Hugh J Macisaac

List of Publications by Year
in descending order

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123	11,092	36303	37204
papers	citations	51 h-index	96 g-index

127	127	127	9780
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Is invasion success explained by the enemy release hypothesis?. Ecology Letters, 2004, 7, 721-733.	6.4	1,015
2	Propagule Pressure: A Null Model for Biological Invasions. Biological Invasions, 2006, 8, 1023-1037.	2.4	730
3	BIOLOGICAL INVASIONS: RECOMMENDATIONS FOR U.S. POLICY AND MANAGEMENT. , 2006, 16, 2035-2054.		722
4	A neutral terminology to define â€˜invasiveâ€™ species. Diversity and Distributions, 2004, 10, 135-141.	4.1	691
5	Recent mass invasion of the North American Great Lakes by Ponto–Caspian species. Trends in Ecology and Evolution, 2000, 15, 62-65.	8.7	467
6	Potential Abiotic and Biotic Impacts of Zebra Mussels on the Inland Waters of North America. American Zoologist, 1996, 36, 287-299.	0.7	328
7	Invasion Science: A Horizon Scan of Emerging Challenges and Opportunities. Trends in Ecology and Evolution, 2017, 32, 464-474.	8.7	312
8	Advancing impact prediction and hypothesis testing in invasion ecology using a comparative functional response approach. Biological Invasions, 2014, 16, 735-753.	2.4	214
9	Filtering impacts of larval and sessile zebra mussels (Dreissena polymorpha) in western Lake Erie. Oecologia, 1992, 92, 30-39.	2.0	209
10	High sensitivity of 454 pyrosequencing for detection of rare species in aquatic communities. Methods in Ecology and Evolution, 2013, 4, 558-565.	5.2	208
11	Modelling local and long-distance dispersal of invasive emerald ash borer Agrilus planipennis (Coleoptera) in North America. Diversity and Distributions, 2006, 12, 71-79.	4.1	202
12	Popularity and Propagule Pressure: Determinants of Introduction and Establishment of Aquarium Fish. Biological Invasions, 2006, 8, 377-382.	2.4	185
13	Contrasting patterns in genetic diversity following multiple invasions of fresh and brackish waters. Molecular Ecology, 2006, 15, 3641-3653.	3.9	180
14	Invader Relative Impact Potential: a new metric to understand and predict the ecological impacts of existing, emerging and future invasive alien species. Journal of Applied Ecology, 2017, 54, 1259-1267.	4.0	165
15	Bridging Troubled Waters: Biological Invasions, Transoceanic Shipping, and the Laurentian Great Lakes. BioScience, 2004, 54, 919.	4.9	157
16	Identifying the source of species invasions: sampling intensity vs. genetic diversity. Molecular Ecology, 2008, 17, 1020-1035.	3.9	151
17	Ascidians as models for studying invasion success. Marine Biology, 2015, 162, 2449-2470.	1.5	151
18	Invasion risks posed by the aquarium trade and live fish markets on the Laurentian Great Lakes. Biodiversity and Conservation, 2005, 14, 1365-1381.	2.6	148

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19	Ballast-mediated animal introductions in the Laurentian Great Lakes: retrospective and prospective analyses. Canadian Journal of Fisheries and Aquatic Sciences, 2003, 60, 740-756.	1.4	147
20	Invasion genetics of the Ciona intestinalis species complex: from regional endemism to global homogeneity. Molecular Ecology, 2010, 19, 4678-4694.	3.9	140
21	Toward accurate molecular identification of species in complex environmental samples: testing the performance of sequence filtering and clustering methods. Ecology and Evolution, 2015, 5, 2252-2266.	1.9	128
22	Origin matters: alien consumers inflict greater damage on prey populations than do native consumers. Diversity and Distributions, 2013, 19, 988-995.	4.1	125
23	PREDICTING INVASION RISK USING MEASURES OF INTRODUCTION EFFORT AND ENVIRONMENTAL NICHE MODELS. , 2007, 17, 663-674.		122
24	Divergence thresholds and divergent biodiversity estimates: can metabarcoding reliably describe zooplankton communities?. Ecology and Evolution, 2015, 5, 2234-2251.	1.9	117
25	An invasion history for Cercopagis pengoi based on mitochondrial gene sequences. Limnology and Oceanography, 2001, 46, 224-229.	3.1	115
26	Confronting the wicked problem of managing biological invasions. NeoBiota, 0, 31, 63-86.	1.0	114
27	Reassessment of Species Invasions Concepts: The Great Lakes Basin as a Model. Biological Invasions, 2001, 3, 405-416.	2.4	111
28	BACKCASTING AND FORECASTING BIOLOGICAL INVASIONS OF INLAND LAKES. , 2004, 14, 773-783.		105
29	Fouling mussels (Dreissena spp.) colonize soft sediments in Lake Erie and facilitate benthic invertebrates. Freshwater Biology, 2000, 43, 85-97.	2.4	104
30	Molecular resolution of the family Dreissenidae (Mollusca: Bivalvia) with emphasis on Ponto-Caspian species, including first report of Mytilopsis leucophaeata in the Black Sea basin. Molecular Phylogenetics and Evolution, 2004, 30, 479-489.	2.7	101
31	Evaluating Efficacy of an Environmental Policy to Prevent Biological Invasions. Environmental Science & Technology, 2011, 45, 2554-2561.	10.0	101
32	Modeling ships' ballast water as invasion threats to the Great Lakes. Canadian Journal of Fisheries and Aquatic Sciences, 2002, 59, 1245-1256.	1.4	93
33	Development of inland lakes as hubs in an invasion network. Journal of Applied Ecology, 2005, 42, 80-90.	4.0	93
34	Invasion of Lake Ontario by the Ponto-Caspian predatory cladoceran Cercopagis pengoi. Canadian Journal of Fisheries and Aquatic Sciences, 1999, 56, 1-5.	1.4	91
35	Performance comparison of genetic markers for highâ€throughput sequencingâ€based biodiversity assessment in complex communities. Molecular Ecology Resources, 2014, 14, 1049-1059.	4.8	86
36	Comparative distribution and invasion risk of snakehead (Channidae) and Asian carp (Cyprinidae) species in North America. Canadian Journal of Fisheries and Aquatic Sciences, 2007, 64, 1723-1735.	1.4	84

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37	Metabarcoding reveals strong spatial structure and temporal turnover of zooplankton communities among marine and freshwater ports. Diversity and Distributions, 2016, 22, 493-504.	4.1	83
38	Effects of the non-indigenous cladoceran Cercopagis pengoi on the lower food web of Lake Ontario. Freshwater Biology, 2003, 48, 2094-2106.	2.4	82
39	Early detection of aquatic invaders using metabarcoding reveals a high number of nonâ€indigenous species in <scp>C</scp>anadian ports. Diversity and Distributions, 2016, 22, 1045-1059.	4.1	82
40	Fortune favours the bold: a higher predator reduces the impact of a native but not an invasive intermediate predator. Journal of Animal Ecology, 2014, 83, 693-701.	2.8	81
41	Invasion genetics of the Eurasian spiny waterflea: evidence for bottlenecks and gene flow using microsatellites. Molecular Ecology, 2005, 14, 1869-1879.	3.9	79
42	Invasion risk posed by macroinvertebrates transported in shipsâ€™ ballast tanks. Biological Invasions, 2012, 14, 1843-1850.	2.4	79
43	Lake Superior: an invasion coldspot?. Hydrobiologia, 2003, 499, 191-210.	2.0	75
44	Invertebrates associated with residual ballast water and sediments of cargo-carrying ships entering the Great Lakes. Canadian Journal of Fisheries and Aquatic Sciences, 2005, 62, 2463-2474.	1.4	71
45	Multilocus genetic analyses differentiate between widespread and spatially restricted cryptic species in a model ascidian. Proceedings of the Royal Society B: Biological Sciences, 2012, 279, 2377-2385.	2.6	71
46	Microhabitat selection by the invasive amphipod Echinogammarus ischnus and native Gammarus fasciatus in laboratory experiments and in Lake Erie. Freshwater Biology, 2003, 48, 567-578.	2.4	62
47	Salinity tolerance of diapausing eggs of freshwater zooplankton. Freshwater Biology, 2004, 49, 286-295.	2.4	62
48	Invertebrate resting stages in residual ballast sediment of transoceanic ships. Canadian Journal of Fisheries and Aquatic Sciences, 2005, 62, 1090-1103.	1.4	62
49	Efficacy of openâ€ocean ballast water exchange as a means of preventing invertebrate invasions between freshwater ports. Limnology and Oceanography, 2007, 52, 2386-2397.	3.1	62
50	Rare biosphere exploration using high-throughput sequencing: research progress and perspectives. Conservation Genetics, 2015, 16, 513-522.	1.5	62
51	Range expansion of quagga mussels Dreissena rostriformis bugensis in the Volga River and Caspian Sea basin. Aquatic Ecology, 2004, 38, 561-573.	1.5	61
52	Early detection of a highly invasive bivalve based on environmental DNA (eDNA). Biological Invasions, 2018, 20, 437-447.	2.4	60
53	Relative importance of vessel hull fouling and ballast water as transport vectors of nonindigenous species to the Canadian Arctic. Canadian Journal of Fisheries and Aquatic Sciences, 2015, 72, 1230-1242.	1.4	57
54	Relationship between propagule pressure and colonization pressure in invasion ecology: a test with ships' ballast. Proceedings of the Royal Society B: Biological Sciences, 2012, 279, 2990-2997.	2.6	54

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55	Relative risk assessment for ballast-mediated invasions at Canadian Arctic ports. Biological Invasions, 2013, 15, 295-308.	2.4	53
56	Distribution, Fecundity, and Genetics of Cercopagis pengoi (Ostroumov) (Crustacea, Cladocera) in Lake Ontario. Journal of Great Lakes Research, 2001, 27, 19-32.	1.9	52
57	Comparative phylogeography of two colonial ascidians reveals contrasting invasion histories in North America. Biological Invasions, 2011, 13, 635-650.	2.4	52
58	Salinity tolerance of Great Lakes invaders. Freshwater Biology, 2009, 54, 77-89.	2.4	51
59	Taxonomic resolution of the genus Bythotrephes Leydig using molecular markers and re-evaluation of its global distribution. Diversity and Distributions, 2002, 8, 67-84.	4.1	50
60	Is vessel hull fouling an invasion threat to the Great Lakes?. Diversity and Distributions, 2010, 16, 132-143.	4.1	49
61	Water hyacinth (Eichhornia crassipes) and water lettuce (Pistia stratiotes) in the Great Lakes: playing with fire?. Aquatic Invasions, 2011, 6, 91-96.	1.6	48
62	Cyanobacteria blooms induce embryonic heart failure in an endangered fish species. Aquatic Toxicology, 2018, 194, 78-85.	4.0	46
63	Predicting the Range of Chinese Mitten Crabs in Europe. Conservation Biology, 2007, 21, 1316-1323.	4.7	45
64	Taxonâ€•and vectorâ€šspecific variation in species richness and abundance during the transport stage of biological invasions. Limnology and Oceanography, 2013, 58, 1361-1372.	3.1	44
65	Modelling spread of the invasive macrophyte Cabomba caroliniana. Freshwater Biology, 2009, 54, 296-305.	2.4	43
66	Reproducibility of pyrosequencing data for biodiversity assessment in complex communities. Methods in Ecology and Evolution, 2014, 5, 881-890.	5.2	40
67	On the RIP: using Relative Impact Potential to assess the ecological impacts of invasive alien species. NeoBiota, 0, 55, 27-60.	1.0	40
68	Quantifying rotifer species richness in temperate lakes. Freshwater Biology, 2006, 51, 1696-1709.	2.4	38
69	Efficacy of â€˜saltwater flushingâ€™ in protecting the Great Lakes from biological invasions by invertebrate eggs in shipsâ€™ ballast sediment. Freshwater Biology, 2010, 55, 2414-2424.	2.4	38
70	Domestic ballast operations on the Great Lakes: potential importance of Lakers as a vector for introduction and spread of nonindigenous species. Canadian Journal of Fisheries and Aquatic Sciences, 2010, 67, 256-268.	1.4	36
71	Influence of Artifact Removal on Rare Species Recovery in Natural Complex Communities Using High-Throughput Sequencing. PLoS ONE, 2014, 9, e96928.	2.5	34
72	Minimizing invasion risk by reducing propagule pressure: a model for ballast-water exchange. Frontiers in Ecology and the Environment, 2005, 3, 473-478.	4.0	31

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73	Conventional versus realâ€time quantitative PCR for rare species detection. Ecology and Evolution, 2018, 8, 11799-11807.	1.9	31
74	Comparative biology of the predatory cladoceran Cercopagis pengoi from Lake Ontario, Baltic Sea and Caspian Sea. Fundamental and Applied Limnology, 2000, 149, 23-50.	0.7	31
75	Impacts of climate change on geographical distributions of invasive ascidians. Marine Environmental Research, 2020, 159, 104993.	2.5	30
76	In situ hatching of invertebrate diapausing eggs from shipsâ€™ ballast sediment. Diversity and Distributions, 2005, 11, 453-460.	4.1	29
77	Population structure of an introduced species (Dreissena polymorpha) along a wave-swept disturbance gradient. Oecologia, 1996, 105, 484-492.	2.0	26
78	Determinants of rapid response success for alien invasive species in aquatic ecosystems. Biological Invasions, 2015, 17, 3327-3335.	2.4	26
79	Range Expansion of the Exotic Zooplankter Cercopagis pengoi (Ostroumov) into Western Lake Erie and Muskegon Lake. Journal of Great Lakes Research, 2002, 28, 698-701.	1.9	25
80	Sediments in ships: Biota as biological contaminants. Aquatic Ecosystem Health and Management, 2007, 10, 93-100.	0.6	25
81	Evaluation of stochastic gravity model selection for use in estimating non-indigenous species dispersal and establishment. Biological Invasions, 2011, 13, 2445-2458.	2.4	23
82	Optimization and performance testing of a sequence processing pipeline applied to detection of nonindigenous species. Evolutionary Applications, 2018, 11, 891-905.	3.1	23
83	Biological Invasions: Concepts to Understand and Predict a Global Threat. Ecological Studies, 2006, , 61-90.	1.2	23
84	Does saltwater flushing reduce viability of diapausing eggs in ship ballast sediment?. Diversity and Distributions, 2006, 12, 328-335.	4.1	21
85	Friends of mine: An invasive freshwater mussel facilitates growth of invasive macrophytes and mediates their competitive interactions. Freshwater Biology, 2020, 65, 1063-1072.	2.4	21
86	Screening marker sensitivity: Optimizing eDNAâ€based rare species detection. Diversity and Distributions, 2021, 27, 1981-1988.	4.1	21
87	Fouling of fishing line by the waterflea Cercopagis pengoi: a mechanism of human-mediated dispersal of zooplankton?. Hydrobiologia, 2007, 583, 119-126.	2.0	20
88	Domestic ships as a potential pathway of nonindigenous species from the Saint Lawrence River to the Great Lakes. Biological Invasions, 2014, 16, 793-801.	2.4	20
89	Blooming cyanobacteria alter water flea reproduction via exudates of estrogen analogues. Science of the Total Environment, 2019, 696, 133909.	8.0	19
90	Full steam ahead: direct steam exposure to inhibit spread of invasive aquatic macrophytes. Biological Invasions, 2019, 21, 1311-1321.	2.4	17

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91	History of aquatic invertebrate invasions in the Caspian Sea. , 2003, , 103-115.		17
92	Modelling the invasion risk of diapausing organisms transported in ballast sediments. Canadian Journal of Fisheries and Aquatic Sciences, 2005, 62, 2386-2398.	1.4	16
93	Richnessâ€“abundance relationships for zooplankton in ballast water: temperate versus Arctic comparisons. ICES Journal of Marine Science, 2014, 71, 1876-1884.	2.5	16
94	Can chlorination of ballast water reduce biological invasions?. Journal of Applied Ecology, 2020, 57, 331-343.	4.0	16
95	Functional response and size-selective clearance of suspended matter by an invasive mussel. Science of the Total Environment, 2020, 711, 134679.	8.0	14
96	Density dependence mediates the ecological impact of an invasive fish. Diversity and Distributions, 2020, 26, 867-880.	4.1	14
97	Vector control reduces the rate of species invasion in the world's largest freshwater ecosystem. Conservation Letters, 2022, 15, .	5.7	14
98	Diapausing zooplankton eggs remain viable despite exposure to open-ocean ballast water exchange: evidence from in situ exposure experiments. Canadian Journal of Fisheries and Aquatic Sciences, 2010, 67, 417-426.	1.4	13
99	Comparative functional responses of introduced and native ladybird beetles track ecological impact through predation and competition. Biological Invasions, 2019, 21, 519-529.	2.4	13
100	A dip or a dab: assessing the efficacy of VirasureÂ® Aquatic disinfectant to reduce secondary spread of the invasive curly waterweed Lagarosiphon major. Management of Biological Invasions, 2018, 9, 259-265.	1.2	13
101	Brine-induced mortality of non-indigenous invertebrates in residual ballast water. Marine Environmental Research, 2010, 70, 395-401.	2.5	12
102	Invertebrates associated with aquatic plants bought from aquarium stores in Canada and New Zealand. Biological Invasions, 2018, 20, 3167-3178.	2.4	12
103	EVALUATING THE EFFECTIVENESS OF BALLAST WATER EXCHANGE POLICY IN THE GREAT LAKES. Ecological Applications, 2008, 18, 1321-1323.	3.8	11
104	Population attenuation in zooplankton communities during transoceanic transfer in ballast water. Ecology and Evolution, 2016, 6, 6170-6177.	1.9	11
105	Die Hard: impact of aquatic disinfectants on the survival and viability of invasive Elodea nuttallii. Aquatic Botany, 2019, 154, 11-17.	1.6	11
106	Possible Ballast Water Transfer of Lionfish to the Eastern Pacific Ocean. PLoS ONE, 2016, 11, e0165584.	2.5	11
107	Complementary genomic and epigenomic adaptation to environmental heterogeneity. Molecular Ecology, 2022, 31, 3598-3612.	3.9	11
108	Comparative feeding rates of native and invasive ascidians. Marine Pollution Bulletin, 2018, 135, 1067-1071.	5.0	10

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109	First Record of Corophium mucronatum Sars (Crustacea: Amphipoda) in the Great Lakes. Journal of Great Lakes Research, 1999, 25, 401-405.	1.9	9
110	Range expansion of quagga mussels Dreissena rostriformis bugensis in the Volga River and Caspian Sea basin. Aquatic Ecology, 2005, 38, 561-573.	1.5	9
111	Attenuation and modification of the ballast water microbial community during voyages into the Canadian Arctic. Diversity and Distributions, 2017, 23, 567-576.	4.1	9
112	Golden mussel (Limnoperna fortunei) survival during winter at the northern invasion front implies a potential highâ€latitude distribution. Diversity and Distributions, 2021, 27, 1422-1434.	4.1	9
113	Multiple factors regulate filtration by invasive mussels: Implications for whole-lake ecosystems. Science of the Total Environment, 2021, 765, 144435.	8.0	8
114	Prediction and error in multiâ€stage models for spread of aquatic nonâ€indigenous species. Diversity and Distributions, 2011, 17, 323-337.	4.1	7
115	Can tropical macrophytes establish in the Laurentian Great Lakes?. Hydrobiologia, 2016, 767, 165-174.	2.0	7
116	Are the Great Lakes at risk of new fish invasions from trans-Atlantic shipping?. Journal of Great Lakes Research, 2015, 41, 1172-1175.	1.9	5
117	Detecting a spreading non-indigenous species using multiple methodologies. Lake and Reservoir Management, 2020, 36, 432-443.	1.3	5
118	Consistent, long-term change in rotifer community composition across four Polish lakes. Hydrobiologia, 2009, 624, 107-114.	2.0	4
119	Dead and gone: Steam exposure kills layered clumps of invasive curly waterweed Lagarosiphon major. Aquatic Botany, 2020, 162, 103204.	1.6	3
120	Globalization, biological invasions, and ecosystem changes in North America's Great Lakes. , 2001, , 156-182.		2
121	Efficacy of NaCl brine for treatment of ballast water against freshwater invasions. Journal of Great Lakes Research, 2012, 38, 72-77.	1.9	2
122	Touch too much: aquatic disinfectant and steam exposure treatments can inhibit further spread of invasive bloody-red mysid shrimp Hemimysis anomala. Wetlands Ecology and Management, 2020, 28, 397-402.	1.5	2
123	ï»¿Predatory ability and abundance forecast the ecological impacts of two aquatic invasive species. NeoBiota, 0, 71, 91-112.	1.0	2