

Michael R Heath

List of Publications by Year in descending order

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Version: 2024-02-01

66
papers

2,307
citations

218381

26
h-index

223531

46
g-index

69
all docs

69
docs citations

69
times ranked

3034
citing authors

#	ARTICLE	IF	CITATIONS
1	A Dark Hole in Our Understanding of Marine Ecosystems and Their Services: Perspectives from the Mesopelagic Community. <i>Frontiers in Marine Science</i> , 2016, 3, .	1.2	180
2	Seasonal copepod lipid pump promotes carbon sequestration in the deep North Atlantic. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 12122-12126.	3.3	178
3	The North Atlantic Ocean as habitat for <i>Calanus finmarchicus</i> : Environmental factors and life history traits. <i>Progress in Oceanography</i> , 2014, 129, 244-284.	1.5	163
4	Changes in the structure and function of the North Sea fish foodweb, 1973â€“2000, and the impacts of fishing and climate. <i>ICES Journal of Marine Science</i> , 2005, 62, 847-868.	1.2	133
5	Understanding patterns and processes in models of trophic cascades. <i>Ecology Letters</i> , 2014, 17, 101-114.	3.0	123
6	Comparative ecology of over-wintering <i>Calanus finmarchicus</i> in the northern North Atlantic, and implications for life-cycle patterns. <i>ICES Journal of Marine Science</i> , 2004, 61, 698-708.	1.2	108
7	Review of climate change impacts on marine fish and shellfish around the UK and Ireland. <i>Aquatic Conservation: Marine and Freshwater Ecosystems</i> , 2012, 22, 337-367.	0.9	98
8	Making modelling count - increasing the contribution of shelf-seas community and ecosystem models to policy development and management. <i>Marine Policy</i> , 2015, 61, 291-302.	1.5	81
9	Cascading ecological effects of eliminating fishery discards. <i>Nature Communications</i> , 2014, 5, 3893.	5.8	70
10	A general framework for combining ecosystem models. <i>Fish and Fisheries</i> , 2018, 19, 1031-1042.	2.7	66
11	A model of meta-population dynamics for North Sea and West of Scotland codâ€”The dynamic consequences of natal fidelity. <i>Fisheries Research</i> , 2008, 93, 92-116.	0.9	58
12	An hypothesis concerning the space-time succession of <i>Calanus finmarchicus</i> in the northern North Sea. <i>ICES Journal of Marine Science</i> , 1994, 51, 169-180.	1.2	57
13	A synthetic map of the north-west European Shelf sedimentary environment for applications in marine science. <i>Earth System Science Data</i> , 2018, 10, 109-130.	3.7	56
14	Fishery-induced changes to age and length dependent maturation schedules of three demersal fish species in the Firth of Clyde. <i>Fisheries Research</i> , 2015, 170, 14-23.	0.9	52
15	Basinâ€”scale advection and population persistence of <i>Calanus finmarchicus</i> . <i>Fisheries Oceanography</i> , 1998, 7, 235-244.	0.9	51
16	Modelling the basin-scale demography of <i>Calanus finmarchicus</i> in the north-east Atlantic. <i>Fisheries Oceanography</i> , 2005, 14, 333-358.	0.9	46
17	Global sensitivity analysis of an end-to-end marine ecosystem model of the North Sea: Factors affecting the biomass of fish and benthos. <i>Ecological Modelling</i> , 2014, 273, 251-263.	1.2	46
18	Combination of genetics and spatial modelling highlights the sensitivity of cod (<i>Gadus morhua</i>) population diversity in the North Sea to distributions of fishing. <i>ICES Journal of Marine Science</i> , 2014, 71, 794-807.	1.2	45

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19	A comparative study of the ecosystem dynamics of four fiords. <i>Limnology and Oceanography</i> , 1994, 39, 318-343.	1.6	41
20	Modelling the spatial demography of Atlantic cod (<i>Gadus morhua</i>) on the European continental shelf. <i>Canadian Journal of Fisheries and Aquatic Sciences</i> , 2006, 63, 1027-1048.	0.7	34
21	Ecosystem limits to food web fluxes and fisheries yields in the North Sea simulated with an end-to-end food web model. <i>Progress in Oceanography</i> , 2012, 102, 42-66.	1.5	33
22	Changes in species diversity and size composition in the Firth of Clyde demersal fish community (1927-2009). <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2012, 279, 543-552.	1.2	32
23	Lipid content in overwintering <i>Calanus finmarchicus</i> across the Subpolar Eastern North Atlantic Ocean. <i>Limnology and Oceanography</i> , 2019, 64, 2029-2043.	1.6	32
24	Spring production of <i>Calanus finmarchicus</i> at the Iceland-Scotland Ridge. <i>Deep-Sea Research Part I: Oceanographic Research Papers</i> , 2008, 55, 471-489.	0.6	30
25	On the surprising lack of differences between two congeneric calanoid copepod species, <i>Calanus finmarchicus</i> and <i>C. helgolandicus</i> . <i>Progress in Oceanography</i> , 2015, 134, 413-431.	1.5	28
26	Simulating spatially and physiologically structured populations. <i>Journal of Animal Ecology</i> , 2001, 70, 881-894.	1.3	27
27	The consumption of zooplankton by early life stages of fish in the North Sea. <i>ICES Journal of Marine Science</i> , 2007, 64, 1650-1663.	1.2	27
28	Larval mortality rates and population dynamics of Lesser Sandeel (<i>Ammodytes marinus</i>) in the northwestern North Sea. <i>Journal of Marine Systems</i> , 2012, 93, 47-57.	0.9	27
29	Projected impacts of 21st century climate change on diapause in <i>Calanus finmarchicus</i> . <i>Global Change Biology</i> , 2016, 22, 3332-3340.	4.2	26
30	Increasing turbidity in the North Sea during the 20th century due to changing wave climate. <i>Ocean Science</i> , 2019, 15, 1615-1625.	1.3	24
31	Modelling the sensitivity of suspended sediment profiles to tidal current and wave conditions. <i>Ocean and Coastal Management</i> , 2017, 147, 49-66.	2.0	21
32	Regional variability in the trophic requirements of shelf sea fisheries in the Northeast Atlantic, 1973-2000. <i>ICES Journal of Marine Science</i> , 2005, 62, 1233-1244.	1.2	20
33	Understanding demography in an advective environment: modelling <i>Calanus finmarchicus</i> in the Norwegian Sea. <i>Journal of Animal Ecology</i> , 2004, 73, 897-910.	1.3	19
34	Modelling length-at-age variability under irreversible growth. <i>Canadian Journal of Fisheries and Aquatic Sciences</i> , 2007, 64, 638-653.	0.7	19
35	Statistical Modeling of Variability in Sediment-Water Nutrient and Oxygen Fluxes. <i>Frontiers in Earth Science</i> , 2016, 4, .	0.8	17
36	Comment on "A Global Map of Human Impact on Marine Ecosystems". <i>Science</i> , 2008, 321, 1446-1446.	6.0	16

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37	Smooth age length keys: Observations and implications for data collection on North Sea haddock. Fisheries Research, 2010, 105, 2-12.	0.9	16
38	Population density and temperature correlate with long-term trends in somatic growth rates and maturation schedules of herring and sprat. PLoS ONE, 2019, 14, e0212176.	1.1	16
39	Hind-Casting the Quantity and Composition of Discards by Mixed Demersal Fisheries in the North Sea. PLoS ONE, 2015, 10, e0117078.	1.1	14
40	Modelling sea level surges in the Firth of Clyde, a fjordic embayment in south-west Scotland. Natural Hazards, 2016, 84, 1601-1623.	1.6	14
41	The effect of viral plasticity on the persistence of host-virus systems. Journal of Theoretical Biology, 2020, 498, 110263.	0.8	13
42	Spatial Modeling of Calanus finmarchicus and Calanus helgolandicus: Parameter Differences Explain Differences in Biogeography. Frontiers in Marine Science, 2016, 3, .	1.2	12
43	Population trends of bycatch species reflect improving status of target species. Fish and Fisheries, 2018, 19, 455-470.	2.7	12
44	Landscape effects on demersal fish revealed by field observations and predictive seabed modelling. PLoS ONE, 2017, 12, e0189011.	1.1	12
45	Investigating trends in the growth of five demersal fish species from the Firth of Clyde and the wider western shelf of Scotland. Fisheries Research, 2016, 177, 71-81.	0.9	11
46	Modelling the effects of fishing on the North Sea fish community size composition. Ecological Modelling, 2016, 321, 35-45.	1.2	10
47	Exploring the Influence of Food and Temperature on North Sea Sandeels Using a New Dynamic Energy Budget Model. Frontiers in Marine Science, 2018, 5, .	1.2	10
48	Modelling wave-current interactions off the east coast of Scotland. Ocean Science, 2016, 12, 875-897.	1.3	9
49	The Impact of Fisheries Discards on Scavengers in the Sea. , 2019, , 129-162.		8
50	S<sc>trath</sc>E2E2: An <sc>r</sc> package for modelling the dynamics of marine food webs and fisheries. Methods in Ecology and Evolution, 2021, 12, 280-287.	2.2	8
51	Ecosystem approach to harvesting in the Arctic: Walking the tightrope between exploitation and conservation in the Barents Sea. Ambio, 2021, , 1.	2.8	8
52	On the Role of Biogeochemical Coupling Between Sympagic and Pelagic Ecosystem Compartments for Primary and Secondary Production in the Barents Sea. Frontiers in Environmental Science, 2020, 8, .	1.5	8
53	Changes in the structure and function of the North Sea fish foodweb, 1973-2000, and the impacts of fishing and climate. ICES Journal of Marine Science, 2005, 62, 1202-1202.	1.2	7
54	Trends in Sandeel Growth and Abundance off the East Coast of Scotland. Frontiers in Marine Science, 2019, 6, .	1.2	6

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55	A fleet based surplus production model that accounts for increases in fishing power with application to two West African pelagic stocks. <i>Fisheries Research</i> , 2021, 243, 106048.	0.9	6
56	The Response of North Sea Ecosystem Functional Groups to Warming and Changes in Fishing. <i>Frontiers in Marine Science</i> , 2022, 9, .	1.2	5
57	Solid evidence or fluid ideas on the importance lipid phase transitions to diapausing copepods. <i>Journal of Plankton Research</i> , 2013, 35, 438-440.	0.8	4
58	Survival of the fittest: Explanations for gadoid imbalance in heavily fished seas. <i>Aquatic Conservation: Marine and Freshwater Ecosystems</i> , 2018, 28, 1192-1199.	0.9	3
59	Modelling seabed sediment physical properties and organic matter content in the Firth of Clyde. <i>Earth System Science Data</i> , 2021, 13, 5847-5866.	3.7	3
60	The onset of the spring phytoplankton bloom in the coastal North Sea supports the Disturbance Recovery Hypothesis. <i>Biogeosciences</i> , 2022, 19, 2417-2426.	1.3	2
61	Unconstrained coevolution of bacterial size and the latent period of plastic phage. <i>PLoS ONE</i> , 2022, 17, e0268596.	1.1	2
62	Evolutionarily Stable Coevolution Between a Plastic Lytic Virus and Its Microbial Host. <i>Frontiers in Microbiology</i> , 2021, 12, 637490.	1.5	1
63	Subtle Differences in the Representation of Consumer Dynamics Have Large Effects in Marine Food Web Models. <i>Frontiers in Marine Science</i> , 2021, 8, .	1.2	1
64	Spatio-temporal variation in the zooplankton prey of lesser sandeels: species and community trait patterns from the Continuous Plankton Recorder. <i>ICES Journal of Marine Science</i> , 2022, 79, 1649-1661.	1.2	1
65	Timing of Sandeel Spawning and Hatching Off the East Coast of Scotland. <i>Frontiers in Marine Science</i> , 2019, 6, .	1.2	0
66	Synthetic shelf sediment maps for the Greenland Sea and Barents Sea. <i>Geoscience Data Journal</i> , 0, , .	1.8	0