Benjamin Jones

List of Publications by Year
in descending order

120	5,005	81900	110387
papers	citations	39 h-index	64 g-index

146	146	146	4438
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Increase in the rate and uniformity of coastline erosion in Arctic Alaska. Geophysical Research Letters, 2009, 36, .	4.0	252
2	Modern thermokarst lake dynamics in the continuous permafrost zone, northern Seward Peninsula, Alaska. Journal of Geophysical Research, 2011, 116, .	3.3	250
3	21st-century modeled permafrost carbon emissions accelerated by abrupt thaw beneath lakes. Nature Communications, 2018, 9, 3262.	12.8	187
4	Remote sensing quantifies widespread abundance of permafrost region disturbances across the Arctic and Subarctic. Nature Communications, 2018, 9, 5423.	12.8	179
5	A global database of lake surface temperatures collected by in situ and satellite methods from 1985â€“2009. Scientific Data, 2015, 2, 150008.	5.3	153
6	Reviews and syntheses: Changing ecosystem influences on soil thermal regimes in northern high-latitude permafrost regions. Biogeosciences, 2018, 15, 5287-5313.	3.3	143
7	Recent Arctic tundra fire initiates widespread thermokarst development. Scientific Reports, 2015, 5, 15865.	3.3	139
8	Methods to assess natural and anthropogenic thaw lake drainage on the western Arctic coastal plain of northern Alaska. Journal of Geophysical Research, 2007, 112, .	3.3	134
9	Fire Behavior, Weather, and Burn Severity of the 2007 Anaktuvuk River Tundra Fire, North Slope, Alaska. Arctic, Antarctic, and Alpine Research, 2009, 41, 309-316.	1.1	115
10	Landsat-Based Trend Analysis of Lake Dynamics across Northern Permafrost Regions. Remote Sensing, 2017, 9, 640.	4.0	110
11	Hydrogeomorphic processes of thermokarst lakes with groundedâ€ice and floatingâ€ice regimes on the Arctic coastal plain, Alaska. Hydrological Processes, 2011, 25, 2422-2438.	2.6	106
12	The footprint of Alaskan tundra fires during the past half-century: implications for surface properties and radiative forcing. Environmental Research Letters, 2012, 7, 044039.	5.2	98
13	Spatiotemporal remote sensing of ecosystem change and causation across Alaska. Global Change Biology, 2019, 25, 1171-1189.	9.5	91
14	Peat accumulation in drained thermokarst lake basins in continuous, iceâ€rich permafrost, northern Seward Peninsula, Alaska. Journal of Geophysical Research, 2012, 117, .	3.3	84
15	Rapid initialization of retrogressive thaw slumps in the Canadian high Arctic and their response to climate and terrain factors. Environmental Research Letters, 2019, 14, 055006.	5.2	80
16	Observing a Catastrophic Thermokarst Lake Drainage in Northern Alaska. Permafrost and Periglacial Processes, 2015, 26, 119-128.	3.4	76
17	Drivers, dynamics and impacts of changing Arctic coasts. Nature Reviews Earth & Environment, 2022, 3, 39-54.	29.7	74
18	Shifting balance of thermokarst lake ice regimes across the Arctic Coastal Plain of northern Alaska. Geophysical Research Letters, 2012, 39, .	4.0	73

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19	A decade of remotely sensed observations highlight complex processes linked to coastal permafrost bluff erosion in the Arctic. Environmental Research Letters, 2018, 13, 115001.	5.2	73
20	Arctic Lake Physical Processes and Regimes with Implications for Winter Water Availability and Management in the National Petroleum Reserve Alaska. Environmental Management, 2009, 43, 1071-1084.	2.7	70
21	Threshold sensitivity of shallow Arctic lakes and sublake permafrost to changing winter climate. Geophysical Research Letters, 2016, 43, 6358-6365.	4.0	68
22	Depth, ice thickness, and iceâ€out timing cause divergent hydrologic responses among Arctic lakes. Water Resources Research, 2015, 51, 9379-9401.	4.2	66
23	Spatial distribution of thermokarst terrain in Arctic Alaska. Geomorphology, 2016, 273, 116-133.	2.6	66
24	Tundra be dammed: Beaver colonization of the Arctic. Global Change Biology, 2018, 24, 4478-4488.	9.5	66
25	InSAR detects increase in surface subsidence caused by an Arctic tundra fire. Geophysical Research Letters, 2014, 41, 3906-3913.	4.0	64
26	PeRL: aÂcircum-Arctic Permafrost Region Pond andÂLakeÂdatabase. Earth System Science Data, 2017, 9, 317-348.	9.9	62
27	Recent lake iceâ€out phenology within and among lake districts of Alaska, U.S.A. Limnology and Oceanography, 2013, 58, 2013-2028.	3.1	59
28	Identification of unrecognized tundra fire events on the north slope of Alaska. Journal of Geophysical Research G: Biogeosciences, 2013, 118, 1334-1344.	3.0	58
29	Analyzing floating and bedfast lake ice regimes across Arctic Alaska using 25â€years of space-borne SAR imagery. Remote Sensing of Environment, 2018, 209, 660-676.	11.0	57
30	Application of groundâ€penetrating radar imagery for threeâ€dimensional visualisation of nearâ€surface structures in iceâ€rich permafrost, Barrow, Alaska. Permafrost and Periglacial Processes, 2007, 18, 309-321.	3.4	51
31	The catastrophic thermokarst lake drainage events of 2018 in northwestern Alaska: fast-forward into the future. Cryosphere, 2020, 14, 4279-4297.	3.9	51
32	Seasonal thaw settlement at drained thermokarst lake basins, Arctic Alaska. Cryosphere, 2014, 8, 815-826.	3.9	50
33	Radiocarbon age-offsets in an arctic lake reveal the long-term response of permafrost carbon to climate change. Journal of Geophysical Research G: Biogeosciences, 2014, 119, 1630-1651.	3.0	49
34	Quantifying landscape change in an arctic coastal lowland using repeat airborne LiDAR. Environmental Research Letters, 2013, 8, 045025.	5.2	47
35	Temporal and spatial variability in coastline response to declining sea-ice in northwest Alaska. Marine Geology, 2018, 404, 71-83.	2.1	47
36	Detecting unfrozen sediments below thermokarst lakes with surface nuclear magnetic resonance. Geophysical Research Letters, 2013, 40, 535-540.	4.0	45

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37	Spatial distribution of pingos in northern Asia. Cryosphere, 2011, 5, 13-33.	3.9	44
38	Two mechanisms of aquatic and terrestrial habitat change along an Alaskan Arctic coastline. Polar Biology, 2010, 33, 1629-1640.	1.2	42
39	Feasibility of tundra vegetation height retrieval from Sentinel-1 and Sentinel-2 data. Remote Sensing of Environment, 2020, 237, 111515.	11.0	42
40	Drainage Network Structure and Hydrologic Behavior of Three Lake-Rich Watersheds on the Arctic Coastal Plain, Alaska. Arctic, Antarctic, and Alpine Research, 2012, 44, 385-398.	1.1	41
41	Lake and drained lake basin systems in lowland permafrost regions. Nature Reviews Earth & Environment, 2022, 3, 85-98.	29.7	41
42	Shallow soils are warmer under trees and tall shrubs across Arctic and Boreal ecosystems. Environmental Research Letters, 2021, 16, 015001.	5.2	39
43	Assessment of pingo distribution and morphometry using an IfSAR derived digital surface model, western Arctic Coastal Plain, Northern Alaska. Geomorphology, 2012, 138, 1-14.	2.6	37
44	Rapid movement of frozen debris-lobes: implications for permafrost degradation and slope instability in the south-central Brooks Range, Alaska. Natural Hazards and Earth System Sciences, 2012, 12, 1521-1537.	3.6	37
45	Process-Based Coastal Erosion Modeling for Drew Point, North Slope, Alaska. Journal of Waterway, Port, Coastal and Ocean Engineering, 2012, 138, 122-130.	1.2	36
46	Younger-Dryas cooling and sea-ice feedbacks were prominent features of the Pleistocene-Holocene transition in Arctic Alaska. Quaternary Science Reviews, 2017, 169, 330-343.	3.0	36
47	The evolution of a thermokarst-lake landscape: Late Quaternary permafrost degradation and stabilization in interior Alaska. Sedimentary Geology, 2016, 340, 3-14.	2.1	35
48	Paleoenvironmental analyses of an organic deposit from an erosional landscape remnant, Arctic Coastal Plain of Alaska. Palaeogeography, Palaeoclimatology, Palaeoecology, 2005, 217, 187-204.	2.3	34
49	Presence of rapidly degrading permafrost plateaus in south-central Alaska. Cryosphere, 2016, 10, 2673-2692.	3.9	34
50	Characterizing Post-Drainage Succession in Thermokarst Lake Basins on the Seward Peninsula, Alaska with TerraSAR-X Backscatter and Landsat-based NDVI Data. Remote Sensing, 2012, 4, 3741-3765.	4.0	33
51	Aeolian stratigraphy describes ice-age paleoenvironments in unglaciated Arctic Alaska. Quaternary Science Reviews, 2018, 182, 175-190.	3.0	33
52	Transferability of the Deep Learning Mask R-CNN Model for Automated Mapping of Ice-Wedge Polygons in High-Resolution Satellite and UAV Images. Remote Sensing, 2020, 12, 1085.	4.0	33
53	Understanding the synergies of deep learning and data fusion of multispectral and panchromatic high resolution commercial satellite imagery for automated ice-wedge polygon detection. ISPRS Journal of Photogrammetry and Remote Sensing, 2020, 170, 174-191.	11.1	32
54	Lake Temperature and Ice Cover Regimes in the Alaskan Subarctic and Arctic: Integrated Monitoring, Remote Sensing, and Modeling¹. Journal of the American Water Resources Association, 2010, 46, 777-791.	2.4	30

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55	Identifying historical and future potential lake drainage events on the western Arctic coastal plain of Alaska. Permafrost and Periglacial Processes, 2020, 31, 110-127.	3.4	30
56	High potential for loss of permafrost landforms in a changing climate. Environmental Research Letters, 2020, 15, 104065.	5.2	28
57	Classification of freshwater ice conditions on the Alaskan Arctic Coastal Plain using ground penetrating radar and TerraSAR-X satellite data. International Journal of Remote Sensing, 2013, 34, 8267-8279.	2.9	27
58	Erosional history of Cape Halkett and contemporary monitoring of bluff retreat, Beaufort Sea coast, Alaska. Polar Geography, 2009, 32, 129-142.	1.9	26
59	Reconstructing Turbidity in a Glacially Influenced Lake Using the Landsat TM and ETM+ Surface Reflectance Climate Data Record Archive, Lake Clark, Alaska. Remote Sensing, 2015, 7, 13692-13710.	4.0	26
60	Midâ€Wisconsin to Holocene Permafrost and Landscape Dynamics based on a Drained Lake Basin Core from the Northern Seward Peninsula, Northwest Alaska. Permafrost and Periglacial Processes, 2016, 27, 56-75.	3.4	26
61	Distribution and biophysical processes of beaded streams in Arctic permafrost landscapes. Biogeosciences, 2015, 12, 29-47.	3.3	25
62	Size Distributions of Arctic Waterbodies Reveal Consistent Relations in Their Statistical Moments in Space and Time. Frontiers in Earth Science, 2019, 7, .	1.8	25
63	Evidence of multiple thermokarst lake generations from an 11Â800â€yearâ€old permafrost core on the northern S eward P eninsula, A laska. Boreas, 2016, 45, 584-603.	2.4	24
64	Arctic sea ice decline contributes to thinning lake ice trend in northern Alaska. Environmental Research Letters, 2016, 11, 074022.	5.2	22
65	Ice roads through lake-rich Arctic watersheds: Integrating climate uncertainty and freshwater habitat responses into adaptive management. Arctic, Antarctic, and Alpine Research, 2019, 51, 9-23.	1.1	22
66	Understanding the Effects of Optimal Combination of Spectral Bands on Deep Learning Model Predictions: A Case Study Based on Permafrost Tundra Landform Mapping Using High Resolution Multispectral Satellite Imagery. Journal of Imaging, 2020, 6, 97.	3.0	22
67	Advancing Landscape Change Research through the Incorporation of IÃ±upiaq Knowledge. Arctic, 2009, 62, .	0.4	22
68	Expansion rate and geometry of floating vegetation mats on the margins of thermokarst lakes, northern Seward Peninsula, Alaska, USA. Earth Surface Processes and Landforms, 2011, 36, 1889-1897.	2.5	21
69	Transient Electromagnetic Surveys for the Determination of Talik Depth and Geometry Beneath Thermokarst Lakes. Journal of Geophysical Research: Solid Earth, 2018, 123, 9310-9323.	3.4	21
70	Decadal-scale hotspot methane ebullition within lakes following abrupt permafrost thaw. Environmental Research Letters, 2021, 16, 035010.	5.2	21
71	Increase in beaver dams controls surface water and thermokarst dynamics in an Arctic tundra region, Baldwin Peninsula, northwestern Alaska. Environmental Research Letters, 2020, 15, 075005.	5.2	20
72	A lake-centric geospatial database to guide research and inform management decisions in an Arctic watershed in northern Alaska experiencing climate and land-use changes. Ambio, 2017, 46, 769-786.	5.5	19

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73	Remotely Sensing the Morphometrics and Dynamics of a Cold Region Dune Field Using Historical Aerial Photography and Airborne LiDAR Data. Remote Sensing, 2018, 10, 792.	4.0	18
74	Recurring outburst floods from drained lakes: an emerging Arctic hazard. Frontiers in Ecology and the Environment, 2020, 18, 384-390.	4.0	18
75	Prevention and control measures for coastal erosion in northern high-latitude communities: a systematic review based on Alaskan case studies. Environmental Research Letters, 2020, 15, 093002.	5.2	18
76	An Object-Based Approach for Mapping Tundra Ice-Wedge Polygon Troughs from Very High Spatial Resolution Optical Satellite Imagery. Remote Sensing, 2021, 13, 558.	4.0	17
77	Impacts of shore expansion and catchment characteristics on lacustrine thermokarst records in permafrost lowlands, Alaska Arctic Coastal Plain. Arktos, 2016, 2, 1.	1.0	16
78	Organic Carbon and Nitrogen Stocks Along a Thermokarst Lake Sequence in Arctic Alaska. Journal of Geophysical Research G: Biogeosciences, 2019, 124, 1230-1247.	3.0	16
79	The Role of Thermal Denudation in Erosion of Ice-Rich Permafrost Coasts in an Enclosed Bay (Gulf of) Tj ETQq1 1 0.784314 rgBT /Over	1.8	16
80	Potential shifts in zooplankton community structure in response to changing ice regimes and hydrologic connectivity. Arctic, Antarctic, and Alpine Research, 2019, 51, 327-345.	1.1	15
81	Taliks, cryopegs, and permafrost dynamics related to channel migration, Colville River Delta, Alaska. Permafrost and Periglacial Processes, 2020, 31, 239-254.	3.4	14
82	Fluvioâ€thermal erosion and thermal denudation in the yedoma region of northern Alaska: Revisiting the Itkillik River exposure. Permafrost and Periglacial Processes, 2021, 32, 277-298.	3.4	14
83	Modern Erosion Rates and Loss of Coastal Features and Sites, Beaufort Sea Coastline, Alaska. Arctic, 2009, 61, .	0.4	14
84	Thermokarst acceleration in Arctic tundra driven by climate change and fire disturbance. One Earth, 2021, 4, 1718-1729.	6.8	14
85	The Polar WRF Downscaled Historical and Projected Twenty-First Century Climate for the Coast and Foothills of Arctic Alaska. Frontiers in Earth Science, 0, 5, .	1.8	13
86	Surface nuclear magnetic resonance observations of permafrost thaw below floating, bedfast, and transitional ice lakes. Geophysics, 2019, 84, EN33-EN45.	2.6	13
87	Recent warming reverses forty-year decline in catastrophic lake drainage and hastens gradual lake drainage across northern Alaska. Environmental Research Letters, 2021, 16, 124019.	5.2	13
88	Mapping Exposure to Flooding in Three Coastal Communities on the North Slope of Alaska Using Airborne LiDAR. Coastal Management, 2020, 48, 96-117.	2.0	12
89	First pan-Arctic assessment of dissolved organic carbon in lakes of the permafrost region. Biogeosciences, 2021, 18, 3917-3936.	3.3	12
90	A Quantitative Graph-Based Approach to Monitoring Ice-Wedge Trough Dynamics in Polygonal Permafrost Landscapes. Remote Sensing, 2021, 13, 3098.	4.0	12

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91	The shifting mosaic of ice-wedge degradation and stabilization in response to infrastructure and climate change, Prudhoe Bay Oilfield, Alaska, USA. Arctic Science, 2022, 8, 498-530.	2.3	12
92	Spatio-Temporal Analysis of Gyres in Oriented Lakes on the Arctic Coastal Plain of Northern Alaska Based on Remotely Sensed Images. Remote Sensing, 2014, 6, 9170-9193.	4.0	11
93	High-resolution records detect human-caused changes to the boreal forest wildfire regime in interior Alaska. Holocene, 2016, 26, 1064-1074.	1.7	11
94	Alaskan marine transgressions record out-of-phase Arctic Ocean glaciation during the last interglacial. Geology, 2018, 46, 783-786.	4.4	11
95	Contrasting lake ice responses to winter climate indicate future variability and trends on the Alaskan Arctic Coastal Plain. Environmental Research Letters, 2018, 13, 125001.	5.2	11
96	Traumatic Resin Ducts in Alaska Mountain Hemlock Trees Provide a New Proxy for Winter Storminess. Journal of Geophysical Research G: Biogeosciences, 2019, 124, 1923-1938.	3.0	11
97	Estimation of snow accumulation over frozen Arctic lakes using repeat ICESat laser altimetry observations â€“ A case study in northern Alaska. Remote Sensing of Environment, 2018, 216, 529-543.	11.0	10
98	Geophysical Observations of Taliks Below Drained Lake Basins on the Arctic Coastal Plain of Alaska. Journal of Geophysical Research: Solid Earth, 2021, 126, e2020JB020889.	3.4	9
99	Understanding Effects of Permafrost Degradation and Coastal Erosion on Civil Infrastructure in Arctic Coastal Villages: A Community Survey and Knowledge Co-Production. Journal of Marine Science and Engineering, 2022, 10, 422.	2.6	9
100	Geometric and Material Variability Influences Stress States Relevant to Coastal Permafrost Bluff Failure. Frontiers in Earth Science, 2020, 8, .	1.8	8
101	Tussocks Enduring or Shrubs Greening: Alternate Responses to Changing Fire Regimes in the Noatak River Valley, Alaska. Journal of Geophysical Research G: Biogeosciences, 2021, 126, e2020JG006009.	3.0	8
102	Remote Sensing-Based Statistical Approach for Defining Drained Lake Basins in a Continuous Permafrost Region, North Slope of Alaska. Remote Sensing, 2021, 13, 2539.	4.0	8
103	Seven Decades of Coastal Change at Barter Island, Alaska: Exploring the Importance of Waves and Temperature on Erosion of Coastal Permafrost Bluffs. Remote Sensing, 2021, 13, 4420.	4.0	8
104	Expanding beaver pond distribution in Arctic Alaska, 1949 to 2019. Scientific Reports, 2022, 12, 7123.	3.3	8
105	Timing and Potential Causes of 19th-Century Glacier Advances in Coastal Alaska Based on Tree-Ring Dating and Historical Accounts. Frontiers in Earth Science, 2019, 7, .	1.8	7
106	Influence of surface water on coarse resolution C-band backscatter: Implications for freeze/thaw retrieval from scatterometer data. Remote Sensing of Environment, 2020, 247, 111911.	11.0	7
107	Yedoma Cryostratigraphy of Recently Excavated Sections of the CRREL Permafrost Tunnel Near Fairbanks, Alaska. Frontiers in Earth Science, 2022, 9, .	1.8	7
108	Geochemistry of Coastal Permafrost and Erosion-Driven Organic Matter Fluxes to the Beaufort Sea Near Drew Point, Alaska. Frontiers in Earth Science, 2021, 8, .	1.8	6

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109	Landsat-derived bathymetry of lakes on the Arctic Coastal Plain of northern Alaska. Earth System Science Data, 2021, 13, 1135-1150.	9.9	6
110	Modelling the impacts of projected sea ice decline on the low atmosphere and nearâ€surface permafrost on the North Slope of Alaska. International Journal of Climatology, 2018, 38, 5491-5504.	3.5	5
111	Unpiloted Aerial Vehicle Retrieval of Snow Depth Over Freshwater Lake Ice Using Structure From Motion. Frontiers in Remote Sensing, 2021, 2, .	3.5	5
112	Multi-Dimensional Remote Sensing Analysis Documents Beaver-Induced Permafrost Degradation, Seward Peninsula, Alaska. Remote Sensing, 2021, 13, 4863.	4.0	5
113	A new Stefan equation to characterize the evolution of thermokarst lake and talik geometry. Cryosphere, 2022, 16, 1247-1264.	3.9	5
114	Sedimentary and geochemical characteristics of two small permafrost-dominated Arctic river deltas in northern Alaska. Arktos, 2018, 4, 1-18.	1.0	4
115	Remote Sensing Leads to Better Understanding of Polar Regions. Eos, 2018, 99, .	0.1	3
116	Spatial snowdrift modelling for an open natural terrain using a physicallyâ€based linear particle distribution equation. Hydrological Processes, 2022, 36, .	2.6	3
117	Sikuliqiruq: ice dynamics of the Meade River â€“ Arctic Alaska, from freezeup to breakup from time-series ground imagery. Polar Geography, 2010, 33, 115-137.	1.9	2
118	Sensitivity of Multifrequency Polarimetric SAR Data to Postfire Permafrost Changes and Recovery Processes in Arctic Tundra. IEEE Transactions on Geoscience and Remote Sensing, 2022, 60, 1-15.	6.3	2
119	Radar imaging of winter seismic survey activity in the National Petroleum Reserve-Alaska. Polar Record, 2008, 44, 227-231.	0.8	1
120	Potential of Full-Polarimetric P-and L-Band SAR Data in Characterizing Post-Fire Recovery of Arctic Tundra. , 2021, , .		0