

# Peter W Sorensen

## List of Publications by Year in descending order

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98  
papers

5,757  
citations

70961

41  
h-index

82410

72  
g-index

115  
all docs

115  
docs citations

115  
times ranked

3890  
citing authors

#	ARTICLE	IF	CITATIONS
1	F Prostaglandins Function as Potent Olfactory Stimulants that Comprise the Postovulatory Female Sex Pheromone in Goldfish. <i>Biological Journal of Zoology</i> , 1988, 39, 1039-1050.	1.2	285
2	Functional Identification of a Goldfish Odorant Receptor. <i>Neuron</i> , 1999, 23, 487-498.	3.8	224
3	Mixture of new sulfated steroids functions as a migratory pheromone in the sea lamprey. <i>Nature Chemical Biology</i> , 2005, 1, 324-328.	3.9	222
4	Effects of Temperature and Trophic State on Degradation of Environmental DNA in Lake Water. <i>Environmental Science &amp; Technology</i> , 2016, 50, 1859-1867.	4.6	210
5	Hormonal and pheromonal control of spawning behavior in the goldfish. <i>Fish Physiology and Biochemistry</i> , 2002, 26, 71-84.	0.9	196
6	The Relationship between the Distribution of Common Carp and Their Environmental DNA in a Small Lake. <i>PLoS ONE</i> , 2014, 9, e112611.	1.1	172
7	Optimizing techniques to capture and extract environmental DNA for detection and quantification of fish. <i>Molecular Ecology Resources</i> , 2016, 16, 56-68.	2.2	171
8	Environment shapes the fecal microbiome of invasive carp species. <i>Microbiome</i> , 2016, 4, 44.	4.9	166
9	Neural Processing, Perception, and Behavioral Responses to Natural Chemical Stimuli by Fish and Crustaceans. <i>Journal of Chemical Ecology</i> , 2008, 34, 898-914.	0.9	159
10	Direct behavioral evidence that unique bile acids released by larval sea lamprey ( <i>Petromyzon</i> ) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 3 2000, 57, 557-569.	0.7	145
11	Brief review of fish pheromones and discussion of their possible uses in the control of non-indigenous teleost fishes. <i>New Zealand Journal of Marine and Freshwater Research</i> , 2004, 38, 399-417.	0.8	141
12	Sexually mature male goldfish release large quantities of androstenedione into the water where it functions as a pheromone. <i>General and Comparative Endocrinology</i> , 2005, 140, 164-175.	0.8	121
13	ENVIRONMENTAL ESTROGENS SUPPRESS HORMONES, BEHAVIOR, AND REPRODUCTIVE FITNESS IN MALE FATHEAD MINNOWS. <i>Environmental Toxicology and Chemistry</i> , 2007, 26, 271.	2.2	118
14	Effects of a rapidly increasing population of common carp on vegetative cover and waterfowl in a recently restored Midwestern shallow lake. <i>Hydrobiologia</i> , 2009, 632, 235-245.	1.0	115
15	Extreme olfactory sensitivity of mature and gonadally-regressed goldfish to a potent steroidal pheromone, 17 $\beta$ ,20 $\alpha$ -dihydroxy-4-pregnen-3-one. <i>Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology</i> , 1987, 160, 305-313.	0.7	107
16	Recruitment and abundance of an invasive fish, the common carp, is driven by its propensity to invade and reproduce in basins that experience winter-time hypoxia in interconnected lakes. <i>Biological Invasions</i> , 2010, 12, 1101-1112.	1.2	106
17	Differing behavioral and endocrinological effects of two female sex pheromones on male goldfish. <i>Hormones and Behavior</i> , 1989, 23, 317-332.	1.0	99
18	Laboratory assessment of the role of a larval pheromone and natural stream odor in spawning stream localization by migratory sea lamprey ( <i>Petromyzon marinus</i> ). <i>Canadian Journal of Fisheries and Aquatic Sciences</i> , 2001, 58, 2374-2385.	0.7	99

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19	High rate of redd superimposition by brook trout ( <i>Salvelinus fontinalis</i> ) and brown trout ( <i>Salmo trutta</i> ) in a Minnesota stream cannot be explained by habitat availability alone. Canadian Journal of Fisheries and Aquatic Sciences, 1998, 55, 2310-2316.	0.7	97
20	The three steroidal components of the goldfish preovulatory pheromone signal evoke different behaviors in males. Comparative Biochemistry and Physiology - B Biochemistry and Molecular Biology, 2001, 129, 645-651.	0.7	96
21	Exposure to the pheromone 17 $\beta$ ,20 $\alpha$ -dihydroxy-4-pregnen-3-one enhances the behavioural spawning success, sperm production and sperm motility of male goldfish. Animal Behaviour, 1993, 46, 245-256.	0.8	93
22	Evidence That Petromyzontid Lampreys Employ a Common Migratory Pheromone That Is Partially Comprised of Bile Acids. Journal of Chemical Ecology, 2004, 30, 2091-2110.	0.9	91
23	The Chemical Ecology and Potential Application of the Sea Lamprey Migratory Pheromone. Journal of Great Lakes Research, 2003, 29, 66-84.	0.8	88
24	Behavioral and genomic impacts of a wastewater effluent on the fathead minnow. Aquatic Toxicology, 2011, 101, 38-48.	1.9	80
25	Sex pheromones selectively stimulate the medial olfactory tracts of male goldfish. Brain Research, 1991, 558, 343-347.	1.1	77
26	Title is missing!. Fish Physiology and Biochemistry, 2001, 24, 15-30.	0.9	77
27	A field test verifies that pheromones can be useful for sea lamprey ( <i>Petromyzon marinus</i> ) control in the Great Lakes. Canadian Journal of Fisheries and Aquatic Sciences, 2006, 63, 475-479.	0.7	76
28	Discrimination of pheromonal cues in fish: emerging parallels with insects. Current Opinion in Neurobiology, 1998, 8, 458-467.	2.0	75
29	Female goldfish signal spawning readiness by altering when and where they release a urinary pheromone. Animal Behaviour, 2007, 74, 1329-1338.	0.8	69
30	A Sterol-Like Odorant in the Urine of Mozambique Tilapia Males Likely Signals Social Dominance to Females. Journal of Chemical Ecology, 2008, 34, 438-449.	0.9	68
31	Origins of the freshwater attractant(s) of migrating elvers of the American eel, <i>Anguilla rostrata</i> . Environmental Biology of Fishes, 1986, 17, 185-200.	0.4	67
32	Lamprey Spawning Migration. , 2015, , 215-263.		67
33	Evolution and Specialization of Fish Hormonal Pheromones. , 1999, , 15-47.		60
34	Isolation and Biological Activity of the Multi-Component Sea Lamprey Migratory Pheromone. Journal of Chemical Ecology, 2008, 34, 1259-1267.	0.9	57
35	Temporal Variation in the Estrogenicity of a Sewage Treatment Plant Effluent and Its Biological Significance. Environmental Science & Technology, 2008, 42, 3421-3427.	4.6	54
36	Olfactory-mediated stream-finding behavior of migratory adult sea lamprey ( <i>Petromyzon marinus</i> ). Canadian Journal of Fisheries and Aquatic Sciences, 2011, 68, 523-533.	0.7	54

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37	Importance of the olfactory sense to migratory sea lampreys <i>Petromyzon marinus</i> seeking riverine spawning habitat. <i>Journal of Fish Biology</i> , 2010, 76, 949-964.	0.7	52
38	One week exposure to treated sewage discharge has relatively minor, variable effects on reproductive behavior and sperm production in goldfish. <i>Environmental Toxicology and Chemistry</i> , 2002, 21, 2185-2190.	2.2	51
39	A critical review of the discovery and application of a migratory pheromone in an invasive fish, the sea lamprey <i>Petromyzon marinus</i> L.. <i>Journal of Fish Biology</i> , 2007, 71, 100-114.	0.7	51
40	Variation in native micro-predator abundance explains recruitment of a mobile invasive fish, the common carp, in a naturally unstable environment. <i>Biological Invasions</i> , 2012, 14, 1919-1929.	1.2	49
41	Effects of common carp ( <i>Cyprinus carpio</i> ) on sediment mixing depth and mobile phosphorus mass in the active sediment layer of a shallow lake. <i>Hydrobiologia</i> , 2016, 763, 23-33.	1.0	48
42	Reproductive Pheromones. <i>Fish Physiology</i> , 2005, , 359-412.	0.2	47
43	Biological invasion by a benthivorous fish reduced the cover and species richness of aquatic plants in most lakes of a large North American ecoregion. <i>Global Change Biology</i> , 2016, 22, 3937-3947.	4.2	47
44	Stable Isotope Analysis of Amphidromous Hawaiian Gobies Suggests Their Larvae Spend a Substantial Period of Time in Freshwater River Plumes. <i>Environmental Biology of Fishes</i> , 2005, 74, 31-42.	0.4	42
45	Cognitive aspects of food searching behavior in free-ranging wild Common Carp. <i>Environmental Biology of Fishes</i> , 2010, 88, 295-300.	0.4	42
46	Effects of common carp on phosphorus concentrations, water clarity, and vegetation density: a whole system experiment in a thermally stratified lake. <i>Hydrobiologia</i> , 2015, 746, 303-311.	1.0	42
47	Possible Applications of Pheromones in an Integrated Sea Lamprey Management Program. <i>Journal of Great Lakes Research</i> , 2003, 29, 794-800.	0.8	41
48	Details of the Structure Determination of the Sulfated Steroids PSDS and PADS: A New Components of the Sea Lamprey ( <i>Petromyzonmarinus</i> ) Migratory Pheromone. <i>Journal of Organic Chemistry</i> , 2007, 72, 7544-7550.	1.7	41
49	Nonlinear relationship between Silver Carp density and their eDNA concentration in a large river. <i>PLoS ONE</i> , 2019, 14, e0218823.	1.1	41
50	Polar Metabolites Synergize the Activity of Prostaglandin F <sub>2</sub> ± in a Species-Specific Hormonal Sex Pheromone Released by Ovulated Common Carp. <i>Journal of Chemical Ecology</i> , 2011, 37, 695-704.	0.9	40
51	A Multi-Component Species Identifying Pheromone in the Goldfish. <i>Journal of Chemical Ecology</i> , 2011, 37, 219-227.	0.9	39
52	Biologically Relevant Concentrations of Petromyzonol Sulfate, a Component of the Sea Lamprey Migratory Pheromone, Measured in Stream Water. <i>Journal of Chemical Ecology</i> , 2005, 31, 2205-2210.	0.9	36
53	Using Boat Electrofishing to Estimate the Abundance of Invasive Common Carp in Small Midwestern Lakes. <i>North American Journal of Fisheries Management</i> , 2012, 32, 817-822.	0.5	36
54	Guidelines for Use of Fishes in Research—Revised and Expanded, 2014. <i>Fisheries</i> , 2014, 39, 415-416.	0.6	35

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55	Olfactory Sensitivity of Pacific Lampreys to Lamprey Bile Acids. <i>Transactions of the American Fisheries Society</i> , 2009, 138, 144-152.	0.6	34
56	Attracting Common Carp to a bait site with food reveals strong positive relationships between fish density, feeding activity, environmental <sc>DNA</sc>, and sex pheromone release that could be used in invasive fish management. <i>Ecology and Evolution</i> , 2018, 8, 6714-6727.	0.8	34
57	Theory and Application of Semiochemicals in Nuisance Fish Control. <i>Journal of Chemical Ecology</i> , 2016, 42, 698-715.	0.9	31
58	Hormonal Pheromones in Fish. , 2002, , 375-434.		29
59	Common carp and goldfish discern conspecific identity using chemical cues. <i>Behaviour</i> , 2008, 145, 1409-1425.	0.4	29
60	Male-typical courtship, spawning behavior, and olfactory sensitivity are induced to different extents by androgens in the goldfish suggesting they are controlled by different neuroendocrine mechanisms. <i>General and Comparative Endocrinology</i> , 2016, 232, 160-173.	0.8	28
61	Injured Eurasian Ruffe, <i>Gymnocephalus cernuus</i> , Release an Alarm Pheromone that Could be Used to Control their Dispersal. <i>Journal of Great Lakes Research</i> , 2000, 26, 183-195.	0.8	26
62	Evidence that 4-pregnen-17,20 <sup>12</sup> ,21-triol-3-one functions as a maturation-inducing hormone and pheromonal precursor in the percid fish, <i>Gymnocephalus cernuus</i> . <i>General and Comparative Endocrinology</i> , 2004, 139, 1-11.	0.8	26
63	High-Potency Olfactory Receptor Agonists Discovered by Virtual High-Throughput Screening: Molecular Probes for Receptor Structure and Olfactory Function. <i>Neuron</i> , 2008, 60, 767-774.	3.8	26
64	Source-sink dynamics explain the distribution and persistence of an invasive population of common carp across a model Midwestern watershed. <i>Biological Invasions</i> , 2018, 20, 1961-1976.	1.2	25
65	Bold minnows consistently approach danger in the field and lab in response to either chemical or visual indicators of predation risk. <i>Behavioral Ecology and Sociobiology</i> , 2010, 64, 381-387.	0.6	23
66	A Practical Method for Obtaining Useful Quantities of Pheromones from Sea Lamprey and Other Fishes for Identification and Control. <i>Journal of Great Lakes Research</i> , 2006, 32, 832.	0.8	22
67	Common Carp Implanted with Prostaglandin F <sub>2</sub> ± Release a Sex Pheromone Complex that Attracts Conspecific Males in Both the Laboratory and Field. <i>Journal of Chemical Ecology</i> , 2012, 38, 127-134.	0.9	22
68	Direct Field and Laboratory Evidence that a Combination of Egg and Larval Predation Controls Recruitment of Invasive Common Carp in Many Lakes of the Upper Mississippi River Basin. <i>Transactions of the American Fisheries Society</i> , 2013, 142, 1134-1140.	0.6	22
69	High levels of circulating prostaglandin F <sub>2</sub> ± associated with ovulation stimulate female sexual receptivity and spawning behavior in the goldfish ( <i>Carassius auratus</i> ). <i>General and Comparative Endocrinology</i> , 2018, 267, 128-136.	0.8	22
70	Production and fate of the sea lamprey migratory pheromone. <i>Fish Physiology and Biochemistry</i> , 2010, 36, 1013-1020.	0.9	21
71	A complex sound coupled with an air curtain blocks invasive carp passage without habituation in a laboratory flume. <i>Biological Invasions</i> , 2019, 21, 2837-2855.	1.2	21
72	Silver, bighead, and common carp orient to acoustic particle motion when avoiding a complex sound. <i>PLoS ONE</i> , 2017, 12, e0180110.	1.1	20

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73	Spawning Interactions between Sympatric Brown and Brook Trout May Contribute to Species Replacement. <i>Transactions of the American Fisheries Society</i> , 2002, 131, 569-576.	0.6	19
74	Anatomical and physiological studies of bigheaded carps demonstrate that the epibranchial organ functions as a pharyngeal taste organ. <i>Journal of Experimental Biology</i> , 2014, 217, 3945-54.	0.8	19
75	Partial migration to seasonally unstable habitat facilitates biological invasions in a predator-dominated system. <i>Oikos</i> , 2015, 124, 1520-1526.	1.2	19
76	Different Migratory Strategies of Invasive Common Carp and Native Northern Pike in the American Midwest Suggest an Opportunity for Selective Management Strategies. <i>North American Journal of Fisheries Management</i> , 2016, 36, 769-779.	0.5	19
77	The Chemical Sensitivity and Electrical Activity of Individual Olfactory Sensory Neurons to a Range of Sex Pheromones and Food Odors in the Goldfish. <i>Chemical Senses</i> , 2018, 43, 249-260.	1.1	19
78	Synthesis and olfactory activity of unnatural, sulfated $5\beta$ -bile acid derivatives in the sea lamprey ( <i>Petromyzon marinus</i> ). <i>Steroids</i> , 2011, 76, 291-300.	0.8	18
79	Pheromones in Vertebrates. , 2010, , 225-262.		15
80	Second Messenger Systems Mediating Sex Pheromone and Amino Acid Sensitivity in Goldfish Olfactory Receptor Neurons. <i>Chemical Senses</i> , 2005, 30, i315-i316.	1.1	14
81	Behavioral responses of adult male and female fathead minnows to a model estrogenic effluent and its effects on exposure regime and reproductive success. <i>Aquatic Toxicology</i> , 2011, 101, 521-528.	1.9	14
82	Invasive Bighead and Silver Carps Form Different Sized Shoals that Readily Intermix. <i>PLoS ONE</i> , 2016, 11, e0157174.	1.1	14
83	Monitoring upstream fish passage through a Mississippi River lock and dam reveals species differences in lock chamber usage and supports a fish passage model which describes velocity-dependent passage through spillway gates. <i>River Research and Applications</i> , 2020, 36, 36-46.	0.7	14
84	Case Studies Demonstrate That Common Carp Can Be Sustainably Reduced by Exploiting Source-Sink Dynamics in Midwestern Lakes. <i>Fishes</i> , 2020, 5, 36.	0.7	14
85	Migration, homing and spatial ecology of common carp in interconnected lakes. <i>Ecology of Freshwater Fish</i> , 2022, 31, 164-176.	0.7	13
86	Chemical Cues which Include Amino Acids Mediate Species-Specific Feeding Behavior in Invasive Filter-Feeding Bigheaded Carps. <i>Journal of Chemical Ecology</i> , 2017, 43, 374-384.	0.9	10
87	A Blend of F Prostaglandins Functions as an Attractive Sex Pheromone in Silver Carp. <i>Fishes</i> , 2019, 4, 27.	0.7	9
88	Numeric Simulation Demonstrates That the Upstream Movement of Invasive Bigheaded Carp Can Be Blocked at Sets of Mississippi River Locks-and-Dams Using a Combination of Optimized Spillway Gate Operations, Lock Deterrents, and Carp Removal. <i>Fishes</i> , 2021, 6, 10.	0.7	9
89	The Effect of Modifying a CFD-AB Approach on Fish Passage through a Model Hydraulic Dam. <i>Water (Switzerland)</i> , 2019, 11, 1776.	1.2	6
90	Common Carp Are Initially Repelled by a Broadband Outboard Motor Sound in a Lock Chamber but Habituate Rapidly. <i>North American Journal of Fisheries Management</i> , 2020, 40, 1499-1509.	0.5	6

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91	Management Briefs: Effects of Electroshocking on the Sexual Behavior of Goldfish and Brook Trout. North American Journal of Fisheries Management, 1994, 14, 862-865.	0.5	5
92	Hormonal Prostaglandin F2 $\alpha$ Mediates Behavioral Responsiveness to a Species-Specific Multi-component Male Hormonal Sex Pheromone in a Female Fish. Integrative and Comparative Biology, 2021, 61, 193-204.	0.9	5
93	Introduction to the Biology and Control of Invasive Fishes and a Special Issue on This Topic. Fishes, 2021, 6, 69.	0.7	4
94	Movements of a model fish, the common carp, through a generic Mississippi River lock and dam demonstrate how fish swimming performance, behavior, and discharge-driven flow fields determine fish passage rates in ways that can be predicted and modified using fish passage models. River Research and Applications, 0, , .	0.7	4
95	Chemical Analysis of Aquatic Pheromones in Fish. Methods in Molecular Biology, 2013, 1068, 55-69.	0.4	3
96	Otolith Microchemistry of Common Carp Reflects Capture Location and Differentiates Nurseries in an Interconnected Lake System of the North American Midwest. North American Journal of Fisheries Management, 2020, 40, 1100-1118.	0.5	2
97	Global Inland Capture and Culture Finfisheries Follow Different Trends When Evaluated by the Human Development Index. Sustainability, 2021, 13, 8420.	1.6	2
98	Behavioral Analysis of Pheromones in Fish. Methods in Molecular Biology, 2013, 1068, 293-305.	0.4	1