Roy Carl Sidle

List of Publications by Year
in descending order

148 papers	9,433 citations	41258 49 h-index	40881 93 g-index
153 all docs	153 docs citations	153 times ranked	6905 citing authors

#	Article	IF	Citations
1	Understanding Processes and Downstream Linkages of Headwater Systems. BioScience, 2002, 52, 905.	2.2	622
2	A Distributed Slope Stability Model for Steep Forested Basins. Water Resources Research, 1995, 31, 2097-2110.	1.7	544
3	Desirable plant root traits for protecting natural and engineered slopes against landslides. Plant and Soil, 2009, 324, 1-30.	1.8	513
4	Erosion processes in steep terrainâ€"Truths, myths, and uncertainties related to forest management in Southeast Asia. Forest Ecology and Management, 2006, 224, 199-225.	1.4	459
5	Stormflow generation in steep forested headwaters: a linked hydrogeomorphic paradigm. Hydrological Processes, 2000, 14, 369-385.	1.1	417
6	The Influence of Plant Root Systems on Subsurface Flow: Implications for Slope Stability. BioScience, 2011, 61, 869-879.	2.2	351
7	A conceptual model of preferential flow systems in forested hillslopes: evidence of self-organization. Hydrological Processes, 2001, 15, 1675-1692.	1.1	270
8	Morphological Characteristics of Macropores and the Distribution of Preferential Flow Pathways in a Forested Slope Segment. Soil Science Society of America Journal, 1999, 63, 1413-1423.	1.2	202
9	Dynamic earth system and ecological controls of rainfall-initiated landslides. Earth-Science Reviews, 2016, 159, 275-291.	4.0	192
10	Flow and solute transport through the soil matrix and macropores of a hillslope segment. Water Resources Research, 1994, 30, 879-890.	1.7	189
11	A theoretical model of the effects of timber harvesting on slope stability. Water Resources Research, 1992, 28, 1897-1910.	1.7	175
12	Effects of forest harvesting on the occurrence of landslides and debris flows in steep terrain of central Japan. Earth Surface Processes and Landforms, 2008, 33, 827-840.	1.2	150
13	Sediment pathways in a tropical forest: effects of logging roads and skid trails. Hydrological Processes, 2004, 18, 703-720.	1.1	149
14	Dynamic runoff connectivity of overland flow on steep forested hillslopes: Scale effects and runoff transfer. Water Resources Research, 2008, 44, .	1.7	149
15	Characterizing relationships among fecal indicator bacteria, microbial source tracking markers, and associated waterborne pathogen occurrence in stream water and sediments in a mixed land use watershed. Water Research, 2016, 101, 498-509.	5.3	122
16	Seasonal hydrologic response at various spatial scales in a small forested catchment, Hitachi Ohta, Japan. Journal of Hydrology, 1995, 168, 227-250.	2.3	116
17	Spatially varying hydraulic and solute transport characteristics of a fractured till determined by field tracer tests, Funen, Denmark. Water Resources Research, 1998, 34, 2515-2527.	1.7	115
18	Long-term modelling of landslides for different forest management practices. Earth Surface Processes and Landforms, 2003, 28, 853-868.	1.2	106

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19	Characteristics of channel steps and reach morphology in headwater streams, southeast Alaska. Geomorphology, 2003, 51, 225-242.	1.1	106
20	Hortonian overland flow from Japanese forest plantationsâ€"an aberration, the real thing, or something in between?. Hydrological Processes, 2007, 21, 3237-3247.	1.1	106
21	A Conceptual Model of Changes in Root Cohesion in Response to Vegetation Management. Journal of Environmental Quality, 1991, 20, 43-52.	1.0	105
22	How do disconnected macropores in sloping soils facilitate preferential flow?. Hydrological Processes, 2010, 24, 1582-1594.	1.1	100
23	Linkage of sediment supply and transport processes in Miyagawa Dam catchment, Japan. Journal of Geophysical Research, 2007, 112, .	3.3	93
24	The dilemma of mountain roads. Nature Geoscience, 2012, 5, 437-438.	5.4	89
25	Runoff responses to forest thinning at plot and catchment scales in a headwater catchment draining Japanese cypress forest. Journal of Hydrology, 2012, 444-445, 51-62.	2.3	89
26	The characteristics of woody debris and sediment distribution in headwater streams, southeastern Alaska. Canadian Journal of Forest Research, 2001, 31, 1386-1399.	0.8	81
27	Characteristics of overland flow generation on steep forested hillslopes of central Japan. Journal of Hydrology, 2008, 361, 275-290.	2.3	81
28	An overview of the field and modelling studies on the effects of forest devastation on flooding and environmental issues. Hydrological Processes, 2010, 24, 527-534.	1.1	80
29	Soil conditions in three recent landslides in Southeast Alaska. Forest Ecology and Management, 1987, 18, 93-102.	1.4	79
30	Distributed simulations of landslides for different rainfall conditions. Hydrological Processes, 2004, 18, 757-776.	1.1	78
31	Sediment and wood accumulations in humid tropical headwater streams: Effects of logging and riparian buffers. Forest Ecology and Management, 2006, 224, 166-175.	1.4	75
32	Hydrogeomorphic processes in a steep debris flow initiation zone. Geophysical Research Letters, 2006, 33, n/a-n/a.	1.5	74
33	Reductions in water, soil and nutrient losses and pesticide pollution in agroforestry practices: a review of evidence and processes. Plant and Soil, 2020, 453, 45-86.	1.8	70
34	Hydrogeomorphic processes and scaling issues in the continuum from soil pedons to catchments. Earth-Science Reviews, 2017, 175, 75-96.	4.0	69
35	A zero-order basin?its contribution to catchment hydrology and internal hydrological processes. Hydrological Processes, 2000, 14, 387-401.	1.1	65
36	A spatial and temporal model of root cohesion in forest soils. Canadian Journal of Forest Research, 2004, 34, 950-958.	0.8	65

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37	Assessment of UAV and Ground-Based Structure from Motion with Multi-View Stereo Photogrammetry in a Gullied Savanna Catchment. ISPRS International Journal of Geo-Information, 2017, 6, 328.	1.4	65
38	Spatially Distributed Morphological Characteristics of Macropores in Forest Soils of Hitachi Ohta Experimental Watershed, Japan. Journal of Forest Research, 1997, 2, 207-215.	0.7	63
39	Hydrogeomorphology: overview of an emerging science. Hydrological Processes, 2004, 18, 597-602.	1.1	61
40	Field observations and process understanding in hydrology: essential components in scaling. Hydrological Processes, 2006, 20, 1439-1445.	1.1	60
41	Preferential flow mechanisms identified from staining experiments in forested hillslopes. Hydrological Processes, 2015, 29, 4562-4578.	1.1	58
42	Hydrogeomorphic linkages of sediment transport in headwater streams, Maybeso Experimental Forest, southeast Alaska. Hydrological Processes, 2004, 18, 667-683.	1.1	56
43	Impacts of logging disturbance on hillslope saturated hydraulic conductivity in a tropical forest in Peninsular Malaysia. Catena, 2006, 67, 89-104.	2.2	56
44	Evaluation of storm runoff pathways in steep nested catchments draining a Japanese cypress forest in central Japan: a geochemical approach. Hydrological Processes, 2010, 24, 550-566.	1.1	56
45	Bed load transport in managed steep-gradient headwater streams of southeastern Alaska. Water Resources Research, 2003, 39, .	1.7	55
46	Broader perspective on ecosystem sustainability: Consequences for decision making. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 9201-9208.	3.3	55
47	Subsurface runoff characteristics from a forest hillslope soil profile including macropores, Hitachi Ohta, Japan. Hydrological Processes, 2001, 15, 2131-2149.	1.1	53
48	Monitored and simulated variations in matric suction during rainfall in a residual soil slope. Environmental Geology, 2008, 55, 951-961.	1.2	50
49	Shallow lateral flow from a forested hillslope: Influence of antecedent wetness. Catena, 2005, 60, 293-306.	2.2	49
50	Landslides and debris flows strike Kyushu, Japan. Eos, 2004, 85, 145.	0.1	48
51	Earthquake-induced displacements of gravity retaining walls and anchor-reinforced slopes. Soil Dynamics and Earthquake Engineering, 2009, 29, 428-437.	1.9	47
52	Internal Erosion during Soil Pipeflow: State of the Science for Experimental and Numerical Analysis. Transactions of the ASABE, 2013, 56, 465-478.	1.1	47
53	Turbidity-based sediment monitoring in northern Thailand: Hysteresis, variability, and uncertainty. Journal of Hydrology, 2014, 519, 2020-2039.	2.3	45
54	Persistence of road runoff generation in a logged catchment in Peninsular Malaysia. Earth Surface Processes and Landforms, 2007, 32, 1947-1970.	1.2	43

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55	Contemporary changes in open water surface area of Lake Inle, Myanmar. Sustainability Science, 2007, 2, 55-65.	2.5	43
56	Unprecedented rates of landslide and surface erosion along a newly constructed road in Yunnan, China. Natural Hazards, 2011, 57, 313-326.	1.6	43
57	Rainfall-Runoff Modelling Using Hydrological Connectivity Index and Artificial Neural Network Approach. Water (Switzerland), 2019, 11, 212.	1.2	42
58	Simulating effects of timber harvesting on the temporal and spatial distribution of shallow landslides. Zeitschrift FÃ¼r Geomorphologie, 1999, 43, 185-201.	0.3	42
59	Pore water pressure assessment in a forest watershed: Simulations and distributed field measurements related to forest practices. Water Resources Research, 2004, 40, .	1.7	41
60	Using remote sensing and traditional ecological knowledge (TEK) to understand mangrove change on the Maroochy River, Queensland, Australia. Applied Geography, 2018, 94, 71-83.	1.7	35
61	Spatial pattern of infiltration rate and its effect on hydrological processes in a small headwater catchment. Hydrological Processes, 2010, 24, 535-549.	1.1	34
62	Effect of forest harvesting on hydrogeomorphic processes in steep terrain of central Japan. Geomorphology, 2012, 169-170, 109-122.	1.1	34
63	Linking hydrological connectivity to gully erosion in savanna rangelands tributary to the Great Barrier Reef using structureâ€fromâ€motion photogrammetry. Land Degradation and Development, 2020, 31, 20-36.	1.8	34
64	Reduction of Stream Sediment Concentration by a Riparian Buffer: Filtering of Road Runoff in Disturbed Headwater Basins of Montane Mainland Southeast Asia. Journal of Environmental Quality, 2006, 35, 151-162.	1.0	32
65	PATTERNS OF SUSPENDED SEDIMENT TRANSPORT IN A COASTAL ALASKA STREAM. Journal of the American Water Resources Association, 1985, 21, 909-917.	1.0	31
66	Development of a simple lateral preferential flow model with steady state application in hillslope soils. Water Resources Research, 2005, 41, .	1.7	31
67	Disturbances structuring macroinvertebrate communities in steep headwater streams: relative importance of forest clearcutting and debris flow occurrence. Canadian Journal of Fisheries and Aquatic Sciences, 2010, 67, 427-444.	0.7	29
68	Hydrogeomorphic processes affecting dryland gully erosion: Implications for modelling. Progress in Physical Geography, 2019, 43, 46-64.	1.4	29
69	Fate of Heavy Metals in an Abandoned Leadâ€Zinc Tailings Pond: II. Sediment. Journal of Environmental Quality, 1991, 20, 752-758.	1.0	27
70	Throughflow variability during snowmelt in a forested mountain catchment, coastal British Columbia, Canada. Hydrological Processes, 2004, 18, 1219-1236.	1.1	27
71	Stream Channel Changes Associated with Mining and Grazing in the Great Basin. Journal of Environmental Quality, 1996, 25, 1111-1121.	1.0	25
72	Effective slope lengths for buffering hillslope surface runoff in fragmented landscapes in northern Vietnam. Forest Ecology and Management, 2006, 224, 104-118.	1.4	25

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73	Assessing spatially distributed infiltration capacity to evaluate storm runoff in forested catchments: Implications for hydrological connectivity. Science of the Total Environment, 2019, 669, 148-159.	3.9	25
74	Application of Decision Analysis to Forest Road Deactivation in Unstable Terrain. Environmental Management, 2004, 33, 173-185.	1.2	24
75	Epic landslide erosion from mountain roads in Yunnan, China â€“ challenges for sustainable development. Natural Hazards and Earth System Sciences, 2014, 14, 3093-3104.	1.5	24
76	The canopy interceptionâ€“landslide initiation conundrum: insight from a tropical secondary forest in northern Thailand. Hydrology and Earth System Sciences, 2017, 21, 651-667.	1.9	24
77	Tropical forest structure and understorey determine subsurface flow through biopores formed by plant roots. Catena, 2019, 181, 104061.	2.2	24
78	Characterisation of Hydrological Response to Rainfall at Multi Spatio-Temporal Scales in Savannas of Semi-Arid Australia. Water (Switzerland), 2017, 9, 540.	1.2	23
79	Root Biomechanical Traits in a Montane Mediterranean Forest Watershed: Variations with Species Diversity and Soil Depth. Forests, 2019, 10, 341.	0.9	23
80	Catchment processes in Southeast Asia: Atmospheric, hydrologic, erosion, nutrient cycling, and management effects. Forest Ecology and Management, 2006, 224, 1-4.	1.4	22
81	Effect of reduced grazing pressure on sediment and nutrient yields in savanna rangeland streams draining to the Great Barrier Reef. Journal of Hydrology, 2020, 582, 124520.	2.3	22
82	Mechanical traits of fine roots as a function of topology and anatomy. Annals of Botany, 2018, 122, 1103-1116.	1.4	21
83	Criteria for selecting fluorescent dye tracers for soil hydrological applications using Uranine as an example. Journal of Hydrology and Hydromechanics, 2013, 61, 313-325.	0.7	20
84	Temporal and spatial variation of infilling processes in a landslide scar in a steep mountainous region, Japan. Earth Surface Processes and Landforms, 2015, 40, 642-653.	1.2	20
85	Strategies for smarter catchment hydrology models: incorporating scaling and better process representation. Geoscience Letters, 2021, 8, .	1.3	19
86	Evaluation of planting sites common to a southeast Alaska clear-cut. II. Available inoculum of the ectomycorrhizal fungus Cenococcumgeophilum. Canadian Journal of Forest Research, 1983, 13, 9-11.	0.8	18
87	Evaluation of planting sites common to a southeast Alaska clear-cut. III. Effects of microsite type and ectomycorrhizal inoculation on growth and survival of Sitka spruce seedlings. Canadian Journal of Forest Research, 1987, 17, 334-339.	0.8	18
88	Cumulative Effects of Land Management on Soil and Water Resources: An Overview. Journal of Environmental Quality, 1991, 20, 1-3.	1.0	17
89	Transport and biodegradation of creosote compounds in clayey till, a field experiment. Journal of Contaminant Hydrology, 2000, 41, 239-260.	1.6	17
90	Overview of Landslide Hydrology. Water (Switzerland), 2019, 11, 148.	1.2	17

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91	Mapping Landslide Prediction through a GIS-Based Model: A Case Study in a Catchment in Southern Italy. Geosciences (Switzerland), 2020, 10, 309.	1.0	16
92	Impact of roadâ€generated storm runoff on a small catchment response. Hydrological Processes, 2009, 23, 3631-3638.	1.1	15
93	Recognizing the importance of tropical forests in limiting rainfall-induced debris flows. Environmental Earth Sciences, 2012, 67, 1225-1235.	1.3	15
94	Characteristics of landslides in unwelded pyroclastic flow deposits, southern Kyushu, Japan. Natural Hazards and Earth System Sciences, 2016, 16, 617-627.	1.5	15
95	Characterization of vertical unsaturated flow reveals why storm runoff responses can be simulated by simple runoff-storage relationship models. Journal of Hydrology, 2020, 588, 124982.	2.3	15
96	Improving the Accuracy of Hydrodynamic Model Predictions Using Lagrangian Calibration. Water (Switzerland), 2020, 12, 575.	1.2	15
97	Evaluating landslide damage during the 2004 Chuetsu earthquake, Niigata Japan. Eos, 2005, 86, 133.	0.1	14
98	Erosion Processes on Arid Minespoil Slopes. Soil Science Society of America Journal, 1993, 57, 1341-1347.	1.2	13
99	Peak flow responses and recession flow characteristics after thinning of Japanese cypress forest in a headwater catchment. Hydrological Research Letters, 2012, 6, 35-40.	0.3	13
100	Discovery of zeroâ€order basins as an important link for progress in hydrogeomorphology. Hydrological Processes, 2018, 32, 3059-3065.	1.1	13
101	Evaluating Factors for Controlling Sediment Connectivity of Landslide Materials: A Flume Experiment. Water (Switzerland), 2019, 11, 17.	1.2	13
102	A Comparison of Piezometric Response in Unchanneled Hillslope Hollows: Coastal Alaska and Japan. Suimon Mizu Shigen Gakkaishi, 1992, 5, 3-11.	0.1	13
103	Factors Affecting Generation of Hortonian Overland Flow in Forested Hillslopes: Analysis of Observation Results at Three Sites with Different Geology and Rainfall Characteristics.. Journal of the Japanese Forest Society, 2009, 91, 398-407.	0.1	13
104	Sorption of Uranine on Forest Soils. Hydrological Research Letters, 2008, 2, 32-35.	0.3	12
105	Development and application of a simple hydrogeomorphic model for headwater catchments. Water Resources Research, 2011, 47, .	1.7	12
106	Ecosystem changes following the 2016 Kumamoto earthquakes in Japan: Future perspectives. Ambio, 2018, 47, 721-734.	2.8	12
107	Evaluation of planting sites common to a southeast Alaska clear-cut. I. Nutrient status. Canadian Journal of Forest Research, 1983, 13, 1-8.	0.8	11
108	Influence of forest harvesting activities on debris avalanches and flows. , 2005, , 387-409.		11

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109	The continuum of chronic to episodic natural hazards: Implications and strategies for community and landscape planning. Landscape and Urban Planning, 2017, 167, 189-197.	3.4	11
110	Site Damage from Mechanized Thinning in Southeast Alaska. Northern Journal of Applied Forestry, 1986, 3, 94-97.	0.5	9
111	Temperate forests and rangelands. , 0, , 321-343.		9
112	Elephant Trail Runoff and Sediment Dynamics in Northern Thailand. Journal of Environmental Quality, 2010, 39, 871-881.	1.0	9
113	Characteristics of landslides in forests and grasslands triggered by the 2016 Kumamoto earthquake. Earth Surface Processes and Landforms, 2020, 45, 893-904.	1.2	9
114	PREDICTION OF PEAK FLOWS ON SMALL WATERSHEDS IN OREGON FOR USE IN CULVERT DESIGN. Journal of the American Water Resources Association, 1984, 20, 9-14.	1.0	8
115	Modeling runoff dynamics from zero-order basins: implications for hydrological pathways. Hydrological Research Letters, 2011, 5, 6-10.	0.3	8
116	Evaluation of the temporal and spatial impacts of timber harvesting on landslide occurrence. Water Science and Application, 2001, , 179-193.	0.3	7
117	Variation in soil characteristics and hydrologic properties associated with historic land use near a recent landslide, Nagano Prefecture, Japan. Geoderma, 2009, 153, 37-51.	2.3	7
118	Observation of the Dynamics and Horizontal Dispersion in a Shallow Intermittently Closed and Open Lake and Lagoon (ICOLL). Water (Switzerland), 2018, 10, 776.	1.2	7
119	Using Weather and Climate Information for Landslide Prevention and Mitigation. , 2007, , 285-307.		7
120	Ectomycorrhizal Inoculation Fails to Improve Performance of Sitka Spruce Seedlings on Clearcuts in Southeastern Alaska. Western Journal of Applied Forestry, 1988, 3, 110-112.	0.5	6
121	Hydrogeomorphic Processes in Temperate and Tropical Forests: Effects of Land Use and Scale. Geography Compass, 2010, 4, 1115-1132.	1.5	6
122	Distribution of amphipods (Gammarus nipponensis Ueno) among mountain headwater streams with different legacies of debris flow occurrence. Ecohydrology, 2013, 6, 117-124.	1.1	6
123	Dark Clouds over the Silk Road: Challenges Facing Mountain Environments in Central Asia. Sustainability, 2020, 12, 9467.	1.6	6
124	Assessment of an ensemble-based data assimilation system for a shallow estuary. Estuarine, Coastal and Shelf Science, 2021, 257, 107389.	0.9	6
125	Improving Flow Discharge-Suspended Sediment Relations: Intelligent Algorithms versus Data Separation. Water (Switzerland), 2021, 13, 3650.	1.2	6
126	â€œEven if it doesn't come, you should be preparedâ€• Natural hazard perception, remoteness, and implications for disaster risk reduction in rural Fiji. International Journal of Disaster Risk Reduction, 2020, 48, 101591.	1.8	5

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127	Sediment and fecal indicator bacteria loading in a mixed land use watershed: Contributions from suspended sediment and bedload transport. Journal of Environmental Quality, 2021, 50, 598-611.	1.0	5
128	Topographic features and stratified soil characteristics of a hillslope with fissures formed by the 2016 Kumamoto earthquake. Geoderma, 2020, 376, 114547.	2.3	4
129	Progress Towards Understanding Stormflow Generation in Headwater Catchments. Forestry Sciences, 1998, , 483-498.	0.4	4
130	Drought Tolerant Varieties of Common Beans (Phaseolus vulgaris) in Central Afghanistan. Agronomy, 2021, 11, 2181.	1.3	4
131	A PROGRAM TO CALCULATE CHANNEL SCOUR AND FILL. Journal of the American Water Resources Association, 1989, 25, 733-741.	1.0	3
132	RUNOFF AND EROSION RESPONSE OF SIMULATED WASTE BURIAL COVERS IN A SEMI-ARID ENVIRONMENT1. Journal of the American Water Resources Association, 1999, 35, 441-455.	1.0	3
133	Comments on â€œPredicting Soil Erosion for Alternative Land Usesâ€•by E. Wang, C. Xin, J.R. Williams, and C. Xu. J. Environ. Qual. 35:459-467 (2006). Journal of Environmental Quality, 2006, 35, 2435-2438.	1.0	3
134	Towards better design and management of tsunami evacuation routes: a case study of Ao Jak Beach Road. Geological Society Special Publication, 2012, 361, 107-114.	0.8	3
135	Analysis of Overland Flow Generation and Catchment Storm Runoff Using a Distributed Runoff Model in a Headwater Catchment Draining Japanese Cypress Forest. Journal of the Japanese Forest Society, 2013, 95, 23-31.	0.1	3
136	Unraveling the Dynamics of a Creeping Slope in Northwestern Colombia: Hydrological Variables, and Geoelectrical and Seismic Signatures. Water (Switzerland), 2018, 10, 1498.	1.2	3
137	Geomorphic hazards in southâ€west Saudi Arabia: The humanâ€“environmental nexus. Area, 2019, 51, 670-680.	1.0	3
138	Linking Soil Hydrology and Creep: A Northern Andes Case. Geosciences (Switzerland), 2020, 10, 472.	1.0	3
139	Stormflow generation in steep forested headwaters: a linked hydrogeomorphic paradigm. Hydrological Processes, 2000, 14, 369-385.	1.1	3
140	Discussion¹. Journal of the American Water Resources Association, 2008, 44, 1055-1061.	1.0	2
141	Intrastorm Fluctuations of Piezometric Head and Soil Temperature within a Steep Forested Hollow. Forestry Sciences, 1998, , 475-482.	0.4	2
142	GEOMORPHIC AND PEDOLOGIC INFLUENCE ON SMALL-SCALE EPHEMERAL CHANNEL DIMENSION IN RANGELANDS. Journal of the American Water Resources Association, 1995, 31, 1051-1062.	1.0	1
143	Internal Erosion During Soil Pipe flow: Role in Gully Erosion and Hillslope Instability. , 2011, , .		1
144	Hydrologic Research in Japan: Accomplishments, Future Challenges, and Opportunities for International Collaboration. Suimon Mizu Shigen Gakkaishi, 2015, 28, 17-23.	0.1	1

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145	Crisis management: Regional approaches to geopolitical crises and natural hazards. Geographical Research, 2022, 60, 168-178.	0.9	1
146	Lagrangian Data Assimilation for Improving Model Estimates of Velocity Fields and Residual Currents in a Tidal Estuary. Applied Sciences (Switzerland), 2021, 11, 11006.	1.3	1
147	Effects of terrain on the occurrence of debris flows after forest harvesting. Geografiska Annaler, Series A: Physical Geography, 0, , 1-14.	0.6	0
148	Assimilation of GPS-tracked drifter data to improve the Eulerian velocity fields in an estuary. Estuarine, Coastal and Shelf Science, 2021, 262, 107575.	0.9	0