Sandrine Charles

List of Publications by Year
in descending order

77 papers	1,751 citations	331670 21 h-index	345221 36 g-index
97 all docs	97 docs citations	97 times ranked	1616 citing authors

#	Article	IF	Citations
1	In situ feeding assay with Gammarus fossarum (Crustacea): Modelling the influence of confounding factors to improve water quality biomonitoring. Water Research, 2011, 45, 6417-6429.	11.3	78
2	Towards a renewed research agenda in ecotoxicology. Environmental Pollution, 2012, 160, 201-206.	7.5	78
3	A Bayesian Approach to Analyzing Ecotoxicological Data. Environmental Science & Technology, 2008, 42, 8978-8984.	10.0	74
4	Scientific Opinion on the state of the art of Toxicokinetic/Toxicodynamic (TKTD) effect models for regulatory risk assessment of pesticides for aquatic organisms. EFSA Journal, 2018, 16, e05377.	1.8	69
5	Aggregation and emergence in ecological modelling: integration of ecological levels. Ecological Modelling, 2000, 127, 11-20.	2.5	66
6	The particular behaviour of Listeria monocytogenes under sub-optimal conditions. International Journal of Food Microbiology, 1996, 29, 201-211.	4.7	62
7	Integrating the lethal and sublethal effects of toxic compounds into the population dynamics of Daphnia magna: A combination of the DEBtox and matrix population models. Ecological Modelling, 2007, 203, 204-214.	2.5	60
8	Modelling survival: exposure pattern, species sensitivity and uncertainty. Scientific Reports, 2016, 6, 29178.	3.3	56
9	Students' performance and satisfaction with Web vs. paper-based practice quizzes and lecture notes. Computers and Education, 2009, 53, 375-384.	8.3	55
10	Development and validation of an OECD reproductive toxicity test guideline with the pond snail Lymnaea stagnalis (Mollusca, Gastropoda). Regulatory Toxicology and Pharmacology, 2014, 70, 605-614.	2.7	49
11	Use of sensitivity analysis to identify influential and non-influential parameters within an aquatic ecosystem model. Ecological Modelling, 2012, 246, 119-130.	2.5	45
12	Statistical cautions when estimating DEBtox parameters. Journal of Theoretical Biology, 2008, 254, 55-64.	1.7	44
13	The Dynamics of Transposable Elements in Structured Populations. Genetics, 2005, 169, 467-474.	2.9	42
14	Annual spawning migrations in modelling brown trout population dynamics inside an arborescent river network. Ecological Modelling, 2000, 133, 15-31.	2.5	40
15	MOSAIC: a web-interface for statistical analyses in ecotoxicology. Environmental Science and Pollution Research, 2018, 25, 11295-11302.	5.3	39
16	Development of partial life-cycle experiments to assess the effects of endocrine disruptors on the freshwater gastropod Lymnaea stagnalis: a case-study with vinclozolin. Ecotoxicology, 2010, 19, 1312-1321.	2.4	35
17	MOSAIC_SSD: A new web tool for species sensitivity distribution to include censored data by maximum likelihood. Environmental Toxicology and Chemistry, 2014, 33, 2133-2139.	4.3	34
18	An individual-based model to describe a bullhead population dynamics including temperature variations. Ecological Modelling, 2008, 215, 377-392.	2.5	29

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19	Title is missing!. Acta Biotheoretica, 1998, 46, 223-234.	1.5	26
20	Food availability effect on population dynamics of the midge Chironomus riparius: a Leslie modeling approach. Ecological Modelling, 2004, 175, 217-229.	2.5	25
21	Toxicity of ivermectin on cladocerans: Comparison of toxic effects on *Daphnia and Ceriodaphnia* species. Environmental Toxicology and Chemistry, 2009, 28, 2160-2166.	4.3	25
22	New Insights to Compare and Choose TKTD Models for Survival Based on an Interlaboratory Study for *Lymnaea stagnalis* Exposed to Cd. Environmental Science & Technology, 2018, 52, 1582-1590.	10.0	25
23	Recommendations to address uncertainties in environmental risk assessment using toxicokinetic-toxicodynamic models. Scientific Reports, 2019, 9, 11432.	3.3	25
24	Population-Level Modeling to Account for Multigenerational Effects of Uranium in *Daphnia magna*. Environmental Science & Technology, 2012, 46, 1136-1143.	10.0	23
25	Statistical Handling of Reproduction Data for Exposure-Response Modeling. Environmental Science & Technology, 2014, 48, 7544-7551.	10.0	23
26	Evolution and invasion dynamics of multiple infections with Wolbachia investigated using matrix based models. Journal of Theoretical Biology, 2007, 245, 197-209.	1.7	22
27	Survival data analyses in ecotoxicology: critical effect concentrations, methods and models. What should we use?. Ecotoxicology, 2012, 21, 1072-1083.	2.4	22
28	The molecular signal for the adaptation to cold temperature during early life on Earth. Biology Letters, 2013, 9, 20130608.	2.3	22
29	Dynamics of transposable elements under the selection model. Genetical Research, 1999, 74, 159-164.	0.9	21
30	What to do with NOECS/NOELS—prohibition or innovation?. Integrated Environmental Assessment and Management, 2012, 8, 764-766.	2.9	21
31	Bayesian modelling of daphnid responses to time-varying cadmium exposure in laboratory aquatic microcosms. Ecotoxicology and Environmental Safety, 2011, 74, 693-702.	6.0	20
32	Optimizing the design of a reproduction toxicity test with the pond snail Lymnaea stagnalis. Regulatory Toxicology and Pharmacology, 2016, 81, 47-56.	2.7	20
33	Combined effect of temperature and ammonia on molecular response and survival of the freshwater crustacean Gammarus pulex. Ecotoxicology and Environmental Safety, 2017, 137, 42-48.	6.0	20
34	Dynamic energy budget as a basis to model population–level effects of zinc–spiked sediments in the gastropod *Valvata piscinalis*. Environmental Toxicology and Chemistry, 2007, 26, 1774-1783.	4.3	19
35	A new perspective on the Dunnett procedure: Filling the gap between NOEC/LOEC and EC*x* concepts. Environmental Toxicology and Chemistry, 2011, 30, 2888-2891.	4.3	19
36	Keeping modelling notebooks with TRACE: Good for you and good for environmental research and management support. Environmental Modelling and Software, 2021, 136, 104932.	4.5	19

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37	Ecotoxicology and spatial modeling in population dynamics: An illustration with brown trout. Environmental Toxicology and Chemistry, 2003, 22, 958-969.	4.3	18
38	Do migratory or demographic disruptions rule the population impact of pollution in spatial networks?. Theoretical Population Biology, 2003, 64, 473-480.	1.1	18
39	Application of a temperature-dependent von Bertalanffy growth model to bullhead (Cottus gobio). Ecological Modelling, 2010, 221, 2475-2481.	2.5	18
40	Constructing Time-Resolved Species Sensitivity Distributions Using a Hierarchical Toxico-Dynamic Model. Environmental Science & Technology, 2015, 49, 12465-12473.	10.0	17
41	A critical review of effect modeling for ecological risk assessment of plant protection products. Environmental Science and Pollution Research, 2022, 29, 43448-43500.	5.3	17
42	Ecological Modeling for the Extrapolation of Ecotoxicological Effects Measured during in Situ Assays in <i>Gammarus</i>. Environmental Science & Technology, 2014, 48, 6428-6436.	10.0	16
43	Fit Reduced GUTS Models Online: From Theory to Practice. Integrated Environmental Assessment and Management, 2018, 14, 625-630.	2.9	15
44	Taking full advantage of modelling to better assess environmental risk due to xenobioticsâ€"the all-in-one facility MOSAIC. Environmental Science and Pollution Research, 2022, 29, 29244-29257.	5.3	15
45	A density dependent model describing Salmo trutta population dynamics in an arborescent river network. Effects of dams and channelling. Comptes Rendus De L'AcadÃ©mie Des Sciences SÃ©rie 3, Sciences De La Vie, 1998, 321, 979-990.	0.8	14
46	Behavioral choices based on patch selection: a model using aggregation methods. Mathematical Biosciences, 1999, 157, 189-216.	1.9	14
47	DEBtox theory and matrix population models as helpful tools in understanding the interaction between toxic cyanobacteria and zooplankton. Journal of Theoretical Biology, 2009, 258, 380-388.	1.7	14
48	From Individual to Population Level Effects of Toxicants in the Tubicifid <i>Branchiura sowerbyi</i> Using Threshold Effect Models in a Bayesian Framework. Environmental Science & Technology, 2010, 44, 3566-3571.	10.0	13
49	Hierarchical modelling of species sensitivity distribution: Development and application to the case of diatoms exposed to several herbicides. Ecotoxicology and Environmental Safety, 2015, 114, 212-221.	6.0	13
50	Mechanistic modelling of daphnid-algae dynamics within a laboratory microcosm. Ecological Modelling, 2016, 320, 213-230.	2.5	12
51	New perspectives on the calculation of bioaccumulation metrics for active substances in living organisms. Integrated Environmental Assessment and Management, 2022, 18, 10-18.	2.9	12
52	First step of a modeling approach to evaluate spatial heterogeneity in a fish (Cottus gobio) population dynamics. Ecological Modelling, 2006, 197, 263-273.	2.5	11
53	Comparison of bioassays with different exposure time patterns: The added value of dynamic modelling in predictive ecotoxicology. Ecotoxicology and Environmental Safety, 2012, 75, 80-86.	6.0	11
54	Matrix Population Models as Relevant Modeling Tools in Ecotoxicology. Emerging Topics in Ecotoxicology, 2009, , 261-298.	1.5	10

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55	In Silico Methods for Environmental Risk Assessment: Principles, Tiered Approaches, Applications, and Future Perspectives. Methods in Molecular Biology, 2022, 2425, 589-636.	0.9	10
56	Application of General Unified Threshold Models of Survival Models for Regulatory Aquatic Pesticide Risk Assessment Illustrated with an Example for the Insecticide Chlorpyrifos. Integrated Environmental Assessment and Management, 2021, 17, 243-258.	2.9	9
57	Emergence of individual behaviour at the population level. Effects of density-dependent migration on population dynamics. Comptes Rendus De L'AcadÃ©mie Des Sciences SÃ©rie 3, Sciences De La Vie, 2000, 323, 119-127.	0.8	8
58	How to account for the uncertainty from standard toxicity tests in species sensitivity distributions: An example in non-target plants. PLoS ONE, 2021, 16, e0245071.	2.5	8
59	morse: an R-package to analyse toxicity test data. Journal of Open Source Software, 2021, 6, 3200.	4.6	8
60	A mathematical model describing the thermal virus inactivation. Vaccine, 2001, 19, 3575-3582.	3.8	7
61	Host Patch Selection Induced by Parasitism: Basic Reproduction Ratio R0 and Optimal Virulence. Theoretical Population Biology, 2002, 62, 97-109.	1.1	7
62	TESD: a transposable element dynamics simulation environment. Bioinformatics, 2006, 22, 2702-2703.	4.1	7
63	Modeling Nosocomial Transmission of Rotavirus inÂPediatric Wards. Bulletin of Mathematical Biology, 2011, 73, 1413-1442.	1.9	7
64	Lifeâ€history phenology strongly influences population vulnerability to toxicants: A case study with the mudsnail <i>Potamopyrgus antipodarum</i>. Environmental Toxicology and Chemistry, 2013, 32, 1727-1736.	4.3	7
65	Modelling algaeâ€"duckweed interaction under chemical pressure within a laboratory microcosm. Ecotoxicology and Environmental Safety, 2016, 128, 252-265.	6.0	6
66	Accumulation-depuration data collection in support of toxicokinetic modelling. Scientific Data, 2022, 9, 130.	5.3	6
67	Population Dynamics of Grayling: Modelling Temperature and Discharge Effects. Mathematical Modelling of Natural Phenomena, 2006, 1, 31-48.	2.4	5
68	Reappraisal of the effect of temperature on the growth kinetics of Aeromonas salmonicida. Letters in Applied Microbiology, 1997, 25, 363-366.	2.2	3
69	rbioacc: An R-package to analyze toxicokinetic data. Ecotoxicology and Environmental Safety, 2022, 242, 113875.	6.0	2
70	A meta-analysis of ecotoxicological models used for plant protection product risk assessment before their placing on the market. Science of the Total Environment, 2022, 844, 157003.	8.0	2
71	Generic Solving of One-compartment Toxicokinetic Models. Journal of Exploratory Research in Pharmacology, 2021, 000, 000-000.	0.4	1
72	Artificial intelligence and meaning--some philosophical aspects of decision-making. Acta Biotheoretica, 2000, 48, 173-179.	1.5	0

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73	Title is missing!. , 2021, 16, e0245071.		0
74	Title is missing!. , 2021, 16, e0245071.		0
75	Title is missing!. , 2021, 16, e0245071.		0
76	Title is missing!. , 2021, 16, e0245071.		0
77	Using Aggregation Methods to Assess Toxicant Effects on Population Dynamics in Spatial Systems. , 2002, 12, 1771.		0