. *Environmental Science & Technology*, **2008**, 42, 1352-8	10.3	86
28	A sensory system at the interface between urban stormwater runoff and salmon survival. *Environmental Science & Technology*, **2007**, 41, 2998-3004	10.3	142
27	Neural defects and cardiac arrhythmia in fish larvae following embryonic exposure to 2,2$4,4Stetrabromodiphenyl ether (PBDE 47). *Aquatic Toxicology*, **2007**, 82, 296-307	5.1	180
26	Behavioral impairment and increased predation mortality in cutthroat trout exposed to carbaryl. *Marine Ecology - Progress Series*, **2007**, 329, 1-11	2.6	27
25	Developmental toxicity of 4-ring polycyclic aromatic hydrocarbons in zebrafish is differentially dependent on AH receptor isoforms and hepatic cytochrome P4501A metabolism. *Toxicology and Applied Pharmacology*, **2006**, 217, 308-21	4.6	242
24	The developmental neurotoxicity of fipronil: notochord degeneration and locomotor defects in zebrafish embryos and larvae. *Toxicological Sciences*, **2006**, 92, 270-8	4.4	143

23	Dose-additive inhibition of chinook salmon acetylcholinesterase activity by mixtures of organophosphate and carbamate insecticides. *Environmental Toxicology and Chemistry*, **2006**, 25, 1200-7	3.8	42
22	Dissolved copper triggers cell death in the peripheral mechanosensory system of larval fish. *Environmental Toxicology and Chemistry*, **2006**, 25, 597-603	3.8	89
21	The Extension of Molecular and Computational Information to Risk Assessment and Regulatory Decision Making* **2006**, 151-180		1
20	Comparative thresholds for acetylcholinesterase inhibition and behavioral impairment in coho salmon exposed to chlorpyrifos. *Environmental Toxicology and Chemistry*, **2005**, 24, 136-45	3.8	169
19	Dissolved saxitoxin causes transient inhibition of sensorimotor function in larval Pacific herring (Clupea harengus pallasi). *Marine Biology*, **2005**, 147, 1393-1402	2.5	45
18	Aryl hydrocarbon receptor-independent toxicity of weathered crude oil during fish development. *Environmental Health Perspectives*, **2005**, 113, 1755-62	8.4	290
17	The electro-olfactogram **2005**,		3
16	Defects in cardiac function precede morphological abnormalities in fish embryos exposed to polycyclic aromatic hydrocarbons. *Toxicology and Applied Pharmacology*, **2004**, 196, 191-205	4.6	611
15	Odor-evoked field potentials as indicators of sublethal neurotoxicity in juvenile coho salmon (Oncorhynchus kisutch) exposed to copper, chlorpyrifos, or esfenvalerate. *Canadian Journal of Fisheries and Aquatic Sciences*, **2004**, 61, 404-413	2.4	85
14	Morphological abnormalities and sensorimotor deficits in larval fish exposed to dissolved saxitoxin. *Aquatic Toxicology*, **2004**, 66, 159-70	5.1	84
13	Sublethal effects of copper on coho salmon: impacts on nonoverlapping receptor pathways in the peripheral olfactory nervous system. *Environmental Toxicology and Chemistry*, **2003**, 22, 2266-74	3.8	129
12	Expression of nitric oxide synthase and nitric oxide-sensitive guanylate cyclase in the crustacean cardiac ganglion. *Journal of Comparative Neurology*, **2002**, 454, 158-67	3.4	33
11	NO/cGMP Signaling and the Flexible Organization of Motor Behavior in Crustaceans1. *American Zoologist*, **2001**, 41, 292-303		5
10	NO/cGMP Signaling and the Flexible Organization of Motor Behavior in Crustaceans. *American Zoologist*, **2001**, 41, 292-303		6
9	Neural network partitioning by NO and cGMP. *Journal of Neuroscience*, **2001**, 21, 1610-8	6.6	43
8	Chapter XI Invertebrate models for studying NO-mediated signaling. *Handbook of Chemical Neuroanatomy*, **2000**, 17, 417-441		11
7	Molecular underpinnings of motor pattern generation: differential targeting of shal and shaker in the pyloric motor system. *Journal of Neuroscience*, **2000**, 20, 6619-30	6.6	49
6	Diazinon disrupts antipredator and homing behaviors in chinook salmon (Oncorhynchus tshawytscha). *Canadian Journal of Fisheries and Aquatic Sciences*, **2000**, 57, 1911-1918	2.4	162

5	The NO/cGMP pathway and the development of neural networks in postembryonic lobsters. *Journal of Neurobiology*, **1998**, 34, 208-26		80
4	Identification of nitric oxide-sensitive and -insensitive forms of cytoplasmic guanylate cyclase. *Journal of Neurochemistry*, **1997**, 69, 1650-60	6	20
3	Nitric oxide and peptide neurohormones activate cGMP synthesis in the crab stomatogastric nervous system. *Journal of Neuroscience*, **1996**, 16, 1614-22	6.6	37
2	Chemical orientation of lobsters, homarus americanus, in turbulent odor plumes. *Journal of Chemical Ecology*, **1991**, 17, 1293-307	2.7	127
1	Chemical pollution149-177		2