Charles A Stock

List of Publications by Year
in descending order

101 papers	6,972 citations	61984 43 h-index	64796 79 g-index
107 all docs	107 docs citations	107 times ranked	7735 citing authors

#	Article	IF	Citations
1	Global ensemble projections reveal trophic amplification of ocean biomass declines with climate change. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 12907-12912.	7.1	357
2	Twenty-first century ocean warming, acidification, deoxygenation, and upper-ocean nutrient and primary production decline from CMIP6 model projections. Biogeosciences, 2020, 17, 3439-3470.	3.3	348
3	The GFDL Earth System Model Version 4.1 (GFDLâ€ESM 4.1): Overall Coupled Model Description and Simulation Characteristics. Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS002015.	3.8	277
4	On the use of IPCC-class models to assess the impact of climate on Living Marine Resources. Progress in Oceanography, 2011, 88, 1-27.	3.2	272
5	Re-examination of the relationship between marine virus and microbial cell abundances. Nature Microbiology, 2016, 1, 15024.	13.3	264
6	How well do global ocean biogeochemistry models simulate dissolved iron distributions?. Global Biogeochemical Cycles, 2016, 30, 149-174.	4.9	230
7	A multitrophic model to quantify the effects of marine viruses on microbial food webs and ecosystem processes. ISME Journal, 2015, 9, 1352-1364.	9.8	223
8	Intensification of open-ocean oxygen depletion by vertically migrating animals. Nature Geoscience, 2013, 6, 545-548.	12.9	209
9	Anthropogenic climate change drives shift and shuffle in North Atlantic phytoplankton communities. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 2964-2969.	7.1	204
10	Reconciling fisheries catch and ocean productivity. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E1441-E1449.	7.1	195
11	Pathways between Primary Production and Fisheries Yields of Large Marine Ecosystems. PLoS ONE, 2012, 7, e28945.	2.5	187
12	Global-scale carbon and energy flows through the marine planktonic food web: An analysis with a coupled physicalâ€“biological model. Progress in Oceanography, 2014, 120, 1-28.	3.2	183
13	Managing living marine resources in a dynamic environment: The role of seasonal to decadal climate forecasts. Progress in Oceanography, 2017, 152, 15-49.	3.2	165
14	Alexandrium fundyense cyst dynamics in the Gulf of Maine. Deep-Sea Research Part II: Topical Studies in Oceanography, 2005, 52, 2522-2542.	1.4	163
15	Tracking Improvement in Simulated Marine Biogeochemistry Between CMIP5 and CMIP6. Current Climate Change Reports, 2020, 6, 95-119.	8.6	155
16	Sources of uncertainties in 21st century projections of potential ocean ecosystem stressors. Global Biogeochemical Cycles, 2016, 30, 1224-1243.	4.9	142
17	Structural uncertainty in projecting global fisheries catches under climate change. Ecological Modelling, 2016, 325, 57-66.	2.5	124
18	A protocol for the intercomparison of marine fishery and ecosystem models: Fish-MIP v1.0. Geoscientific Model Development, 2018, 11, 1421-1442.	3.6	116

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19	Diel vertical migration: Ecological controls and impacts on the biological pump in a oneâ€dimensional ocean model. Global Biogeochemical Cycles, 2013, 27, 478-491.	4.9	113
20	Building confidence in projections of the responses of living marine resources to climate change. ICES Journal of Marine Science, 2016, 73, 1283-1296.	2.5	106
21	Global oceanic emission of ammonia: Constraints from seawater and atmospheric observations. Global Biogeochemical Cycles, 2015, 29, 1165-1178.	4.9	96
22	Next-generation ensemble projections reveal higher climate risks for marine ecosystems. Nature Climate Change, 2021, 11, 973-981.	18.8	96
23	Climate change impacts on mismatches between phytoplankton blooms and fish spawning phenology. Global Change Biology, 2019, 25, 2544-2559.	9.5	93
24	A mechanism for offshore initiation of harmful algal blooms in the coastal Gulf of Maine. Journal of Plankton Research, 2003, 25, 1131-1138.	1.8	92
25	Drivers of trophic amplification of ocean productivity trends in a changing climate. Biogeosciences, 2014, 11, 7125-7135.	3.3	86
26	Temperature and oxygen dependence of the remineralization of organic matter. Global Biogeochemical Cycles, 2017, 31, 1038-1050.	4.9	86
27	Projected response of an endangered marine turtle population to climate change. Nature Climate Change, 2012, 2, 814-820.	18.8	79
28	Climate Driven Egg and Hatchling Mortality Threatens Survival of Eastern Pacific Leatherback Turtles. PLoS ONE, 2012, 7, e37602.	2.5	78
29	Seasonal sea surface temperature anomaly prediction for coastal ecosystems. Progress in Oceanography, 2015, 137, 219-236.	3.2	75
30	Improved management of small pelagic fisheries through seasonal climate prediction. Ecological Applications, 2017, 27, 378-388.	3.8	72
31	Projecting Marine Mammal Distribution in a Changing Climate. Frontiers in Marine Science, 2017, 4, .	2.5	72
32	Evaluating hypotheses for the initiation and development of Alexandrium fundyense blooms in the western Gulf of Maine using a coupled physicalâ€"biological model. Deep-Sea Research Part II: Topical Studies in Oceanography, 2005, 52, 2715-2744.	1.4	70
33	Ocean Biogeochemistry in GFDL's Earth System Model 4.1 and Its Response to Increasing Atmospheric CO₂. Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS002043.	3.8	70
34	Energy Flow Through Marine Ecosystems: Confronting Transfer Efficiency. Trends in Ecology and Evolution, 2021, 36, 76-86.	8.7	70
35	The global ocean is an ecosystem: simulating marine life and fisheries. Global Ecology and Biogeography, 2015, 24, 507-517.	5.8	68
36	Gelatinous Zooplanktonâ€Mediated Carbon Flows in the Global Oceans: A Dataâ€Driven Modeling Study. Global Biogeochemical Cycles, 2020, 34, e2020GB006704.	4.9	66

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37	Seasonal to multiannual marine ecosystem prediction with a global Earth system model. Science, 2019, 365, 284-288.	12.6	63
38	Cusk (Brosme brosme) and climate change: assessing the threat to a candidate marine fish species under the US Endangered Species Act. ICES Journal of Marine Science, 2012, 69, 1753-1768.	2.5	62
39	Controls on the ratio of mesozooplankton production to primary production in marine ecosystems. Deep-Sea Research Part I: Oceanographic Research Papers, 2010, 57, 95-112.	1.4	53
40	A Dynamically Downscaled Ensemble of Future Projections for the California Current System. Frontiers in Marine Science, 2021, 8, .	2.5	53
41	Projected ocean warming creates a conservation challenge for river herring populations. ICES Journal of Marine Science, 2015, 72, 374-387.	2.5	49
42	Phenology of phytoplankton blooms in the Nova Scotian Shelf-Gulf of Maine region: remote sensing and modeling analysis. Journal of Plankton Research, 2010, 32, 1485-1499.	1.8	48
43	Exploring the role of movement in determining the global distribution of marine biomass using a coupled hydrodynamic â€“ Size-based ecosystem model. Progress in Oceanography, 2015, 138, 521-532.	3.2	47
44	Bottomâ€“up and topâ€“down forcing in a simple size-structured plankton dynamics model. Journal of Marine Systems, 2008, 74, 134-152.	2.1	46
45	Bottom-up drivers of global patterns of demersal, forage, and pelagic fishes. Progress in Oceanography, 2019, 176, 102124.	3.2	46
46	On the skill of seasonal sea surface temperature forecasts in the California Current System and its connection to ENSO variability. Climate Dynamics, 2019, 53, 7519-7533.	3.8	44
47	The Response of the Northwest Atlantic Ocean to Climate Change. Journal of Climate, 2020, 33, 405-428.	3.2	44
48	Potential Salinity and Temperature Futures for the Chesapeake Bay Using a Statistical Downscaling Spatial Disaggregation Framework. Estuaries and Coasts, 2018, 41, 349-372.	2.2	42
49	Predicting the Evolution of the 2014â€“2016 California Current System Marine Heatwave From an Ensemble of Coupled Global Climate Forecasts. Frontiers in Marine Science, 2019, 6, .	2.5	42
50	Next-generation regional ocean projections for living marine resource management in a changing climate. ICES Journal of Marine Science, 2021, 78, 1969-1987.	2.5	42
51	Simulating Water Residence Time in the Coastal Ocean: A Global Perspective. Geophysical Research Letters, 2019, 46, 13910-13919.	4.0	41
52	Spring bloom dynamics and zooplankton biomass response on the US Northeast Continental Shelf. Continental Shelf Research, 2015, 102, 47-61.	1.8	40
53	Coupling planktonic ecosystem and fisheries food web models for a pelagic ecosystem: Description and validation for the subarctic Pacific. Ecological Modelling, 2012, 237-238, 43-62.	2.5	36
54	Modeling Global Ocean Biogeochemistry With Physical Data Assimilation: A Pragmatic Solution to the Equatorial Instability. Journal of Advances in Modeling Earth Systems, 2018, 10, 891-906.	3.8	35

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55	Net primary productivity estimates and environmental variables in the Arctic Ocean: An assessment of coupled physical-biogeochemical models. Journal of Geophysical Research: Oceans, 2016, 121, 8635-8669.	2.6	34
56	Prominence of the tropics in the recent rise of global nitrogen pollution. Nature Communications, 2019, 10, 1437.	12.8	32
57	Climateâ€induced decrease in biomass flow in marine food webs may severely affect predators and ecosystem production. Global Change Biology, 2021, 27, 2608-2622.	9.5	32
58	An ensemble highâ€resolution projection of changes in the future habitat of American lobster and sea scallop in the Northeast US continental shelf. Diversity and Distributions, 2020, 26, 987-1001.	4.1	31
59	Anthropogenic climate change impacts on copepod trait biogeography. Global Change Biology, 2021, 27, 1431-1442.	9.5	31
60	Effect of environmental conditions on juvenile recruitment of alewife (<i>Alosa pseudoharengus</i>) and blueback herring (<i>Alosa aestivalis</i>) in fresh water: a coastwide perspective. Canadian Journal of Fisheries and Aquatic Sciences, 2015, 72, 1037-1047.	1.4	29
61	More reliable coastal SST forecasts from the North American multimodel ensemble. Climate Dynamics, 2019, 53, 7153-7168.	3.8	28
62	Multi-Annual Climate Predictions for Fisheries: An Assessment of Skill of Sea Surface Temperature Forecasts for Large Marine Ecosystems. Frontiers in Marine Science, 2017, 4, .	2.5	27
63	Glacial Iron Sources Stimulate the Southern Ocean Carbon Cycle. Geophysical Research Letters, 2018, 45, 13,377.	4.0	27
64	Projections of the future occurrence, distribution, and seasonality of three <i>Vibrio</i> species in the Chesapeake Bay under a highâ€emission climate change scenario. GeoHealth, 2017, 1, 278-296.	4.0	26
65	Seasonal to interannual predictability of oceanic net primary production inferred from satellite observations. Progress in Oceanography, 2019, 170, 28-39.	3.2	26
66	Interannual variability in phytoplankton blooms and plankton productivity over the Nova Scotian Shelf and in the Gulf of Maine. Marine Ecology - Progress Series, 2011, 426, 105-118.	1.9	26
67	Amplification and attenuation of increased primary production in a marine food web. Marine Ecology - Progress Series, 2013, 491, 1-14.	1.9	24
68	Simple Global Ocean Biogeochemistry With Light, Iron, Nutrients and Gas Version 2 (BLINGv2): Model Description and Simulation Characteristics in GFDL's CM4.0. Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS002008.	3.8	24
69	Global ecological and biogeochemical impacts of pelagic tunicates. Progress in Oceanography, 2022, 205, 102822.	3.2	24
70	Trade-offs associated with different modeling approaches for assessment of fish and shellfish responses to climate change. Climatic Change, 2013, 119, 111-129.	3.6	23
71	Mechanistic insights into the effects of climate change on larval cod. Global Change Biology, 2014, 20, 1559-1584.	9.5	23
72	Ocean Chlorophyll as a Precursor of ENSO: An Earth System Modeling Study. Geophysical Research Letters, 2018, 45, 1939-1947.	4.0	23

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73	Response of O₂ and pH to ENSO in the California Current System in a high-resolution global climate model. Ocean Science, 2018, 14, 69-86.	3.4	23
74	A more productive, but different, ocean after mitigation. Geophysical Research Letters, 2015, 42, 9836-9845.	4.0	22
75	Simulated Global Coastal Ecosystem Responses to a Halfâ€Century Increase in River Nitrogen Loads. Geophysical Research Letters, 2021, 48, e2021GL094367.	4.0	22
76	Group behavior among model bacteria influences particulate carbon remineralization depths. Journal of Marine Research, 2014, 72, 183-218.	0.3	21
77	Data assimilative hindcast of the Gulf of Maine coastal circulation. Journal of Geophysical Research, 2005, 110, .	3.3	20
78	Surface winds from atmospheric reanalysis lead to contrasting oceanic forcing and coastal upwelling patterns. Ocean Modelling, 2019, 133, 79-111.	2.4	20
79	Large Pelagic Fish Are Most Sensitive to Climate Change Despite Pelagification of Ocean Food Webs. Frontiers in Marine Science, 2020, 7, .	2.5	20
80	A regional hindcast model simulating ecosystem dynamics, inorganic carbon chemistry, and ocean acidification in the Gulf of Alaska. Biogeosciences, 2020, 17, 3837-3857.	3.3	18
81	Impacts of Mesoscale Eddies on the Vertical Nitrate Flux in the Gulf Stream Region. Journal of Geophysical Research: Oceans, 2018, 123, 497-513.	2.6	16
82	An assessment of the predictability of column minimum dissolved oxygen concentrations in Chesapeake Bay using a machine learning model. Estuarine, Coastal and Shelf Science, 2019, 221, 53-65.	2.1	15
83	Blooms of the toxic dinoflagellate Alexandrium fundyense in the western Gulf of Maine in 1993 and 1994: A comparative modeling study. Continental Shelf Research, 2007, 27, 2486-2512.	1.8	13
84	Impact of climate warming on upper layer of the Bering Sea. Climate Dynamics, 2013, 40, 327-340.	3.8	11
85	What processes contribute to the spring and fall bloom co-variability on the Eastern Bering Sea shelf?. Deep-Sea Research Part II: Topical Studies in Oceanography, 2016, 134, 128-140.	1.4	11
86	Emergent global biogeography of marine fish food webs. Global Ecology and Biogeography, 2021, 30, 1822-1834.	5.8	10
87	A Numerical Model Analysis of the Mean and Seasonal Nitrogen Budget on the Northeast U.S. Shelf. Journal of Geophysical Research: Oceans, 2019, 124, 2969-2991.	2.6	7
88	Risk and Reward in Foraging Migrations of North Pacific Albacore Determined From Estimates of Energy Intake and Movement Costs. Frontiers in Marine Science, 2022, 9, .	2.5	7
89	Projected effects of climate change on Pseudo-nitzschia bloom dynamics in the Gulf of Maine. Journal of Marine Systems, 2022, 230, 103737.	2.1	7
90	Eastern Bering Sea shelf environmental and lower trophic level responses to climate forcing: Results of dynamical downscaling from CMIP6. Deep-Sea Research Part II: Topical Studies in Oceanography, 2021, 193, 104975.	1.4	6

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91	Ocean Ammonia Outgassing: Modulation by CO₂ and Anthropogenic Nitrogen Deposition. Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS002026.	3.8	5
92	Estuarine Forecasts at Daily Weather to Subseasonal Time Scales. Earth and Space Science, 2020, 7, e2020EA001179.	2.6	5
93	Oceanic and Atmospheric Drivers of Postâ€Elâ€NiÃ±o Chlorophyll Rebound in the Equatorial Pacific. Geophysical Research Letters, 2022, 49, .	4.0	5
94	Drivers of Phytoplankton Blooms in Hawaii: A Regional Model Study. Journal of Geophysical Research: Oceans, 2021, 126, e2020JC017069.	2.6	4
95	A northeast United States Atlantis marine ecosystem model with ocean reanalysis and ocean color forcing. Ecological Modelling, 2022, 471, 110038.	2.5	4
96	Simulated ecosystem response to volcanic iron fertilization in the subarctic <scp>P</scp>acific ocean. Fisheries Oceanography, 2015, 24, 395-413.	1.7	3
97	Changing ocean systems: A short synthesis. , 2019, , 19-34.		2
98	An updated lifeâ€history scheme for marine fishes predicts recruitment variability and sensitivity to exploitation. Global Ecology and Biogeography, 2021, 30, 870-882.	5.8	2
99	Mixed Layer Depth Promotes Trophic Amplification on a Seasonal Scale. Geophysical Research Letters, 2022, 49, .	4.0	2
100	Marine Ecosystem Changepoints Spread Under Ocean Warming in an Earth System Model. Journal of Geophysical Research G: Biogeosciences, 2022, 127, .	3.0	1
101	Mechanisms driving ESM-based marine ecosystem predictive skill on the east African coast. Environmental Research Letters, 2022, 17, 084004.	5.2	1