Christian MÃ¶llmann

List of Publications by Year
in descending order

110 papers	6,615 citations	53794 45 h-index	66911 78 g-index
114 all docs	114 docs citations	114 times ranked	5934 citing authors

#	Article	IF	Citations
1	Resolving the effect of climate change on fish populations. ICES Journal of Marine Science, 2009, 66, 1570-1583.	2.5	537
2	Reorganization of a large marine ecosystem due to atmospheric and anthropogenic pressure: a discontinuous regime shift in the Central Baltic Sea. Global Change Biology, 2009, 15, 1377-1393.	9.5	319
3	Synchronous ecological regime shifts in the central Baltic and the North Sea in the late 1980s. ICES Journal of Marine Science, 2005, 62, 1205-1215.	2.5	318
4	Sensitivity of marine systems to climate and fishing: Concepts, issues and management responses. Journal of Marine Systems, 2010, 79, 427-435.	2.1	235
5	Effects of climate and overfishing on zooplankton dynamics and ecosystem structure: regime shifts, trophic cascade, and feedback loops in a simple ecosystem. ICES Journal of Marine Science, 2008, 65, 302-310.	2.5	216
6	Baltic cod recruitment â€" the impact of climate variability on key processes. ICES Journal of Marine Science, 2005, 62, 1408-1425.	2.5	204
7	Interaction between top-down and bottom-up control in marine food webs. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 1952-1957.	7.1	202
8	Trophodynamic control by clupeid predators on recruitment success in Baltic cod?. ICES Journal of Marine Science, 2000, 57, 310-323.	2.5	192
9	Impact of 21st century climate change on the Baltic Sea fish community and fisheries. Global Change Biology, 2007, 13, 1348-1367.	9.5	165
10	Using indicators for evaluating, comparing, and communicating the ecological status of exploited marine ecosystems. 2. Setting the scene. ICES Journal of Marine Science, 2010, 67, 692-716.	2.5	156
11	Feeding ecology of central Baltic Sea herring and sprat. Journal of Fish Biology, 2004, 65, 1563-1581.	1.6	148
12	Long-term dynamics of main mesozooplankton species in the central Baltic Sea. Journal of Plankton Research, 2000, 22, 2015-2038.	1.8	141
13	A holistic view of marine regime shifts. Philosophical Transactions of the Royal Society B: Biological Sciences, 2015, 370, 20130279.	4.0	131
14	Preventing the collapse of the Baltic cod stock through an ecosystem-based management approach. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 14722-14727.	7.1	124
15	Climate, zooplankton, and pelagic fish growth in the central Baltic Sea. ICES Journal of Marine Science, 2005, 62, 1270-1280.	2.5	120
16	Biophysical modeling of larval Baltic cod (Gadus morhua) growth and survival. Canadian Journal of Fisheries and Aquatic Sciences, 2002, 59, 1858-1873.	1.4	118
17	Marine Ecosystem Regime Shifts Induced by Climate and Overfishing. Advances in Ecological Research, 2012, 47, 303-347.	2.7	118
18	Recruitment of Baltic cod and sprat stocks: identification of critical life stages and incorporation of environmental variability into stock-recruitment relationships. Scientia Marina, 2003, 67, 129-154.	0.6	117

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19	Marine regime shifts around the globe: theory, drivers and impacts. Philosophical Transactions of the Royal Society B: Biological Sciences, 2015, 370, 20130260.	4.0	102
20	Making the ecosystem approach operationalâ€"Can regime shifts in ecological- and governance systems facilitate the transition?. Marine Policy, 2010, 34, 1290-1299.	3.2	99
21	The North Sea â€" A shelf sea in the Anthropocene. Journal of Marine Systems, 2015, 141, 18-33.	2.1	99
22	Predator transitory spillover induces trophic cascades in ecological sinks. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 8185-8189.	7.1	98
23	Implementing ecosystem-based fisheries management: from single-species to integrated ecosystem assessment and advice for Baltic Sea fish stocks. ICES Journal of Marine Science, 2014, 71, 1187-1197.	2.5	92
24	Population dynamics of calanoid copepods and the implications of their predation by clupeid fish in the Central Baltic Sea. Journal of Plankton Research, 2002, 24, 959-978.	1.8	91
25	The marine copepod, Pseudocalanus elongatus , as a mediator between climate variability and fisheries in the Central Baltic Sea. Fisheries Oceanography, 2003, 12, 360-368.	1.7	91
26	Biological ensemble modeling to evaluate potential futures of living marine resources. Ecological Applications, 2013, 23, 742-754.	3.8	89
27	Marine ecosystem regime shifts: challenges and opportunities for ecosystem-based management. Philosophical Transactions of the Royal Society B: Biological Sciences, 2015, 370, 20130275.	4.0	87
28	Recruitment variability in Baltic Sea sprat (Sprattus sprattus) is tightly coupled to temperature and transport patterns affecting the larval and early juvenile stages. Canadian Journal of Fisheries and Aquatic Sciences, 2006, 63, 2191-2201.	1.4	84
29	Spatial and temporal density dependence regulates the condition of central Baltic Sea clupeids: compelling evidence using an extensive international acoustic survey. Population Ecology, 2011, 53, 511-523.	1.2	84
30	Ecological forecasting under climate change: the case of Baltic cod. Proceedings of the Royal Society B: Biological Sciences, 2010, 277, 2121-2130.	2.6	81
31	The Role of Body Size in Complex Food Webs. Advances in Ecological Research, 2011, 45, 181-223.	2.7	79
32	Marine snow, zooplankton and thin layers: indications of a trophic link from small-scale sampling with the Video Plankton Recorder. Marine Ecology - Progress Series, 2012, 468, 57-69.	1.9	77
33	Early Detection of Ecosystem Regime Shifts: A Multiple Method Evaluation for Management Application. PLoS ONE, 2012, 7, e38410.	2.5	72
34	Ecosystemâ€Based Fisheries Management for Socialâ€"Ecological Systems: Renewing the Focus in the United States with <i>Next Generation</i> Fishery Ecosystem Plans. Conservation Letters, 2018, 11, e12367.	5.7	68
35	Feeding ecology of Central Baltic sprat Sprattus sprattus larvae in relation to zooplankton dynamics: implications for survival. Marine Ecology - Progress Series, 2007, 342, 277-289.	1.9	66
36	Developing Baltic cod recruitment models. I. Resolving spatial and temporal dynamics of spawning stock and recruitment for cod, herring, and sprat. Canadian Journal of Fisheries and Aquatic Sciences, 2001, 58, 1516-1533.	1.4	56

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37	Climate and fishing steer ecosystem regeneration to uncertain economic futures. Proceedings of the Royal Society B: Biological Sciences, 2015, 282, 20142809.	2.6	52
38	Trophic dynamics. , 2001, , 112-157.		52
39	Spatio-temporal distribution and production of calanoid copepods in the central Baltic Sea. Journal of Plankton Research, 2006, 28, 39-54.	1.8	51
40	Pelagic effects of offshore wind farm foundations in the stratified North Sea. Progress in Oceanography, 2017, 156, 154-173.	3.2	51
41	Building effective fishery ecosystem plans. Marine Policy, 2018, 92, 48-57.	3.2	51
42	Food consumption by clupeids in the Central Baltic: evidence for top-down control?. ICES Journal of Marine Science, 1999, 56, 100-113.	2.5	51
43	Assessing Social â€“ Ecological Trade-Offs to Advance Ecosystem-Based Fisheries Management. PLoS ONE, 2014, 9, e107811.	2.5	50
44	Regime shifts, resilience and recovery of a cod stock. Marine Ecology - Progress Series, 2010, 402, 239-253.	1.9	49
45	Catastrophic dynamics limit Atlantic cod recovery. Proceedings of the Royal Society B: Biological Sciences, 2019, 286, 20182877.	2.6	48
46	Effect of environmental variability and spawner characteristics on the recruitment of Baltic herring Clupea harengus populations. Marine Ecology - Progress Series, 2009, 388, 221-234.	1.9	47
47	Egg cannibalism in Baltic sprat Sprattus sprattus. Marine Ecology - Progress Series, 2000, 196, 269-277.	1.9	47
48	Tipping point realized in cod fishery. Scientific Reports, 2021, 11, 14259.	3.3	46
49	Dependency of larval fish survival on retention/dispersion in food limited environments: the Baltic Sea as a case study. Fisheries Oceanography, 2003, 12, 425-433.	1.7	44
50	Marine fish traits follow fast-slow continuum across oceans. Scientific Reports, 2019, 9, 17878.	3.3	38
51	Exploring the temporal variability of a food web using longâ€ term biomonitoring data. Ecography, 2019, 42, 2107-2121.	4.5	36
52	Spatio-temporal distribution of Oithona similis in the Bornholm Basin (Central Baltic Sea). Journal of Plankton Research, 2004, 26, 659-668.	1.8	34
53	Bringing integrated ecosystem assessments to real life: a scientific framework for ICES. ICES Journal of Marine Science, 2014, 71, 1183-1186.	2.5	34
54	Uses of Innovative Modeling Tools within the Implementation of the Marine Strategy Framework Directive. Frontiers in Marine Science, 2016, 3, .	2.5	32

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55	Feeding ecology of pelagic fish species in the Gulf of Riga (Baltic Sea): the importance of changes in the zooplankton community. Journal of Fish Biology, 2010, 77, 2268-2284.	1.6	28
56	A model-based evaluation of Marine Protected Areas: the example of eastern Baltic cod (Gadus morhua) Tj ETQq0 0 0 rgBT /Overlock 10	2.5	26
57	Habitat Heterogeneity Determines Climate Impact on Zooplankton Community Structure and Dynamics. PLoS ONE, 2014, 9, e90875.	2.5	25
58	Non-linearity in stockâ€"recruitment relationships of Atlantic cod: insights from a multi-model approach. ICES Journal of Marine Science, 2020, 77, 1492-1502.	2.5	23
59	Scientific knowledge of biological processes potentially useful in fish stock predictions. Scientia Marina, 2003, 67, 101-127.	0.6	23
60	Gillnet fishersâ€™ knowledge reveals seasonality in depth and habitat use of cod (Gadus morhua) in the Western Baltic Sea. ICES Journal of Marine Science, 2020, 77, 1816-1829.	2.5	22
61	The Baltic Health Index (BHI): Assessing the socialâ€"ecological status of the Baltic Sea. People and Nature, 2021, 3, 359-375.	3.7	21
62	AIS and VMS Ensemble Can Address Data Gaps on Fisheries for Marine Spatial Planning. Sustainability, 2021, 13, 3769.	3.2	21
63	Survival probability of Baltic larval cod in relation to spatial overlap patterns with their prey obtained from drift model studies. ICES Journal of Marine Science, 2005, 62, 878-885.	2.5	19
64	Community ecology in 3D: Tensor decomposition reveals spatio-temporal dynamics of large ecological communities. PLoS ONE, 2017, 12, e0188205.	2.5	19
65	Long-term trends in abundance of cladocerans in the Central Baltic Sea. Marine Biology, 2002, 141, 343-352.	1.5	18
66	Comparative analysis of European wide marine ecosystem shifts: a large-scale approach for developing the basis for ecosystem-based management. Biology Letters, 2011, 7, 484-486.	2.3	18
67	Effects of climate-induced habitat changes on a key zooplankton species. Journal of Plankton Research, 2015, 37, 530-541.	1.8	18
68	The importance of within-system spatial variation in drivers of marine ecosystem regime shifts. Philosophical Transactions of the Royal Society B: Biological Sciences, 2015, 370, 20130271.	4.0	18
69	Life Cycle Dynamics of a Key Marine Species Under Multiple Stressors. Frontiers in Marine Science, 2020, 7, .	2.5	18
70	Developing Baltic cod recruitment models. I. Resolving spatial and temporal dynamics of spawning stock and recruitment for cod, herring, and sprat. Canadian Journal of Fisheries and Aquatic Sciences, 2001, 58, 1516-1533.	1.4	18
71	Vertical zonation of the zooplankton community in the Central Baltic Sea in relation to hydrographic stratification as revealed by multivariate discriminant function and canonical analysis. Journal of Marine Systems, 2007, 67, 47-58.	2.1	16
72	Rationale for Restocking the Eastern Baltic Cod Stock. Reviews in Fisheries Science, 2008, 16, 58-64.	2.1	16

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73	Comparative analysis of marine ecosystems: workshop on predatorâ€“prey interactions. Biology Letters, 2010, 6, 579-581.	2.3	16
74	Biomanipulation: a tool in marine ecosystem management and restoration?. Ecological Applications, 2010, 20, 2237-2248.	3.8	16
75	Depleted marine fish stocks and ecosystem-based management: on the road to recovery, we need to be precautionary. ICES Journal of Marine Science, 2011, 68, 212-220.	2.5	16
76	The forgotten feeding ground: patterns in seasonal and depthâ€specific food intake of adult cod <scp><i>Gadus morhua</i></scp> in the western Baltic Sea. Journal of Fish Biology, 2021, 98, 707-722.	1.6	16
77	Water masses and oceanic eddy regulation of larval fish assemblages along the Cape Verde Frontal Zone. Journal of Marine Systems, 2018, 183, 42-55.	2.1	15
78	A morphometric dive into fish diversity. Ecosphere, 2018, 9, e02220.	2.2	15
79	Insights on integrating habitat preferences in process-oriented ecological models â€“ a case study of the southern North Sea. Ecological Modelling, 2020, 431, 109189.	2.5	15
80	Perception and Conflict in Conservation: The Rashomon Effect. BioScience, 2021, 71, 64-72.	4.9	15
81	Interactions among density, climate, and food web effects determine long-term life cycle dynamics of a key copepod. Marine Ecology - Progress Series, 2014, 498, 73-84.	1.9	15
82	A novel length back-calculation approach accounting for ontogenetic changes in the fish lengthÂâ€“ otolith size relationship during the early life of sprat (<i>Sprattus sprattus</i>). Canadian Journal of Fisheries and Aquatic Sciences, 2012, 69, 1214-1229.	1.4	14
83	Ecological-Economic Fisheries Management Adviceâ€"Quantification of Potential Benefits for the Case of the Eastern Baltic COD Fishery. Frontiers in Marine Science, 2017, 4, .	2.5	14
84	Spatial variation in the trophic structure of micronekton assemblages from the eastern tropical North Atlantic in two regions of differing productivity and oxygen environments. Deep-Sea Research Part I: Oceanographic Research Papers, 2020, 163, 103275.	1.4	14
85	The rise of novelty in marine ecosystems: The Baltic Sea case. Global Change Biology, 2021, 27, 1485-1499.	9.5	14
86	Climate-related Marine Ecosystem Change. , 2008, , 309-377.		12
87	Trophic positioning of prominent copepods in the epi- and mesopelagic zone of the ultra-oligotrophic eastern Mediterranean Sea. Deep-Sea Research Part II: Topical Studies in Oceanography, 2019, 164, 144-155.	1.4	12
88	Beauty is in the eye of the beholder: management of Baltic cod stock requires an ecosystem approach. Marine Ecology - Progress Series, 2011, 431, 293-297.	1.9	12
89	Does upwelling intensity determine larval fish habitats in upwelling ecosystems? The case of Senegal and Mauritania. Fisheries Oceanography, 2017, 26, 655-667.	1.7	10
90	Integrating diverse model results into decision support for good environmental status and blue growth. Science of the Total Environment, 2022, 806, 150450.	8.0	10

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91	Community structure of mesopelagic fishes constituting sound scattering layers in the eastern tropical North Atlantic. Journal of Marine Systems, 2021, 224, 103635.	2.1	10
92	Trophic decoupling of mesozooplankton production and the pelagic planktivores sprat Sprattus sprattus and herring Clupea harengus in the Central Baltic Sea. Marine Ecology - Progress Series, 2018, 592, 181-196.	1.9	9
93	Lengthâ€“weight relationships of 55 mesopelagic fishes from the eastern tropical <scp>North Atlantic</scp>: Acrossâ€•and withinâ€species variation (body shape, growth stanza, condition factor). Journal of Fish Biology, 2022, 101, 26-41.	1.6	9
94	Fish Stock Development under Hydrographic and Hydrochemical Aspects, the History of Baltic Sea Fisheries and Its Management. , 0, , 543-581.		8
95	Modeling and understanding <scp>socialâ€“ecological</scp> knowledge diversity. Conservation Science and Practice, 2021, 3, e396.	2.0	8
96	Environmental controls of billfish species in the Indian Ocean and implications for their management and conservation. Diversity and Distributions, 2022, 28, 1554-1567.	4.1	8
97	A three-dimensional view on biodiversity changes: spatial, temporal, and functional perspectives on fish communities in the Baltic Sea. ICES Journal of Marine Science, 2018, 75, 2463-2475.	2.5	7
98	Case studies demonstrate capacity for a structured planning process for ecosystem-based fisheries management. Canadian Journal of Fisheries and Aquatic Sciences, 2020, 77, 1256-1274.	1.4	7
99	Evidence for limited adaptive responsiveness to large-scale spatial variation of habitat quality. Marine Ecology - Progress Series, 2019, 629, 179-191.	1.9	7
100	Food-web and climate-related dynamics in the Baltic Sea: present and potential future applications in fish stock assessment and management. , 0, , 9-31.		6
101	Towards Integrated Ecosystem Assessments (IEAs) of the Baltic Sea: Investigating Ecosystem State and Historical Development. , 2012, , 161-199.		6
102	Zooplankton distribution, growth and respiration in the Cretan Passage, Eastern Mediterranean. Deep-Sea Research Part II: Topical Studies in Oceanography, 2019, 164, 156-169.	1.4	6
103	Winter zooplankton dynamics in the English Channel and southern North Sea: trends and drivers from 1991 to 2013. Journal of Plankton Research, 2021, 43, 244-256.	1.8	3
104	Mapping fish community biodiversity for European marine policy requirements. ICES Journal of Marine Science, 2017, 74, 2223-2238.	2.5	2
105	Valuing Biodiversity and Ecosystem Services in a Complex Marine Ecosystem. , 2015, , 189-207.		1
106	Predation risk triggers copepod small-scale behavior in the Baltic Sea. Journal of Plankton Research, 2020, 42, 702-713.	1.8	1
107	Towards Non-invasive Fish Monitoring in Hard-to-Access Habitats Using Autonomous Underwater Vehicles and Machine Learning. , 2021, , .		1
108	Traits, landmarks and outlines: Three congruent sides of a tale on coral reef fish morphology. Ecology and Evolution, 2022, 12, e8787.	1.9	1

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109	Process-based model for direct and indirect effects of hydrographic conditions on Central Baltic cod (Gadus morhua) egg mortality. Fisheries Oceanography, 2008, 17, 84-88.	1.7	0
110	Dynamics of marine ecosystems: observation and experimentation. , 2010, , 129-178.		0