Nathaniel Bindoff

List of Publications by Year
in descending order

135 papers	8,039 citations	61984 43 h-index	60623 81 g-index
142 all docs	142 docs citations	142 times ranked	9693 citing authors

#	Article	IF	Citations
1	Evaluation of Climate Models. , 2014, , 741-866.		458
2	Climate change and Southern Ocean ecosystems I: how changes in physical habitats directly affect marine biota. Global Change Biology, 2014, 20, 3004-3025.	9.5	448
3	The unprecedented 2015/16 Tasman Sea marine heatwave. Nature Communications, 2017, 8, 16101.	12.8	374
4	A review of global ocean temperature observations: Implications for ocean heat content estimates and climate change. Reviews of Geophysics, 2013, 51, 450-483.	23.0	367
5	Variations in behavior and condition of a Southern Ocean top predator in relation to in situ oceanographic conditions. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 13705-13710.	7.1	291
6	Improving the Use of Species Distribution Models in Conservation Planning and Management under Climate Change. PLoS ONE, 2014, 9, e113749.	2.5	272
7	Ocean circulation off east Antarctica affects ecosystem structure and sea-ice extent. Nature, 2000, 406, 504-507.	27.8	264
8	Large-scale freshening of intermediate waters in the Pacific and Indian oceans. Nature, 1999, 400, 440-443.	27.8	245
9	Diagnosing Climate Change and Ocean Ventilation Using Hydrographic Data. Journal of Physical Oceanography, 1994, 24, 1137-1152.	1.7	229
10	Observed decreases in oxygen content of the global ocean. Geophysical Research Letters, 2011, 38, n/a-n/a.	4.0	227
11	Near-term Climate Change: Projections and Predictability. , 2014, , 953-1028.		196
12	On the circulation and water masses over the Antarctic continental slope and rise between 80 and 150Â°E. Deep-Sea Research Part II: Topical Studies in Oceanography, 2000, 47, 2299-2326.	1.4	189
13	Changes in the global hydrologicalâ€cycle inferred from ocean salinity. Geophysical Research Letters, 2010, 37, .	4.0	144
14	Detection and Attribution of Climate Change: from Global to Regional. , 2014, , 867-952.		144
15	Antarctic Futures: An Assessment of Climate-Driven Changes in Ecosystem Structure, Function, and Service Provisioning in the Southern Ocean. Annual Review of Marine Science, 2020, 12, 87-120.	11.6	140
16	State of the Climate in 2013. Bulletin of the American Meteorological Society, 2014, 95, S1-S279.	3.3	138
17	State of the Climate in 2010. Bulletin of the American Meteorological Society, 2011, 92, S1-S236.	3.3	135
18	Climate projections for ecologists. Wiley Interdisciplinary Reviews: Climate Change, 2014, 5, 621-637.	8.1	132

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19	State of the Climate in 2012. Bulletin of the American Meteorological Society, 2013, 94, S1-S258.	3.3	129
20	Decadal Changes along an Indian Ocean Section at 32Â°S and Their Interpretation. Journal of Physical Oceanography, 2000, 30, 1207-1222.	1.7	125
21	Formation and export of dense shelf water from the AdÃ©lie Depression, East Antarctica. Journal of Geophysical Research, 2008, 113, .	3.3	114
22	Freshening of the AdÃ©lie Land Bottom Water near 140Â°E. Geophysical Research Letters, 2005, 32, .	4.0	111
23	Antarctic Bottom Water from the AdÃ©lie and George V Land coast, East Antarctica (140â€“149Â°E). Journal of Geophysical Research, 2010, 115, .	3.3	98
24	Warming of the water column in the southwest Pacific Ocean. Nature, 1992, 357, 59-62.	27.8	96
25	The circulation and water masses of the Antarctic shelf and continental slope between 30 and. Deep-Sea Research Part II: Topical Studies in Oceanography, 2010, 57, 723-737.	1.4	86
26	Sensitivity of Global Upper-Ocean Heat Content Estimates to Mapping Methods, XBT Bias Corrections, and Baseline Climatologies*. Journal of Climate, 2016, 29, 4817-4842.	3.2	83
27	Modeling water mass formation in the Mertz Glacier Polynya and AdÃ©lie Depression, East Antarctica. Journal of Geophysical Research, 2004, 109, .	3.3	79
28	Climate Change Detection and Attribution: Beyond Mean Temperature Signals. Journal of Climate, 2006, 19, 5058-5077.	3.2	79
29	Strengthened Indonesian Throughflow Drives Decadal Warming in the Southern Indian Ocean. Geophysical Research Letters, 2018, 45, 6167-6175.	4.0	79
30	Climateâ€“vegetationâ€“fire interactions and feedbacks: trivial detail or major barrier to projecting the future of the Earth system?. Wiley Interdisciplinary Reviews: Climate Change, 2016, 7, 910-931.	8.1	76
31	Interannual and Decadal Temperature Variability in the Southwest Pacific Ocean between 1955 and 1988. Journal of Climate, 1997, 10, 1035-1049.	3.2	73
32	Future fire danger climatology for Tasmania, Australia, using a dynamically downscaled regional climate model. International Journal of Wildland Fire, 2014, 23, 309.	2.4	71
33	Wintertime oceanography of the AdÃ©lie Depression. Deep-Sea Research Part II: Topical Studies in Oceanography, 2003, 50, 1373-1392.	1.4	67
34	Surface oceanography of BROKE-West, along the Antarctic margin of the south-west Indian Ocean (<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si0039.gif") Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 147 Td (ov Oceanography, 2010, 57, 738-757.	1.4	67
35	Estimating the Four-Dimensional Structure of the Southern Ocean Using Satellite Altimetry. Journal of Atmospheric and Oceanic Technology, 2011, 28, 548-568.	1.3	65
36	Detection and Attribution of Observed Changes in Northern Hemisphere Spring Snow Cover. Journal of Climate, 2013, 26, 6904-6914.	3.2	65

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37	Performance of an empirical biasâ€correction of a highâ€resolution climate dataset. International Journal of Climatology, 2014, 34, 2189-2204.	3.5	63
38	South <scp>I</scp>ndian <scp>C</scp>ountercurrent and associated fronts. Journal of Geophysical Research: Oceans, 2014, 119, 6763-6791.	2.6	57
39	Sea-ice growth and water-mass modification in the Mertz Glacier polynya, East Antarctica, during winter. Annals of Glaciology, 2001, 33, 399-406.	1.4	56
40	Interdecadal water mass changes in the Southern Ocean between 30Â°E and 160Â°E. Geophysical Research Letters, 2005, 32, n/a-n/a.	4.0	56
41	Freshwater and Heat Changes in the North and South Pacific Oceans between the 1960s and 1985â€“94. Journal of Climate, 2001, 14, 1613-1633.	3.2	54
42	Primary productivity off the coast of East Antarctica (80â€“150Â°E): January to March 1996. Deep-Sea Research Part II: Topical Studies in Oceanography, 2000, 47, 2327-2362.	1.4	49
43	Impacts of Climate Change on the Subduction of Mode and Intermediate Water Masses in the Southern Ocean. Journal of Climate, 2009, 22, 3289-3302.	3.2	49
44	On the Total, Mean, and Eddy Heat and Freshwater Transports in the Southern Hemisphere of a â…›Â° Ã— â…›Â° Global Ocean Model. Journal of Physical Oceanography, 2007, 37, 277-295.	1.7	48
45	Changes in the Subduction of Southern Ocean Water Masses at the End of the Twenty-First Century in Eight IPCC Models. Journal of Climate, 2010, 23, 6526-6541.	3.2	48
46	Lessons Learned from IPCC AR4: Scientific Developments Needed to Understand, Predict, and Respond to Climate Change. Bulletin of the American Meteorological Society, 2009, 90, 497-514.	3.3	47
47	On regional dynamical downscaling for the assessment and projection of temperature and precipitation extremes across Tasmania, Australia. Climate Dynamics, 2013, 41, 3145-3165.	3.8	45
48	A Global, Multiproduct Analysis of Coastal Marine Heatwaves: Distribution, Characteristics, and Longâ€Term Trends. Journal of Geophysical Research: Oceans, 2021, 126, e2020JC016708.	2.6	45
49	Dynamics of the Leeuwin Current: Part 1. Coastal flows in an inviscid, variable-density, layer model. Dynamics of Atmospheres and Oceans, 2013, 63, 24-59.	1.8	42
50	New Perspectives on Observed and Simulated Antarctic Sea Ice Extent Trends Using Optimal Fingerprinting Techniques*. Journal of Climate, 2015, 28, 1543-1560.	3.2	42
51	The sea ice dynamics of Terra Nova Bay and Ross Ice Shelf Polynyas during a spring and winter simulation. Journal of Geophysical Research, 2008, 113, .	3.3	41
52	Salinity dominance on the Indian Ocean Eastern Gyral current. Geophysical Research Letters, 2013, 40, 5716-5721.	4.0	40
53	Mixing Variability in the Southern Ocean. Journal of Physical Oceanography, 2015, 45, 966-987.	1.7	39
54	The simulation of cutoff lows in a regional climate model: reliability and future trends. Climate Dynamics, 2012, 39, 445-459.	3.8	38

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55	On the zonal and meridional circulation and ocean transports between Tasmania and Antarctica. Journal of Geophysical Research, 2001, 106, 2795-2814.	3.3	37
56	Ocean-Ice Shelf Interaction and Possible Bottom Water Formation in Prydz Bay, Antarctica. Antarctic Research Series, 0, , 173-187.	0.2	37
57	Detecting an external influence on recent changes in oceanic oxygen using an optimal fingerprinting method. Biogeosciences, 2013, 10, 1799-1813.	3.3	36
58	Performance of downscaled regional climate simulations using a variableâ€resolution regional climate model: Tasmania as a test case. Journal of Geophysical Research D: Atmospheres, 2013, 118, 11,936.	3.3	35
59	On the Leeuwin Current System and Its Linkage to Zonal Flows in the South Indian Ocean as Inferred from a Gridded Hydrography. Journal of Physical Oceanography, 2017, 47, 583-602.	1.7	35
60	Anthropogenic and Natural Influences on Record 2016 Marine Heat waves. Bulletin of the American Meteorological Society, 2018, 99, S44-S48.	3.3	35
61	Comparison of Observed Temperature and Salinity Changes in the Indo-Pacific with Results from the Coupled Climate Model HadCM3: Processes and Mechanisms*. Journal of Climate, 2003, 16, 156-166.	3.2	34
62	Frontal movements and property fluxes: Contributions to heat and freshwater trends in the Southern Ocean. Journal of Geophysical Research, 2011, 116, .	3.3	33
63	Recent hemispheric asymmetry in global ocean warming induced by climate change and internal variability. Nature Communications, 2020, 11, 2008.	12.8	33
64	Abyssal currents during the formation and passage of a warm-core ring in the East Australian Current. Deep-sea Research Part A, Oceanographic Research Papers, 1986, 33, 1563-1576.	1.5	30
65	Antarctic coastal polynya response to climate change. Journal of Geophysical Research, 2007, 112, .	3.3	30
66	High-resolution projections of surface water availability for Tasmania, Australia. Hydrology and Earth System Sciences, 2012, 16, 1287-1303.	4.9	30
67	OCEAN SCIENCE: Warming the World's Oceans. Science, 2005, 309, 254-255.	12.6	29
68	Changes to the drivers of fire weather with a warming climate â€“ a case study of southeast Tasmania. Climatic Change, 2014, 124, 255-269.	3.6	29
69	On the nonequivalent barotropic structure of the <scp>A</scp>ntarctic <scp>C</scp>ircumpolar <scp>C</scp>urrent: An observational perspective. Journal of Geophysical Research: Oceans, 2014, 119, 5221-5243.	2.6	29
70	Simulating the Role of Surface Forcing on Observed Multidecadal Upper-Ocean Salinity Changes. Journal of Climate, 2016, 29, 5575-5588.	3.2	28
71	Dynamics of the Leeuwin Current: Part 2. Impacts of mixing, friction, and advection on a buoyancy-driven eastern boundary current over a shelf. Dynamics of Atmospheres and Oceans, 2014, 65, 39-63.	1.8	27
72	Barotropic flow of a warmâ€core ring from seafloor electric measurements. Journal of Geophysical Research, 1986, 91, 12979-12984.	3.3	26

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73	Winter ocean/sea ice interactions studied in the East Antarctic. Eos, 1996, 77, 453.	0.1	26
74	Antarctic Circumpolar Current transport and barotropic transition at Macquarie Ridge. Geophysical Research Letters, 2014, 41, 7254-7261.	4.0	26
75	The Tasman Project of Seafloor Magnetotelluric Exploration: experiment and observations. Physics of the Earth and Planetary Interiors, 1989, 53, 405-421.	1.9	23
76	Seasonal Temperature Variability in the Upper Southwest Pacific Ocean. Journal of Physical Oceanography, 1999, 29, 366-381.	1.7	23
77	Mitochondria and the heart. European Heart Journal, 2003, 24, 221-224.	2.2	23
78	A seafloor magnetotelluric sounding in the Tasman Sea. Geophysical Research Letters, 1985, 12, 545-548.	4.0	22
79	Wintertime heat flux to the underside of East Antarctic pack ice. Journal of Geophysical Research, 2000, 105, 28759-28769.	3.3	22
80	To Be Or Not to Be? Variable selection can change the projected fate of a threatened species under future climate. Ecological Management and Restoration, 2013, 14, 230-234.	1.5	21
81	Vertical electric field fluctuations at the floor of the Tasman Abyssal Plain. Deep-sea Research Part A, Oceanographic Research Papers, 1986, 33, 587-600.	1.5	19
82	An anomalous late-season change in the regional sea ice regime in the vicinity of the Mertz Glacier Polynya, East Antarctica. Journal of Geophysical Research, 2003, 108, .	3.3	19
83	Interannual variability of the South Indian Countercurrent. Journal of Geophysical Research: Oceans, 2016, 121, 3465-3487.	2.6	19
84	The Tamar conductivity anomaly. Physics of the Earth and Planetary Interiors, 1988, 52, 8-22.	1.9	18
85	Comparison of Synoptic and Climatologically Mapped Sections in the South Pacific Ocean. Journal of Climate, 1992, 5, 631-645.	3.2	18
86	The Tasman project of seafloor magnetotelluric exploration. Exploration Geophysics, 1985, 16, 221-224.	1.1	17
87	A regional response in mean westerly circulation and rainfall to projected climate warming over Tasmania, Australia. Climate Dynamics, 2013, 40, 2035-2048.	3.8	16
88	Deep ocean freshening. Nature Climate Change, 2013, 3, 864-865.	18.8	13
89	Detecting and Characterizing Ekman Currents in the Southern Ocean. Journal of Physical Oceanography, 2015, 45, 1205-1223.	1.7	13
90	Marine nitrogen fixers mediate a low latitude pathway for atmospheric CO2 drawdown. Nature Communications, 2019, 10, 4611.	12.8	13

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91	Southern Australia Current System based on a gridded hydrography and a high-resolution model. Progress in Oceanography, 2020, 181, 102254.	3.2	13
92	Interactions between Antarctic sea ice and large-scale atmospheric modes in CMIP5 models. Cryosphere, 2017, 11, 789-803.	3.9	12
93	Reduced oxygenation at intermediate depths of the southwest Pacific during the last glacial maximum. Earth and Planetary Science Letters, 2018, 491, 48-57.	4.4	12
94	Ocean Climate Observing Requirements in Support of Climate Research and Climate Information. Frontiers in Marine Science, 2019, 6, .	2.5	12
95	Slower Longâ€Term Coastal Warming Drives Dampened Trends in Coastal Marine Heatwave Exposure. Journal of Geophysical Research: Oceans, 2021, 126, e2021JC017930.	2.6	12
96	Drivers of Antarctic Sea Ice Volume Change in CMIP5 Models. Journal of Geophysical Research: Oceans, 2018, 123, 7914-7938.	2.6	11
97	Atlanticâ€“Pacific asymmetry of subsurface temperature change and frontal response of the Antarctic Circumpolar Current for the recent three decades. Journal of Oceanography, 2015, 71, 623-636.	1.7	10
98	Dynamic Biological Functioning Important for Simulating and Stabilizing Ocean Biogeochemistry. Global Biogeochemical Cycles, 2018, 32, 565-593.	4.9	10
99	Noahâ€™s Ark Conservation Will Not Preserve Threatened Ecological Communities under Climate Change. PLoS ONE, 2015, 10, e0124014.	2.5	10
100	A separation of ionospheric and oceanic tidal components in magnetic fluctuation data.. Journal of Geomagnetism and Geoelectricity, 1988, 40, 1445-1467.	0.9	10
101	A Statistically Efficient Mapping Technique for Four-Dimensional Ocean Temperature Data. Journal of Atmospheric and Oceanic Technology, 2000, 17, 831-846.	1.3	9
102	Ocean carbon and nitrogen isotopes in CSIRO Mk3L-COAL version 1.0: a tool for palaeoceanographic research. Geoscientific Model Development, 2019, 12, 1491-1523.	3.6	9
103	Near-Surface Salinity Reveals the Oceanic Sources of Moisture for Australian Precipitation through Atmospheric Moisture Transport. Journal of Climate, 2020, 33, 6707-6730.	3.2	8
104	Anthropogenic Temperature and Salinity Changes in the Southern Ocean. Journal of Climate, 2021, 34, 215-228.	3.2	8
105	Comparisons between surface, barotropic and abyssal flows during the passage of a warm-core ring. Marine and Freshwater Research, 1988, 39, 697.	1.3	8
106	Chapter 7.3 The world during WOCE. International Geophysics, 2001, 77, 557-583.	0.6	7
107	Pressure fluctuations on the open-ocean floor: Mid-Tasman Sea at 38Â°30â€²S., 162Â°38â€²E., near the Lord Howe rise. Marine and Freshwater Research, 1986, 37, 27.	1.3	7
108	Local Drivers of Extreme Upper Ocean Marine Heatwaves Assessed Using a Global Ocean Circulation Model. Frontiers in Climate, 2022, 4, .	2.8	7

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109	Unusual suspects in the usual places: a phylo-climatic framework to identify potential future invasive species. Biological Invasions, 2017, 19, 577-596.	2.4	6
110	Exploring the Future of Fuel Loads in Tasmania, Australia: Shifts in Vegetation in Response to Changing Fire Weather, Productivity, and Fire Frequency. Forests, 2018, 9, 210.	2.1	6
111	Seasonal Evolution of the Surface Layer Heat Balance in the Eastern Subtropical Indian Ocean. Journal of Geophysical Research: Oceans, 2019, 124, 6459-6477.	2.6	6
112	Subpolar Southern Ocean Response to Changes in the Surface Momentum, Heat, and Freshwater Fluxes under 2xCO2. Journal of Climate, 2021, 34, 8755-8775.	3.2	6
113	Pole relocation for an orthogonal grid: An analytic method. Ocean Modelling, 2006, 12, 16-31.	2.4	5
114	Antarctic Verification of the Australian Numerical Weather Prediction Model. Weather and Forecasting, 2019, 34, 1081-1096.	1.4	5
115	Improving Australian Rainfall Prediction Using Sea Surface Salinity. Journal of Climate, 2021, 34, 2473-2490.	3.2	5
116	Modeling Decadal Changes on the Indian Ocean Section I5 at 32Â°S. Journal of Climate, 2007, 20, 3106-3130.	3.2	4
117	Improved regional climate modelling through dynamical downscaling. IOP Conference Series: Earth and Environmental Science, 2010, 11, 012026.	0.3	2
118	Observational estimates of turbulent mixing in the southeast Indian Ocean. Journal of Physical Oceanography, 2021, , .	1.7	2
119	Dynamics of a Standing Meander of the Subantarctic Front Diagnosed from Satellite Altimetry and Along-Stream Anomalies of Temperature and Salinity. Journal of Physical Oceanography, 2022, 52, 1073-1089.	1.7	2
120	Data on bottom water in Prydz Bay, Antarctica, revised. Eos, 2003, 84, 200.	0.1	1
121	Recent investigations of the Mertz Polynya and George Vth Land continental margin, East Antarctica. Deep-Sea Research Part II: Topical Studies in Oceanography, 2003, 50, 1335-1336.	1.4	1
122	The Impacts of the Oceans on Climate Change. , 2008, , .		1
123	Capabilities of Global Ocean Programmes to Inform Climate Services. Procedia Environmental Sciences, 2010, 1, 342-353.	1.4	1
124	Sea-ice-driven shallow overturning. Nature Geoscience, 2016, 9, 569-570.	12.9	1
125	Intergovernmental Panel for Climate Change (IPCC) and Attribution and Prediction of Climate: Progress since the Fourth Assessment. , 2010, , .		1
126	Summary for Policymakers. , 2014, , 45-64.		1

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127	Technical Summary. , 0, , 27-158.		0
128	Oceanographic effects on the geomagnetic field. Exploration Geophysics, 1986, 17, 30-30.	1.1	0
129	Climate with care. New Scientist, 2007, 193, 27.	0.0	0
130	Assessing rainfall trends and remote drivers in regional climate change projections: The demanding test case of Tasmania. IOP Conference Series: Earth and Environmental Science, 2010, 11, 012038.	0.3	0
131	Warming and freshening trends. Nature Geoscience, 2018, 11, 803-804.	12.9	0
132	Atlanticâ€“Pacific asymmetry of subsurface temperature change and frontal response of the Antarctic Circumpolar Current for the recent three decades. , 2016, , 157-170.		0
133	Characteristics of Wind-Generated Near-Inertial Waves in the Southeast Indian Ocean. Journal of Physical Oceanography, 2022, 52, 557-578.	1.7	0
134	An Intercomparison of Antarctic NWP during the Austral Summer Special Observing Period for the Year of Polar Prediction. Weather and Forecasting, 2022, , .	1.4	0
135	Turbulent mixing variability in an energetic standing meander of the Southern Ocean. Journal of Physical Oceanography, 2022, , .	1.7	0