Cecilia Bitz

List of Publications by Year in descending order

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#	Article	IF	CITATIONS
1	A cyclone-centered perspective on the drivers of asymmetric patterns in the atmosphere and sea ice during Arctic cyclones. Journal of Climate, 2022, , 1-47.	3.2	14
2	Probabilistic Forecasts of Arctic Sea Ice Thickness. Journal of Agricultural, Biological, and Environmental Statistics, 2022, 27, 280-302.	1.4	4
3	Understanding the Forecast Skill of Rapid Arctic Sea Ice Loss on Subseasonal Time Scales. Journal of Climate, 2022, 35, 1179-1196.	3.2	2
4	Seasonality in Arctic Warming Driven by Sea Ice Effective Heat Capacity. Journal of Climate, 2022, 35, 1629-1642.	3.2	16
5	Asymmetry in the seasonal cycle of Antarctic sea ice driven by insolation. Nature Geoscience, 2022, 15, 277-281.	12.9	8
6	Estimating parameters in a sea ice model using an ensemble Kalman filter. Cryosphere, 2021, 15, 1277-1284.	3.9	0
7	A floe size dependent scattering model in two- and three-dimensions for wave attenuation by ice floes. Ocean Modelling, 2021, 161, 101779.	2.4	15
8	Robust Interâ€Hemispheric Asymmetry in the Response to Symmetric Volcanic Forcing in Model Large Ensembles. Geophysical Research Letters, 2021, 48, e2021GL092558.	4.0	8
9	Probabilistic forecasting of the Arctic sea ice edge with contour modeling. Annals of Applied Statistics, 2021, 15, .	1.1	5
10	Highâ€Frequency Sea Ice Variability in Observations and Models. Geophysical Research Letters, 2021, 48, e2020GL092356.	4.0	5
11	Contributions to Polar Amplification in CMIP5 and CMIP6 Models. Frontiers in Earth Science, 2021, 9, .	1.8	55
12	Tropical teleconnection impacts on Antarctic climate changes. Nature Reviews Earth & Environment, 2021, 2, 680-698.	29.7	85
13	Arctic Sea Ice Response to Flooding of the Snow Layer in Future Warming Scenarios. Earth's Future, 2021, 9, e2021EF002136.	6.3	2
14	The influence of ENSO on Arctic sea ice in large ensembles and observations. Journal of Climate, 2021, , 1-50.	3.2	8
15	Fasting season length sets temporal limits for global polar bear persistence. Nature Climate Change, 2020, 10, 732-738.	18.8	68
16	Sea-ice-free Arctic during the Last Interglacial supports fast future loss. Nature Climate Change, 2020, 10, 928-932.	18.8	71
17	Antarctic Elevation Drives Hemispheric Asymmetry in Polar Lapse Rate Climatology and Feedback. Geophysical Research Letters, 2020, 47, e2020GL088965.	4.0	16
18	Strong remote control of future equatorial warming by off-equatorial forcing. Nature Climate Change, 2020, 10, 124-129.	18.8	32

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19	Antarctic Sea Ice Area in CMIP6. Geophysical Research Letters, 2020, 47, e2019GL086729.	4.0	129
20	Pollen calendars and maps of allergenic pollen in North America. Aerobiologia, 2019, 35, 613-633.	1.7	55
21	A Yearâ€Round Subseasonalâ€ŧo‣easonal Sea Ice Prediction Portal. Geophysical Research Letters, 2019, 46, 3298-3307.	4.0	28
22	100 Years of Earth System Model Development. Meteorological Monographs, 2019, 59, 12.1-12.66.	5.0	48
23	Energy Budgets for Terrestrial Extrasolar Planets. Astrophysical Journal Letters, 2019, 884, L2.	8.3	5
24	Estimating the sea ice floe size distribution using satellite altimetry: theory, climatology, and model comparison. Cryosphere, 2019, 13, 2869-2885.	3.9	23
25	Advances in Modeling Interactions Between Sea Ice and Ocean Surface Waves. Journal of Advances in Modeling Earth Systems, 2019, 11, 4167-4181.	3.8	45
26	Sustained ocean changes contributed to sudden Antarctic sea ice retreat in late 2016. Nature Communications, 2019, 10, 14.	12.8	179
27	Effects of Ensemble Configuration on Estimates of Regional Climate Uncertainties. Geophysical Research Letters, 2018, 45, 926-934.	4.0	4
28	Metrics for the Evaluation of the Southern Ocean in Coupled Climate Models and Earth System Models. Journal of Geophysical Research: Oceans, 2018, 123, 3120-3143.	2.6	29
29	Sources of Intermodel Spread in the Lapse Rate and Water Vapor Feedbacks. Journal of Climate, 2018, 31, 3187-3206.	3.2	35
30	Reconstruction of Snow on Arctic Sea Ice. Journal of Geophysical Research: Oceans, 2018, 123, 3588-3602.	2.6	33
31	Polar amplification dominated by local forcing and feedbacks. Nature Climate Change, 2018, 8, 1076-1081.	18.8	216
32	Processes Controlling Arctic and Antarctic Sea Ice Predictability in the Community Earth System Model. Journal of Climate, 2018, 31, 9771-9786.	3.2	18
33	Exo-Milankovitch Cycles. II. Climates of G-dwarf Planets in Dynamically Hot Systems. Astronomical Journal, 2018, 155, 266.	4.7	29
34	Tropical Decadal Variability and the Rate of Arctic Sea Ice Decrease. Geophysical Research Letters, 2018, 45, 11,326.	4.0	51
35	Radiative Feedbacks From Stochastic Variability in Surface Temperature and Radiative Imbalance. Geophysical Research Letters, 2018, 45, 5082-5094.	4.0	21
36	Insights on Sea Ice Data Assimilation from Perfect Model Observing System Simulation Experiments. Journal of Climate, 2018, 31, 5911-5926.	3.2	23

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37	An Emergent Sea Ice Floe Size Distribution in a Global Coupled Oceanâ€5ea Ice Model. Journal of Geophysical Research: Oceans, 2018, 123, 4322-4337.	2.6	84
38	Distinct Mechanisms of Ocean Heat Transport Into the Arctic Under Internal Variability and Climate Change. Geophysical Research Letters, 2018, 45, 7692-7700.	4.0	32
39	Global atmospheric teleconnections during Dansgaard–Oeschger events. Nature Geoscience, 2017, 10, 36-40.	12.9	108
40	Timeâ€Dependent Freshwater Input From Ice Shelves: Impacts on Antarctic Sea Ice and the Southern Ocean in an Earth System Model. Geophysical Research Letters, 2017, 44, 10,454.	4.0	40
41	Conditions leading to the unprecedented low Antarctic sea ice extent during the 2016 austral spring season. Geophysical Research Letters, 2017, 44, 9008-9019.	4.0	126
42	Improved Sea Ice Forecasting through Spatiotemporal Bias Correction. Journal of Climate, 2017, 30, 9493-9510.	3.2	15
43	A Source–Receptor Perspective on the Polar Hydrologic Cycle: Sources, Seasonality, and Arctic–Antarctic Parity in the Hydrologic Cycle Response to CO ₂ Doubling. Journal of Climate, 2017, 30, 9999-10017.	3.2	26
44	Remarkable separability of circulation response to Arctic sea ice loss and greenhouse gas forcing. Geophysical Research Letters, 2017, 44, 7955-7964.	4.0	63
45	Multi-model seasonal forecast of Arctic sea-ice: forecast uncertainty at pan-Arctic and regional scales. Climate Dynamics, 2017, 49, 1399-1410.	3.8	41
46	lce Caps and Ice Belts: The Effects of Obliquity on Iceâ^'Albedo Feedback. Astrophysical Journal, 2017, 846, 28.	4.5	53
47	The Abisko Polar Prediction School. Bulletin of the American Meteorological Society, 2017, 98, 445-447.	3.3	2
48	Modeling climatic effects of carbon dioxide emissions from Deccan Traps volcanic eruptions around the Cretaceous–Paleogene boundary. Palaeogeography, Palaeoclimatology, Palaeoecology, 2017, 478, 139-148.	2.3	29
49	The Effect of Orbital Configuration on the Possible Climates and Habitability of Kepler-62f. Astrobiology, 2016, 16, 443-464.	3.0	56
50	Antarctic sea-ice expansion between 2000 and 2014 driven by tropical Pacific decadal climateÂvariability. Nature Geoscience, 2016, 9, 590-595.	12.9	218
51	A mathematical framework for analysis of water tracers: Part 1: Development of theory and application to the preindustrial mean state. Journal of Advances in Modeling Earth Systems, 2016, 8, 991-1013.	3.8	27
52	Global Climate Impacts of Fixing the Southern Ocean Shortwave Radiation Bias in the Community Earth System Model (CESM). Journal of Climate, 2016, 29, 4617-4636.	3.2	224
53	The Global Climate Response to Lowering Surface Orography of Antarctica and the Importance of Atmosphere–Ocean Coupling. Journal of Climate, 2016, 29, 4137-4153.	3.2	21
54	A Mathematical Framework for Analysis of Water Tracers. Part II: Understanding Large-Scale Perturbations in the Hydrological Cycle due to CO2 Doubling. Journal of Climate, 2016, 29, 6765-6782.	3.2	20

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55	Diagnostic sea ice predictability in the panâ€Arctic and U.S. Arctic regional seas. Geophysical Research Letters, 2016, 43, 11,688.	4.0	13
56	Greater aerial moisture transport distances with warming amplify interbasin salinity contrasts. Geophysical Research Letters, 2016, 43, 8677-8684.	4.0	17
57	The spatial extent and dynamics of the Antarctic Cold Reversal. Nature Geoscience, 2016, 9, 51-55.	12.9	118
58	The Response of the Southern Ocean and Antarctic Sea Ice to Freshwater from Ice Shelves in an Earth System Model. Journal of Climate, 2016, 29, 1655-1672.	3.2	87
59	Southern Ocean Deep Circulation and Heat Uptake in a High-Resolution Climate Model. Journal of Climate, 2016, 29, 2597-2619.	3.2	47
60	Polar Lower-Latitude Linkages and Their Role in Weather and Climate Prediction. Bulletin of the American Meteorological Society, 2015, 96, ES197-ES200.	3.3	21
61	Inability of stratospheric sulfate aerosol injections to preserve the West Antarctic Ice Sheet. Geophysical Research Letters, 2015, 42, 4989-4997.	4.0	35
62	Snow cover on Arctic sea ice in observations and an Earth System Model. Geophysical Research Letters, 2015, 42, 10,342.	4.0	25
63	Model forecast skill and sensitivity to initial conditions in the seasonal Sea Ice Outlook. Geophysical Research Letters, 2015, 42, 8042-8048.	4.0	54
64	Antarctic Ocean and Sea Ice Response to Ozone Depletion: A Two-Time-Scale Problem. Journal of Climate, 2015, 28, 1206-1226.	3.2	179
65	Sea Ice Enhancements to Polar WRF*. Monthly Weather Review, 2015, 143, 2363-2385.	1.4	69
66	The ocean's role in polar climate change: asymmetric Arctic and Antarctic responses to greenhouse gas and ozone forcing. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2014, 372, 20130040.	3.4	114
67	A Heuristic Model of Dansgaard–Oeschger Cycles. Part I: Description, Results, and Sensitivity Studies. Journal of Climate, 2014, 27, 4337-4358.	3.2	13
68	Biases in modeled surface snow BC mixing ratios in prescribed-aerosol climate model runs. Atmospheric Chemistry and Physics, 2014, 14, 11697-11709.	4.9	7
69	Rapid and extensive warming following cessation of solar radiation management. Environmental Research Letters, 2014, 9, 024005.	5.2	30
70	SPECTRUM-DRIVEN PLANETARY DEGLACIATION DUE TO INCREASES IN STELLAR LUMINOSITY. Astrophysical Journal Letters, 2014, 785, L9.	8.3	72
71	Characteristics of Arctic Sea-Ice Thickness Variability in GCMs. Journal of Climate, 2014, 27, 8244-8258.	3.2	51
72	Predicting September sea ice: Ensemble skill of the SEARCH Sea Ice Outlook 2008-2013. Geophysical Research Letters, 2014, 41, 2411-2418.	4.0	154

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73	Offsetting effects of aerosols on Arctic and global climate in the late 20th century. Atmospheric Chemistry and Physics, 2014, 14, 3969-3975.	4.9	36
74	Time-Varying Climate Sensitivity from Regional Feedbacks. Journal of Climate, 2013, 26, 4518-4534.	3.2	291
75	The Effect of Host Star Spectral Energy Distribution and Ice-Albedo Feedback on the Climate of Extrasolar Planets. Astrobiology, 2013, 13, 715-739.	3.0	134
76	Ecological Consequences of Sea-Ice Decline. Science, 2013, 341, 519-524.	12.6	461
77	High-Latitude Ocean and Sea Ice Surface Fluxes: Challenges for Climate Research. Bulletin of the American Meteorological Society, 2013, 94, 403-423.	3.3	137
78	What is the Trajectory of Arctic Sea Ice?. Geophysical Monograph Series, 2013, , 175-185.	0.1	2
79	Two modes of seaâ€ice gravity drainage: A parameterization for largeâ€scale modeling. Journal of Geophysical Research: Oceans, 2013, 118, 2279-2294.	2.6	82
80	Sensitivity of Arctic Sea Ice Thickness to Intermodel Variations in the Surface Energy Budget. Geophysical Monograph Series, 2013, , 77-90.	0.1	2
81	Arctic Sea Ice Decline: Introduction. Geophysical Monograph Series, 2013, , 1-5.	0.1	1
82	The Influence of Local Feedbacks and Northward Heat Transport on the Equilibrium Arctic Climate Response to Increased Greenhouse Gas Forcing. Journal of Climate, 2012, 25, 5433-5450.	3.2	133
83	Late-Twentieth-Century Simulation of Arctic Sea Ice and Ocean Properties in the CCSM4. Journal of Climate, 2012, 25, 1431-1452.	3.2	99
84	Climate Sensitivity of the Community Climate System Model, Version 4. Journal of Climate, 2012, 25, 3053-3070.	3.2	190
85	Constraining projections of summer Arctic sea ice. Cryosphere, 2012, 6, 1383-1394.	3.9	239
86	Arctic climate response to forcing from light-absorbing particles in snow and sea ice in CESM. Atmospheric Chemistry and Physics, 2012, 12, 7903-7920.	4.9	37
87	Projected decline in spring snow depth on Arctic sea ice caused by progressively later autumn open ocean freezeâ€up this century. Geophysical Research Letters, 2012, 39, .	4.0	85
88	Impact of ocean model resolution on CCSM climate simulations. Climate Dynamics, 2012, 39, 1303-1328.	3.8	181
89	Antarctic climate response to stratospheric ozone depletion in a fine resolution ocean climate model. Geophysical Research Letters, 2012, 39, .	4.0	112
90	Cryosphere, Modeling of. , 2012, , 31-62.		0

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91	The Climate Response to Stratospheric Sulfate Injections and Implications for Addressing Climate Emergencies. Journal of Climate, 2012, 25, 3096-3116.	3.2	31
92	Global Climate Models and 20th and 21st Century Arctic Climate Change. Atmospheric and Oceanographic Sciences Library, 2012, , 405-436.	0.1	13
93	The reversibility of sea ice loss in a state-of-the-art climate model. Geophysical Research Letters, 2011, 38, n/a-n/a.	4.0	75
94	Influence of initial conditions and climate forcing on predicting Arctic sea ice. Geophysical Research Letters, 2011, 38, n/a-n/a.	4.0	105
95	Modeled methanesulfonic acid (MSA) deposition in Antarctica and its relationship to sea ice. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	26
96	Persistence and Inherent Predictability of Arctic Sea Ice in a GCM Ensemble and Observations. Journal of Climate, 2011, 24, 231-250.	3.2	218
97	Chinese stalagmite δ18O controlled by changes in the Indian monsoon during a simulated Heinrich event. Nature Geoscience, 2011, 4, 474-480.	12.9	505
98	Controls on Arctic Sea Ice from First-Year and Multiyear Ice Survivability. Journal of Climate, 2011, 24, 2378-2390.	3.2	9
99	The Effect of the Sea Ice Freshwater Flux on Southern Ocean Temperatures in CCSM3: Deep-Ocean Warming and Delayed Surface Warming. Journal of Climate, 2011, 24, 2224-2237.	3.2	43
100	Consistent Changes in the Sea Ice Seasonal Cycle in Response to Global Warming. Journal of Climate, 2011, 24, 5325-5335.	3.2	38
101	Greenhouse gas mitigation can reduce sea-ice loss and increase polar bear persistence. Nature, 2010, 468, 955-958.	27.8	151
102	Can North Atlantic Sea Ice Anomalies Account for Dansgaard–Oeschger Climate Signals?*. Journal of Climate, 2010, 23, 5457-5475.	3.2	121
103	Rain driven by receding ice sheets as a cause of past climate change. Paleoceanography, 2009, 24, .	3.0	47
104	Age characteristics in a multidecadal Arctic sea ice simulation. Journal of Geophysical Research, 2009, 114, .	3.3	28
105	Rain on Snow: Little Understood Killer in the North. Eos, 2009, 90, 221-222.	0.1	34
106	Soil Thermal and Ecological Impacts of Rain on Snow Events in the Circumpolar Arctic. Journal of Climate, 2009, 22, 2302-2315.	3.2	126
107	Increased variability of the Arctic summer ice extent in a warmer climate. Geophysical Research Letters, 2009, 36, .	4.0	80
108	Arctic warming aloft is data set dependent. Nature, 2008, 455, E3-E4.	27.8	33

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109	Fast teleconnections to the tropical Atlantic sector from Atlantic thermohaline adjustment. Geophysical Research Letters, 2008, 35, .	4.0	91
110	Adjustment of the global climate to an abrupt slowdown of the Atlantic meridional overturning circulation. Geophysical Monograph Series, 2007, , 295-313.	0.1	39
111	Rates of thermohaline recovery from freshwater pulses in modern, Last Glacial Maximum, and greenhouse warming climates. Geophysical Research Letters, 2007, 34, .	4.0	45
112	Summer landfast sea ice desalination at Point Barrow, Alaska: Modeling and observations. Journal of Geophysical Research, 2007, 112, .	3.3	56
113	Antarctic temperatures over the past two centuries from ice cores. Geophysical Research Letters, 2006, 33, .	4.0	88
114	Modeling the salinity profile of undeformed Arctic sea ice. Geophysical Research Letters, 2006, 33, .	4.0	31
115	CCSM–CAM3 Climate Simulation Sensitivity to Changes in Horizontal Resolution. Journal of Climate, 2006, 19, 2267-2289.	3.2	105
116	Future abrupt reductions in the summer Arctic sea ice. Geophysical Research Letters, 2006, 33, .	4.0	544
117	The Influence of Sea Ice on Ocean Heat Uptake in Response to Increasing CO2. Journal of Climate, 2006, 19, 2437-2450.	3.2	117
118	Atmospheric Circulation and Its Effect on Arctic Sea Ice in CCSM3 Simulations at Medium and High Resolution*. Journal of Climate, 2006, 19, 2415-2436.	3.2	69
119	Influence of the Sea Ice Thickness Distribution on Polar Climate in CCSM3. Journal of Climate, 2006, 19, 2398-2414.	3.2	168
120	The Formulation and Atmospheric Simulation of the Community Atmosphere Model Version 3 (CAM3). Journal of Climate, 2006, 19, 2144-2161.	3.2	895
121	The Community Climate System Model Version 3 (CCSM3). Journal of Climate, 2006, 19, 2122-2143.	3.2	2,075
122	Maintenance of the Sea-Ice Edge. Journal of Climate, 2005, 18, 2903-2921.	3.2	120
123	Mechanisms Forcing an Antarctic Dipole in Simulated Sea Ice and Surface Ocean Conditions. Journal of Climate, 2005, 18, 2052-2066.	3.2	36
124	Influence of high latitude ice cover on the marine Intertropical Convergence Zone. Climate Dynamics, 2005, 25, 477-496.	3.8	687
125	On the sensitivity of undeformed Arctic sea ice to its vertical salinity profile. Geophysical Research Letters, 2005, 32, .	4.0	29
126	Ice–ocean boundary conditions for coupled models. Ocean Modelling, 2004, 7, 59-74.	2.4	59

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127	A Mechanism for the High Rate of Sea Ice Thinning in the Arctic Ocean. Journal of Climate, 2004, 17, 3623-3632.	3.2	140
128	Polar amplification of climate change in coupled models. Climate Dynamics, 2003, 21, 221-232.	3.8	1,002
129	Sea Ice Response to Wind Forcing from AMIP Models. Journal of Climate, 2002, 15, 522-536.	3.2	54
130	Dynamics of Recent Climate Change in the Arctic. Science, 2002, 297, 1497-1502.	12.6	327
131	Parameterization Improvements in an Eddy-Permitting Ocean Model for Climate. Journal of Climate, 2002, 15, 1447-1459.	3.2	14
132	The influence of sea ice physics on simulations of climate change. Journal of Geophysical Research, 2001, 106, 19639-19655.	3.3	35
133	The UVic earth system climate model: Model description, climatology, and applications to past, present and future climates. Atmosphere - Ocean, 2001, 39, 361-428.	1.6	604
134	The Role of Ice–Ocean Interactions in the Variability of the North Atlantic Thermohaline Circulation. Journal of Climate, 2001, 14, 656-675.	3.2	140
135	Simulating the ice-thickness distribution in a coupled climate model. Journal of Geophysical Research, 2001, 106, 2441-2463.	3.3	273
136	Interhemispheric Effects of Interannual and Decadal ENSO-Like Climate Variations on the Americas. , 2001, , 1-16.		59
137	Interannual to Decadal Variability in Climate and the Glacier Mass Balance in Washington, Western Canada, and Alaska*. Journal of Climate, 1999, 12, 3181-3196.	3.2	149
138	An energy-conserving thermodynamic model of sea ice. Journal of Geophysical Research, 1999, 104, 15669-15677.	3.3	414
139	THERMOHALINE CIRCULATION: High-Latitude Phenomena and the Difference Between the Pacific and Atlantic. Annual Review of Earth and Planetary Sciences, 1999, 27, 231-285.	11.0	110
140	Do General Circulation Models Underestimate the Natural Variability in the Arctic Climate?. Journal of Climate, 1997, 10, 1909-1920.	3.2	29
141	Low-Frequency Variability in the Arctic Atmosphere, Sea Ice, and Upper-Ocean Climate System. Journal of Climate, 1996, 9, 394-408.	3.2	71
142	The University of Washington polarized ion source. Review of Scientific Instruments, 1990, 61, 445-447.	1.3	1
143	Recent Trends in Arctic Sea Ice and the Evolving Role of Atmospheric Circulation Forcing, 1979-2007. Geophysical Monograph Series, 0, , 7-26.	0.1	16
144	Arctic Cloud Properties and Radiative Forcing from Observations and their Role in Sea Ice Decline Predicted by the NCAR CCSM3 Model During the 21st Century. Geophysical Monograph Series, 0, , 47-62.	0.1	8

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145	Analysis of Arctic Sea Ice Anomalies in a Coupled Model Control Simulation. Geophysical Monograph Series, 0, , 187-211.	0.1	2
146	Some Aspects of Uncertainty in Predicting Sea Ice Thinning. Geophysical Monograph Series, 0, , 63-76.	0.1	19
147	Multiple Equilibria and Abrupt Transitions in Arctic Summer Sea Ice Extent. Geophysical Monograph Series, 0, , 151-174.	0.1	14
148	The Atmospheric Response to Realistic Reduced Summer Arctic Sea Ice Anomalies. Geophysical Monograph Series, 0, , 91-110.	0.1	26
149	The Role of Natural Versus Forced Change in Future Rapid Summer Arctic Ice Loss. Geophysical Monograph Series, 0, , 133-150.	0.1	34
150	A Bayesian Network Modeling Approach to Forecasting the 21st Century Worldwide Status of Polar Bears. Geophysical Monograph Series, 0, , 213-268.	0.1	83
151	Sea Ice-Albedo Feedback and Nonlinear Arctic Climate Change. Geophysical Monograph Series, 0, , 111-131.	0.1	32