

Marwan A Hassan

List of Publications by Year in descending order

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137
papers

5,576
citations

71061

41
h-index

91828

69
g-index

144
all docs

144
docs citations

144
times ranked

3073
citing authors

#	ARTICLE	IF	CITATIONS
1	Stabilizing self-organized structures in gravel-bed stream channels: Field and experimental observations. <i>Water Resources Research</i> , 1998, 34, 3169-3179.	1.7	291
2	Landslide inventory in a rugged forested watershed: a comparison between air-photo and field survey data. <i>Geomorphology</i> , 2003, 54, 179-196.	1.1	189
3	Size and distance of travel of unconstrained clasts on a streambed. <i>Water Resources Research</i> , 1992, 28, 299-303.	1.7	163
4	Virtual rate and mean distance of travel of individual clasts in gravel-bed channels. <i>Earth Surface Processes and Landforms</i> , 1992, 17, 617-627.	1.2	163
5	GEOMORPHOLOGY OF STEEPLAND HEADWATERS: THE TRANSITION FROM HILLSLOPES TO CHANNELS. <i>Journal of the American Water Resources Association</i> , 2005, 41, 835-851.	1.0	163
6	The influence of microform bed roughness elements on flow and sediment transport in gravel bed rivers. <i>Earth Surface Processes and Landforms</i> , 1990, 15, 739-750.	1.2	153
7	Distance of movement of coarse particles in gravel bed streams. <i>Water Resources Research</i> , 1991, 27, 503-511.	1.7	148
8	Experiments on the effect of hydrograph characteristics on vertical grain sorting in gravel bed rivers. <i>Water Resources Research</i> , 2006, 42, .	1.7	147
9	Experiments on surface structure and partial sediment transport on a gravel bed. <i>Water Resources Research</i> , 2000, 36, 1885-1895.	1.7	131
10	SEDIMENT TRANSPORT AND CHANNEL MORPHOLOGY OF SMALL, FORESTED STREAMS. <i>Journal of the American Water Resources Association</i> , 2005, 41, 853-876.	1.0	131
11	GEOMORPHOLOGY OF STEEPLAND HEADWATERS: THE TRANSITION FROM HILLSLOPES TO CHANNELS. <i>Journal of the American Water Resources Association</i> , 2005, 41, 835-851.	1.0	127
12	FREQUENCY AND MAGNITUDE OF BEDLOAD TRANSPORT IN A MOUNTAIN RIVER. <i>Earth Surface Processes and Landforms</i> , 1996, 21, 433-445.	1.2	122
13	Mobility of bed material in Harris Creek. <i>Water Resources Research</i> , 2002, 38, 19-1-19-12.	1.7	115
14	Stepâ€ool stability: Testing the jammed state hypothesis. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	115
15	Scour, fill, and burial depth of coarse material in gravel bed streams. <i>Earth Surface Processes and Landforms</i> , 1990, 15, 341-356.	1.2	112
16	Fluvial clastic sediment yield in Canada: scaled analysis. <i>Canadian Journal of Earth Sciences</i> , 1999, 36, 1267-1280.	0.6	108
17	Glacial erosion, evolution of river long profiles, and the organization of process domains in mountain drainage basins of coastal British Columbia. <i>Journal of Geophysical Research</i> , 2006, 111, .	3.3	100
18	SUSPENDED SEDIMENT DYNAMICS IN SMALL FOREST STREAMS OF THE PACIFIC NORTHWEST. <i>Journal of the American Water Resources Association</i> , 2005, 41, 877-898.	1.0	99

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19	SPATIAL AND TEMPORAL DYNAMICS OF WOOD IN HEADWATER STREAMS OF THE PACIFIC NORTHWEST. Journal of the American Water Resources Association, 2005, 41, 899-919.	1.0	98
20	Salmonâ€driven bed load transport and bed morphology in mountain streams. Geophysical Research Letters, 2008, 35, .	1.5	88
21	Vertical mixing of coarse particles in gravel bed rivers: A kinematic model. Water Resources Research, 1994, 30, 1173-1185.	1.7	86
22	SPATIAL AND TEMPORAL DYNAMICS OF WOOD IN HEADWATER STREAMS OF THE PACIFIC NORTHWEST. Journal of the American Water Resources Association, 2005, 41, 899-919.	1.0	85
23	Displacement characteristics of coarse fluvial bed sediment. Journal of Geophysical Research F: Earth Surface, 2013, 118, 155-165.	1.0	82
24	Sensitivity of bed load transport in Harris Creek: Seasonal and spatial variation over a cobble-gravel bar. Water Resources Research, 2001, 37, 813-825.	1.7	76
25	SEDIMENT DISPERSION IN SALMON SPAWNING STREAMS: THE INFLUENCE OF FLOODS AND SALMON REDD CONSTRUCTION. Journal of the American Water Resources Association, 2004, 40, 1071-1086.	1.0	73
26	Identification of steps and pools from stream longitudinal profile data. Geomorphology, 2008, 102, 395-406.	1.1	70
27	The role of channel morphology on the mobility and dispersion of bed sediment in a small gravelâ€bed stream. Earth Surface Processes and Landforms, 2016, 41, 2191-2206.	1.2	67
28	Observations of desert flood bores. Earth Surface Processes and Landforms, 1990, 15, 481-485.	1.2	66
29	Morphodynamics of a Widthâ€Variable Gravel Bed Stream: New Insights on Poolâ€Riffle Formation From Physical Experiments. Journal of Geophysical Research F: Earth Surface, 2018, 123, 2735-2766.	1.0	59
30	Characteristics of Gravel Bars in Ephemeral Streams. Journal of Sedimentary Research, 2005, 75, 29-42.	0.8	56
31	Fluvial adjustment of the Lower Jordan River to a drop in the Dead Sea level. Geomorphology, 2002, 45, 21-33.	1.1	55
32	Bed load transport in an obstruction-formed pool in a forest, gravelbed stream. Geomorphology, 2004, 58, 203-221.	1.1	55
33	Effective discharge in small formerly glaciated mountain streams of British Columbia: Limitations and implications. Water Resources Research, 2014, 50, 4440-4458.	1.7	54
34	Temporal variability and memory in sediment transport in an experimental stepâ€pool channel. Water Resources Research, 2015, 51, 9325-9337.	1.7	53
35	The Origin of Fine Sediment Determines the Observations of Suspended Sediment Fluxes Under Unsteady Flow Conditions. Water Resources Research, 2018, 54, 5654-5669.	1.7	52
36	Glacially induced organization of channelâ€reach morphology in mountain streams. Journal of Geophysical Research, 2007, 112, .	3.3	50

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37	Impact of wastewater discharge on the channel morphology of ephemeral streams. <i>Earth Surface Processes and Landforms</i> , 2001, 26, 1285-1302.	1.2	48
38	Spatial and temporal variation of sediment yield in the landscape: Example of Huanghe (Yellow River). <i>Geophysical Research Letters</i> , 2008, 35, .	1.5	45
39	Abrupt drainage basin reorganization following a Pleistocene river capture. <i>Nature Communications</i> , 2018, 9, 3756.	5.8	45
40	A network model for prediction and diagnosis of sediment dynamics at the watershed scale. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	42
41	On how spatial variations of channel width influence river profile curvature. <i>Geophysical Research Letters</i> , 2016, 43, 6313-6323.	1.5	42
42	Use of Tracers in Fluvial Geomorphology. , 2005, , 397-423.		41
43	The transport of gravel in an ephemeral sandbed river. <i>Earth Surface Processes and Landforms</i> , 1999, 24, 623-640.	1.2	40
44	A conceptual model for the blooming behavior and persistence of the benthic matâ€forming diatom<i>Didymosphenia geminata</i> in oligotrophic streams. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	40
45	The Impact of Urbanization on Temporal Changes in Sediment Transport in a Gravel Bed Channel in Southern Ontario, Canada. <i>Water Resources Research</i> , 2017, 53, 8443-8458.	1.7	39
46	Experimental study on the stability and failure of individual step-pool. <i>Geomorphology</i> , 2018, 311, 51-62.	1.1	39
47	Complex mass wasting response of drainage basins to forest management in coastal British Columbia. <i>Geomorphology</i> , 2003, 49, 109-124.	1.1	37
48	Sediment residence time distributions: Theory and application from bed elevation measurements. <i>Journal of Geophysical Research F: Earth Surface</i> , 2013, 118, 2557-2567.	1.0	37
49	Videoâ€based gravel transport measurements with a flume mounted light table. <i>Earth Surface Processes and Landforms</i> , 2008, 33, 2285-2296.	1.2	36
50	Linking spatial patterns of bed surface texture, bed mobility, and channel hydraulics in a mountain stream to potential spawning substrate for small resident trout. <i>Geomorphology</i> , 2013, 197, 96-107.	1.1	33
51	A reduced-complexity model for sediment transport and step-pool morphology. <i>Earth Surface Dynamics</i> , 2016, 4, 549-566.	1.0	33
52	Simulation of individual particle movement in a gravel streambed. <i>Earth Surface Processes and Landforms</i> , 2002, 27, 81-97.	1.2	32
53	Spatial and temporal variation of inâ€reach suspended sediment dynamics along the mainstem of Changjiang (Yangtze River), China. <i>Water Resources Research</i> , 2010, 46, .	1.7	32
54	The effects of discharge and slope on hyporheic flow in stepâ€pool morphologies. <i>Hydrological Processes</i> , 2015, 29, 419-433.	1.1	32

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55	Wood dynamics in upland streams under different disturbance regimes. <i>Earth Surface Processes and Landforms</i> , 2013, 38, 1197-1209.	1.2	31
56	Reach-scale contributions of road-surface sediment to the Honna River, Haida Gwaii, BC. <i>Hydrological Processes</i> , 2016, 30, 3450-3465.	1.1	30
57	Simulated wood budgets in two mountain streams. <i>Geomorphology</i> , 2016, 259, 119-133.	1.1	29
58	Modeling wood dynamics, jam formation, and sediment storage in a gravel-bed stream. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	28
59	A lake sediment-based proxy of floods in the Rocky Mountain Front Ranges, Canada. <i>Journal of Paleolimnology</i> , 2011, 45, 137-149.	0.8	26
60	Influence of the sediment supply texture on morphological adjustments in gravel-bed rivers. <i>Water Resources Research</i> , 2014, 50, 8868-8890.	1.7	25
61	Experiment on temporal variation of bed load transport in response to changes in sediment supply in streams. <i>Water Resources Research</i> , 2017, 53, 763-778.	1.7	23
62	Influence of small- and large-scale variables on the chemical and isotopic compositions of urban rainwater, as illustrated by a case study in Ashdod, Israel. <i>Journal of Geophysical Research</i> , 2005, 110, .	3.3	22
63	Patterns, puzzles and people: implementing hydrologic synthesis. <i>Hydrological Processes</i> , 2011, 25, 3256-3266.	1.1	22
64	The relative stability of salmon redds and unspawned streambeds. <i>Water Resources Research</i> , 2015, 51, 6074-6092.	1.7	22
65	Variable hillslope-channel coupling and channel characteristics of forested mountain streams in glaciated landscapes. <i>Earth Surface Processes and Landforms</i> , 2019, 44, 736-751.	1.2	21
66	Using LiDAR to characterize logjams in lowland rivers. <i>Geomorphology</i> , 2015, 246, 531-541.	1.1	20
67	18 Sediment storage and transport in coarse bed streams: scale considerations. <i>Developments in Earth Surface Processes</i> , 2007, 11, 473-496.	2.8	19
68	What are the contemporary sources of sediment in the Mississippi River?. <i>Geophysical Research Letters</i> , 2017, 44, 8919-8924.	1.5	19
69	Experiment on morphological and hydraulic adjustments of step-pool unit to flow increase. <i>Earth Surface Processes and Landforms</i> , 2020, 45, 280-294.	1.2	19
70	Co-evolution of coarse grain structuring and bed roughness in response to episodic sediment supply in an experimental aggrading channel. <i>Earth Surface Processes and Landforms</i> , 2020, 45, 948-961.	1.2	19
71	Width variations control the development of grain structuring in steep step-pool dominated streams: insight from flume experiments. <i>Earth Surface Processes and Landforms</i> , 2020, 45, 1430-1440.	1.2	19
72	The Effect of Episodic Sediment Supply on Bedload Variability and Sediment Mobility. <i>Water Resources Research</i> , 2018, 54, 6319-6335.	1.7	18

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73	Experimental Insights Into the Threshold of Motion in Alluvial Channels: Sediment Supply and Streambed State. <i>Journal of Geophysical Research F: Earth Surface</i> , 2020, 125, e2020JF005736.	1.0	18
74	Intraseasonal to Interannual Analysis of Discharge and Suspended Sediment Concentration Time Series of the Upper Changjiang (Yangtze River). <i>Water Resources Research</i> , 2021, 57, e2020WR029457.	1.7	18
75	Estimating suspended sediment concentrations in areas with limited hydrological data using a mixed-effects model. <i>Hydrological Processes</i> , 2012, 26, 3678-3688.	1.1	17
76	Calculating the Explicit Probability of Entrainment Based on Inertial Acceleration Measurements. <i>Journal of Hydraulic Engineering</i> , 2017, 143, 04016097.	0.7	17
77	Morphometrics of China's Loess Plateau: The spatial legacy of tectonics, climate, and loess deposition history. <i>Geomorphology</i> , 2020, 354, 107043.	1.1	16
78	Does small-bodied salmon spawning activity enhance streambed mobility?. <i>Water Resources Research</i> , 2015, 51, 7467-7484.	1.7	15
79	Spatial and temporal patterns of sediment storage over 45 years in Carnation Creek, BC, a previously glaciated mountain catchment. <i>Earth Surface Processes and Landforms</i> , 2019, 44, 1584-1601.	1.2	15
80	Pool-Riffle Adjustment Due to Changes in Flow and Sediment Supply. <i>Water Resources Research</i> , 2021, 57, e2020WR028048.	1.7	15
81	Bar structure in an arid ephemeral stream. <i>Sedimentary Geology</i> , 2009, 221, 57-70.	1.0	14
82	Channel adjustments to a succession of water pulses in gravel bed rivers. <i>Water Resources Research</i> , 2015, 51, 8773-8790.	1.7	14
83	Fluvial response to changes in the magnitude and frequency of sediment supply in a 1-D model. <i>Earth Surface Dynamics</i> , 2018, 6, 1041-1057.	1.0	14
84	Sensitivity of stoichiometric ratios in the Mississippi River to hydrologic variability. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2014, 119, 1049-1062.	1.3	13
85	Pool-Riffle sedimentation and surface texture trends in a gravel bed stream. <i>Water Resources Research</i> , 2015, 51, 8704-8728.	1.7	13
86	Rough Correlations: Meta-Analysis of Roughness Measures in Gravel Bed Rivers. <i>Water Resources Research</i> , 2020, 56, e2020WR027079.	1.7	13
87	Back to Einstein: Burial-Induced Three-Range Diffusion in Fluvial Sediment Transport. <i>Geophysical Research Letters</i> , 2020, 47, e2020GL087440.	1.5	13
88	Quantifying sediment connectivity: Moving toward a holistic assessment through a mixed methods approach. <i>Earth Surface Processes and Landforms</i> , 2021, 46, 2501-2519.	1.2	13
89	Spatial organization of process domains in headwater drainage basins of a glaciated foothills region with complex longitudinal profiles. <i>Water Resources Research</i> , 2011, 47, .	1.7	12
90	Suspended sediment balance for the mainstem of Changjiang (Yangtze River) in the period 1964-1985. <i>Hydrological Processes</i> , 2011, 25, 2339-2353.	1.1	12

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91	Effects of glacial retreat on proglacial streams and riparian zones in the Coast and North Cascade Mountains. <i>Earth Surface Processes and Landforms</i> , 2014, 39, 351-365.	1.2	12
92	Response of In-stream Wood to Riparian Timber Harvesting: Field Observations and Long-Term Projections. <i>Water Resources Research</i> , 2020, 56, e2020WR027077.	1.7	11
93	Joint Stochastic Bedload Transport and Bed Elevation Model: Variance Regulation and Power Law Rests. <i>Journal of Geophysical Research F: Earth Surface</i> , 2020, 125, e2019JF005259.	1.0	11
94	Vertical exchange of coarse bedload in desert streams. <i>Geological Society Special Publication</i> , 1987, 35, 7-16.	0.8	10
95	Recent (1999-2003) Canadian research on contemporary processes of river erosion and sedimentation, and river mechanics. <i>Hydrological Processes</i> , 2005, 19, 265-283.	1.1	10
96	Scale-dependent interactions between wood and channel dynamics: Modeling jam formation and sediment storage in gravel-bed streams. <i>Journal of Geophysical Research F: Earth Surface</i> , 2013, 118, 2500-2508.	1.0	10
97	What controls the disequilibrium state of gravel-bed rivers?. <i>Earth Surface Processes and Landforms</i> , 2019, 44, 3020-3041.	1.2	10
98	The influence of channel morphology on bedload path lengths: Insights from a survival process model. <i>Earth Surface Processes and Landforms</i> , 2020, 45, 2982-2997.	1.2	10
99	Experimental study of sediment supply control on step formation, evolution, and stability. <i>Earth Surface Dynamics</i> , 2020, 8, 855-868.	1.0	10
100	Promise, performance and current limitations of a magnetic Bedload Movement Detector. <i>Earth Surface Processes and Landforms</i> , 2009, 34, 1022-1032.	1.2	9
101	Probabilistic Prediction and Forecast of Daily Suspended Sediment Concentration on the Upper Yangtze River. <i>Journal of Geophysical Research F: Earth Surface</i> , 2018, 123, 1982-2003.	1.0	9
102	Effect of stress history on sediment transport and channel adjustment in graded gravel-bed rivers. <i>Earth Surface Dynamics</i> , 2021, 9, 333-350.	1.0	9
103	On How Episodic Sediment Supply Influences the Evolution of Channel Morphology, Bedload Transport and Channel Stability in an Experimental Step-Pool Channel. <i>Water Resources Research</i> , 2021, 57, e2020WR029133.	1.7	9
104	The Influence of Riparian Vegetation on the Sinuosity and Lateral Stability of Meandering Channels. <i>Geophysical Research Letters</i> , 2022, 49, .	1.5	9
105	Convolutional neural networks for image-based sediment detection applied to a large terrestrial and airborne dataset. <i>Earth Surface Dynamics</i> , 2022, 10, 349-366.	1.0	9
106	Development and Application of a Large-Scale, Physically Based, Distributed Suspended Sediment Transport Model on the Fraser River Basin, British Columbia, Canada. <i>Journal of Geophysical Research F: Earth Surface</i> , 2018, 123, 2481-2508.	1.0	8
107	Locating suitable sites for the construction of underground dams using the subsurface flow simulation (SWAT model) and analytical network process (ANP) (case study: Daroongar watershed,) <i>Tj ETQq1 1 0.784314 rgBT /Overbo</i>	1.0	8
108	Does variable channel morphology lead to dynamic salmon habitat?. <i>Earth Surface Processes and Landforms</i> , 2020, 45, 295-311.	1.2	8

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109	Characterization of morphological units in a small, forested stream using close-range remotely piloted aircraft imagery. <i>Earth Surface Dynamics</i> , 2020, 8, 913-929.	1.0	8
110	Sampling variability in estimates of flow characteristics in coarse-bed channels: Effects of sample size. <i>Water Resources Research</i> , 2016, 52, 1899-1922.	1.7	7
111	Einstein conjecture and resting-time statistics in the bed-load transport of monodispersed particles. <i>Journal of Fluid Mechanics</i> , 2019, 876, 1077-1089.	1.4	7
112	A decadal-scale numerical model for wandering, cobble-bedded rivers subject to disturbance. <i>Earth Surface Processes and Landforms</i> , 2020, 45, 912-927.	1.2	7
113	Grain Size-Specific Engelund-Hansen Type Relation for Bed Material Load in Sand-Bed Rivers, With Application to the Mississippi River. <i>Water Resources Research</i> , 2021, 57, e2020WR027517.	1.7	7
114	Linkages between bedload displacements and topographic change. <i>Earth Surface Processes and Landforms</i> , 2021, 46, 3127-3142.	1.2	7
115	Bed Material and Bedload Movement in Two Ephemeral Streams. , 0, , 37-49.		6
116	Modelling changes in suspended sediment from forest road surfaces in a coastal watershed of British Columbia. <i>Hydrological Processes</i> , 2014, 28, 4914-4927.	1.1	6
117	Spatial linkages between geomorphic and hydraulic conditions and invertebrate drift characteristics in a small mountain stream. <i>Canadian Journal of Fisheries and Aquatic Sciences</i> , 2018, 75, 1823-1835.	0.7	6
118	Spatiotemporal Patterns of Fractional Suspended Sediment Dynamics in Small Watersheds. <i>Water Resources Research</i> , 2021, 57, e2021WR030851.	1.7	6
119	Modeling temporal trends in bedload transport in gravel-bed streams using hierarchical mixed-effects models. <i>Geomorphology</i> , 2014, 219, 260-269.	1.1	5
120	Drag Forces on Large Cylinders. <i>River Research and Applications</i> , 2016, 32, 411-417.	0.7	5
121	Bio-climate affects hillslope and fluvial sediment grain size along the Chilean Coastal Cordillera. <i>Geomorphology</i> , 2021, 384, 107700.	1.1	5
122	Poyang and Dongting Lakes, Yangtze River: tributary lakes blocked by main-stem aggradation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022, 119, .	3.3	5
123	Palestinian Water I: Resources, Allocation and Perception. <i>Geography Compass</i> , 2010, 4, 118-138.	1.5	4
124	Palestinian Water II: Climate Change and Land Use. <i>Geography Compass</i> , 2010, 4, 139-157.	1.5	4
125	FREQUENCY AND MAGNITUDE OF BEDLOAD TRANSPORT IN A MOUNTAIN RIVER. , 1996, 21, 433.		4
126	Principles of Bedload Transport of Non-cohesive Sediment in Open-Channels. <i>GeoPlanet: Earth and Planetary Sciences</i> , 2015, , 323-372.	0.2	4

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127	Step-Pool Channel Features. , 2020, , .		3
128	Geomorphic Controls on Sediment Mobility and Channel Stability of a Riffle-Pool Gravel Bed Channel. Lecture Notes in Civil Engineering, 2022, , 3-26.	0.3	3
129	REPLY TO DISCUSSION by John M. Faustini.. Journal of the American Water Resources Association, 2005, 41, 1241-1242.	1.0	2
130	Salmon as Biogeomorphic Agents in Gravel Bed Rivers: The Effect of Fish on Sediment Mobility and Spawning Habitat. Geophysical Monograph Series, 0, , 337-352.	0.1	2
131	Modelling the effects of climatic and hydrological regime changes on the sediment dynamics of the Fraser River Basin, British Columbia, Canada. Hydrological Processes, 2019, 33, 244-260.	1.1	2
132	Glacial landscape configuration influences channel response to flooding. Earth Surface Processes and Landforms, 2022, 47, 209-227.	1.2	2
133	Reach-scale morphodynamics: Insights from 20Âyears of observations and model simulations. Geomorphology, 2022, 413, 108375.	1.1	2
134	Fine particles in small steep-land streams: physical, ecological, and human connections. WIT Transactions on State-of-the-art in Science and Engineering, 2008, , 125-181.	0.0	1
135	Cycles of aggradation and degradation in gravel-bed rivers mediated by sediment storage and morphologic evolution. Geomorphology, 2021, 395, 108001.	1.1	1
136	Experimental insights into the effect of event sequencing and sediment input texture on stepâ€pool channel evolution. Earth Surface Processes and Landforms, 2022, 47, 569-581.	1.2	1
137	Asher P. Schick (1931â€2002). Eos, 2002, 83, 560.	0.1	0