

Eddy J Langendoen

List of Publications by Year in descending order

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Version: 2024-02-01

102
papers

2,979
citations

172457

29
h-index

175258

52
g-index

107
all docs

107
docs citations

107
times ranked

2073
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 1 | Depositional patterns of slowly plugging neck cutoffs from core analysis and estimates of bedload transport, White River, Arkansas. <i>Sedimentology</i> , 2022, 69, 568-591. | 3.1 | 5 |
| 2 | Rapid assessment of abrupt urban mega-gully and landslide events with structure-from-motion photogrammetric techniques validates link to water resources infrastructure failures in an urban periphery. <i>Natural Hazards and Earth System Sciences</i> , 2022, 22, 523-538. | 3.6 | 3 |
| 3 | Long term agroecosystem research experimental watershed network. <i>Hydrological Processes</i> , 2022, 36, . | 2.6 | 1 |
| 4 | Global analysis of cover management and support practice factors that control soil erosion and conservation. <i>International Soil and Water Conservation Research</i> , 2022, 10, 161-176. | 6.5 | 28 |
| 5 | Reach-scale morphodynamics: Insights from 20 years of observations and model simulations. <i>Geomorphology</i> , 2022, 413, 108375. | 2.6 | 2 |
| 6 | Long-term effects of dam operations for water supply to irrigation on downstream river reaches. The case of the Ribb River, Ethiopia. <i>International Journal of River Basin Management</i> , 2021, 19, 429-443. | 2.7 | 5 |
| 7 | The USDAâ€œARS Experimental Watershed Network: Evolution, Lessons Learned, Societal Benefits, and Moving Forward. <i>Water Resources Research</i> , 2021, 57, e2019WR026473. | 4.2 | 11 |
| 8 | Susceptibility to Gully Erosion: Applying Random Forest (RF) and Frequency Ratio (FR) Approaches to a Small Catchment in Ethiopia. <i>Water (Switzerland)</i> , 2021, 13, 216. | 2.7 | 31 |
| 9 | Relationship of point bar morphology to channel curvature and planform evolution. <i>Geomorphology</i> , 2021, 375, 107541. | 2.6 | 5 |
| 10 | Changes in Sediment Transport and Bed Topography in Response to Step-Up Flows in Laboratory Flume. <i>Journal of Hydraulic Engineering</i> , 2021, 147, 06021002. | 1.5 | 0 |
| 11 | Effect of Increasing Antecedent Flows on Equilibrium Bed-Load Transport Rates in a Laboratory Channel with a Sand and Gravel Bed Channel. <i>Journal of Hydraulic Engineering</i> , 2021, 147, 04021038. | 1.5 | 0 |
| 12 | Spatiotemporal Patterns of Fractional Suspended Sediment Dynamics in Small Watersheds. <i>Water Resources Research</i> , 2021, 57, e2021WR030851. | 4.2 | 6 |
| 13 | On the governing equations for horizontal and vertical coupling of one- and two-dimensional open channel flow models. <i>Journal of Hydraulic Research/De Recherches Hydrauliques</i> , 2020, 58, 709-724. | 1.7 | 1 |
| 14 | Structural Changes of Mobile Gravel Bed Surface for Increasing Flow Intensity. <i>Journal of Hydraulic Engineering</i> , 2020, 146, . | 1.5 | 2 |
| 15 | How does root biodegradation after plant felling change root reinforcement to soil?. <i>Plant and Soil</i> , 2020, 446, 211-227. | 3.7 | 30 |
| 16 | Sediment Transport and Bed-Form Characteristics for a Range of Step-Down Flows. <i>Journal of Hydraulic Engineering</i> , 2020, 146, 04019060. | 1.5 | 4 |
| 17 | Resilience of River Deltas in the Anthropocene. <i>Journal of Geophysical Research F: Earth Surface</i> , 2020, 125, e2019JF005201. | 2.8 | 48 |
| 18 | Bank stability and toe erosion model as a decision tool for gully bank stabilization in sub humid Ethiopian highlands. <i>Ecohydrology and Hydrobiology</i> , 2020, 20, 301-311. | 2.3 | 10 |

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|----|--|-----|-----------|
| 19 | A nine-year study on the benefits and risks of soil and water conservation practices in the humid highlands of Ethiopia: The Debre Mawi watershed. <i>Journal of Environmental Management</i> , 2020, 270, 110885. | 7.8 | 19 |
| 20 | Comparison of terrestrial lidar, SfM, and MBES resolution and accuracy for geomorphic analyses in physical systems that experience subaerial and subaqueous conditions. <i>Geomorphology</i> , 2020, 355, 107056. | 2.6 | 7 |
| 21 | Elements for the Successful Computer Simulation of Sediment Management Strategies for Reservoirs. <i>Water (Switzerland)</i> , 2020, 12, 714. | 2.7 | 2 |
| 22 | Connecting hillslope and runoff generation processes in the Ethiopian Highlands: The Ene-Chilala watershed. <i>Journal of Hydrology and Hydromechanics</i> , 2020, 68, 313-327. | 2.0 | 5 |
| 23 | Causes and Controlling Factors of Valley Bottom Gullies. <i>Land</i> , 2019, 8, 141. | 2.9 | 35 |
| 24 | Modelling Runoff and Sediment Loads in a Developing Coastal Watershed of the US-Mexico Border. <i>Water (Switzerland)</i> , 2019, 11, 1024. | 2.7 | 12 |
| 25 | Measuring ephemeral gully erosion rates and topographical thresholds in an urban watershed using unmanned aerial systems and structure from motion photogrammetric techniques. <i>Land Degradation and Development</i> , 2018, 29, 1896-1905. | 3.9 | 40 |
| 26 | Root reinforcement to soils provided by common Ethiopian highland plants for gully erosion control. <i>Ecohydrology</i> , 2018, 11, e1940. | 2.4 | 31 |
| 27 | Stream channel erosion in a rapidly urbanizing region of the US-Mexico border: documenting the importance of channel hardpoints with Structure-from-Motion photogrammetry. <i>Earth Surface Processes and Landforms</i> , 2018, 43, 1465-1477. | 2.5 | 21 |
| 28 | Gullies, a critical link in landscape soil loss: A case study in the subhumid highlands of Ethiopia. <i>Land Degradation and Development</i> , 2018, 29, 1222-1232. | 3.9 | 33 |
| 29 | Simulation and control of sediment transport due to dam removal. <i>Journal of Applied Water Engineering and Research</i> , 2018, 6, 95-108. | 1.8 | 29 |
| 30 | Morphodynamic Trends of the Ribb River, Ethiopia, Prior to Dam Construction. <i>Geosciences (Switzerland)</i> , 2018, 8, 255. | 2.2 | 16 |
| 31 | Assessment of Practices for Controlling Shallow Valley-Bottom Gullies in the Sub-Humid Ethiopian Highlands. <i>Water (Switzerland)</i> , 2018, 10, 389. | 2.7 | 9 |
| 32 | Fluvial Geomorphology, Root Distribution, and Tensile Strength of the Invasive Giant Reed, <i>Arundo Donax</i> and Its Role on Stream Bank Stability in the Santa Clara River, Southern California. <i>Geosciences (Switzerland)</i> , 2018, 8, 304. | 2.2 | 16 |
| 33 | Sampling Interval Analysis and CDF Generation for Grain-Scale Gravel Bed Topography. <i>Journal of Hydraulic Engineering</i> , 2018, 144, 04018065. | 1.5 | 1 |
| 34 | Modelling Ephemeral Gully Erosion from Unpaved Urban Roads: Equifinality and Implications for Scenario Analysis. <i>Geosciences (Switzerland)</i> , 2018, 8, 137. | 2.2 | 13 |
| 35 | Evaluating erosion control practices in an actively gullying watershed in the highlands of Ethiopia. <i>Earth Surface Processes and Landforms</i> , 2018, 43, 2835-2843. | 2.5 | 23 |
| 36 | Prediction of Sand Transport over Immobile Gravel from Supply-Limited to Capacity Conditions. <i>Journal of Hydraulic Engineering</i> , 2017, 143, 04017010. | 1.5 | 8 |

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|----|---|-----|-----------|
| 37 | Understanding mass fluvial erosion along a bank profile: using PEEP technology for quantifying retreat lengths and identifying event timing. <i>Earth Surface Processes and Landforms</i> , 2017, 42, 1717-1732. | 2.5 | 23 |
| 38 | Evaluating a process-based model for use in streambank stabilization: insights on the Bank Stability and Toe Erosion Model (BSTEM). <i>Earth Surface Processes and Landforms</i> , 2017, 42, 191-213. | 2.5 | 71 |
| 39 | Gully Head Retreat in the Sub-Humid Ethiopian Highlands: The Ene-Chilala Catchment. <i>Land Degradation and Development</i> , 2017, 28, 1579-1588. | 3.9 | 33 |
| 40 | Length scales and statistical characteristics of outer bank roughness for large elongate meander bends: The influence of bank material properties, floodplain vegetation and flow inundation. <i>Earth Surface Processes and Landforms</i> , 2017, 42, 2024-2037. | 2.5 | 40 |
| 41 | Examining the Generality of \bar{V}_0/TKE for Gravel and Cobble Beds with Sand Fill. <i>Journal of Hydraulic Engineering</i> , 2017, 143, 06016028. | 1.5 | 0 |
| 42 | Effect of Sediment Transport Boundary Conditions on the Numerical Modeling of Bed Morphodynamics. <i>Journal of Hydraulic Engineering</i> , 2017, 143, . | 1.5 | 15 |
| 43 | Uncertainty and sensitivity in a bank stability model: implications for estimating phosphorus loading. <i>Earth Surface Processes and Landforms</i> , 2017, 42, 612-623. | 2.5 | 11 |
| 44 | Improving watershed management practices in humid regions. <i>Hydrological Processes</i> , 2017, 31, 3294-3301. | 2.6 | 23 |
| 45 | Morphological dynamics of gully systems in the subhumid Ethiopian Highlands: the Debre Mawi watershed. <i>Soil</i> , 2016, 2, 443-458. | 4.9 | 55 |
| 46 | A Biophysical and Economic Assessment of a Community-based Rehabilitated Gully in the Ethiopian Highlands. <i>Land Degradation and Development</i> , 2016, 27, 270-280. | 3.9 | 56 |
| 47 | Three-dimensional flow structure and bed morphology in large elongate meander loops with different outer bank roughness characteristics. <i>Water Resources Research</i> , 2016, 52, 9621-9641. | 4.2 | 60 |
| 48 | Bed Topography and Sand Transport Responses to a Step Change in Discharge and Water Depth. <i>Journal of Hydraulic Engineering</i> , 2016, 142, 04016040. | 1.5 | 5 |
| 49 | Improved numerical modeling of morphodynamics of rivers with steep banks. <i>Advances in Water Resources</i> , 2016, 93, 4-14. | 3.8 | 62 |
| 50 | Spatial variability in bank resistance to erosion on a large meandering, mixed bedrock-alluvial river. <i>Geomorphology</i> , 2016, 252, 80-97. | 2.6 | 108 |
| 51 | Erosion of Sand from a Gravel Bed. <i>Journal of Hydraulic Engineering</i> , 2016, 142, . | 1.5 | 12 |
| 52 | Responses of Experimental River Corridors to Engineered Log Jams. , 2015, , . | | 0 |
| 53 | Improving efficacy of landscape interventions in the (sub) humid Ethiopian highlands by improved understanding of runoff processes. <i>Frontiers in Earth Science</i> , 2015, 3, . | 1.8 | 18 |
| 54 | Spatially Distributed Sheet, Rill, and Ephemeral Gully Erosion. <i>Journal of Hydrologic Engineering - ASCE</i> , 2015, 20, . | 1.9 | 21 |

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| 55 | Flow, turbulence, and drag associated with engineered log jams in a fixed-bed experimental channel. <i>Geomorphology</i> , 2015, 248, 172-184. | 2.6 | 25 |
| 56 | USDA-ARS National Sedimentation Laboratory: A Historic Perspective. <i>Journal of Water Resource and Protection</i> , 2015, 07, 228-246. | 0.8 | 0 |
| 57 | Modification of meander migration by bank failures. <i>Journal of Geophysical Research F: Earth Surface</i> , 2014, 119, 1026-1042. | 2.8 | 63 |
| 58 | Bank Stability Analysis for Fluvial Erosion and Mass Failure. , 2014, , . | | 4 |
| 59 | Stability Analysis of Semicohesive Streambanks with <i>CONCEPTS</i> : Coupling Field and Laboratory Investigations to Quantify the Onset of Fluvial Erosion and Mass Failure. <i>Journal of Hydraulic Engineering</i> , 2014, 140, . | 1.5 | 36 |
| 60 | Turbulent Flow and Sand Transport over a Cobble Bed in a Laboratory Flume. <i>Journal of Hydraulic Engineering</i> , 2014, 140, . | 1.5 | 16 |
| 61 | A note on acoustic measurements of turbulence, suspended sediment, and bed forms in mobile-bed experiments. <i>Journal of Hydro-Environment Research</i> , 2014, 8, 164-173. | 2.2 | 5 |
| 62 | Physical-scale model designs for engineered log jams in rivers. <i>Journal of Hydro-Environment Research</i> , 2014, 8, 115-128. | 2.2 | 44 |
| 63 | Predicting bed load transport of sand and gravel on Goodwin Creek. <i>Journal of Hydro-Environment Research</i> , 2014, 8, 153-163. | 2.2 | 4 |
| 64 | Guest Editors' note. <i>Journal of Hydro-Environment Research</i> , 2014, 8, 75-76. | 2.2 | 0 |
| 65 | Application of the CONCEPTS Channel Evolution Model in Stream Restoration Strategies. <i>Geophysical Monograph Series</i> , 2013, , 487-502. | 0.1 | 5 |
| 66 | Sand Transport over an Immobile Gravel Substrate. <i>Journal of Hydraulic Engineering</i> , 2013, 139, 167-176. | 1.5 | 33 |
| 67 | Seepage-Induced Streambank Erosion and Instability: In Situ Constant-Head Experiments. <i>Journal of Hydrologic Engineering - ASCE</i> , 2013, 18, 1200-1210. | 1.9 | 50 |
| 68 | Evaluation of the Conservational Channel Evolution and Pollutant Transport System (CONCEPTS) Applied to Composite Streambanks in the Ozark Highlands Ecoregion. , 2013, , . | | 1 |
| 69 | A simplified 2D model for meander migration with physically-based bank evolution. <i>Geomorphology</i> , 2012, 163-164, 10-25. | 2.6 | 117 |
| 70 | The effects of floodplain soil heterogeneity on meander planform shape. <i>Water Resources Research</i> , 2012, 48, . | 4.2 | 69 |
| 71 | Effects of sand addition on turbulent flow over an immobile gravel bed. <i>Journal of Geophysical Research</i> , 2011, 116, n/a-n/a. | 3.3 | 20 |
| 72 | Validity of Uniform Flow Hypothesis in One-Dimensional Morphodynamic Models. <i>Journal of Hydraulic Engineering</i> , 2011, 137, 183-195. | 1.5 | 16 |

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|----|--|-----|-----------|
| 73 | Earthen Embankment Breaching. <i>Journal of Hydraulic Engineering</i> , 2011, 137, 1549-1564. | 1.5 | 170 |
| 74 | Cyclical Fluvial Response Caused by Rechannelization. , 2011, , . | | 0 |
| 75 | Streambank Erosion Assessment in Southeastern Plains Ecoregion Channels Using In Situ Monitoring and Submerged Jet Testing. , 2010, , . | | 0 |
| 76 | Numerically predicting seepage gradient forces and erosion: Sensitivity to soil hydraulic properties. <i>Journal of Hydrology</i> , 2010, 389, 354-362. | 5.4 | 28 |
| 77 | Modeling the Evolution of Incised Streams. III: Model Application. <i>Journal of Hydraulic Engineering</i> , 2009, 135, 476-486. | 1.5 | 25 |
| 78 | Closure to "Modeling the Evolution of Incised Streams. II: Streambank Erosion" by Eddy J. Langendoen and Andrew Simon. <i>Journal of Hydraulic Engineering</i> , 2009, 135, 1107-1108. | 1.5 | 6 |
| 79 | Assessing the impact of riparian processes on streambank stability. <i>Ecohydrology</i> , 2009, 2, 360-369. | 2.4 | 35 |
| 80 | The National Sedimentation Laboratory: 50 years of soil and water research in a changing agricultural environment. <i>Ecohydrology</i> , 2009, 2, 227-234. | 2.4 | 4 |
| 81 | Quantifying Reductions of Mass Failure Frequency and Sediment Loadings From Streambanks Using Toe Protection and Other Means: Lake Tahoe, United States. <i>Journal of the American Water Resources Association</i> , 2009, 45, 170-186. | 2.4 | 45 |
| 82 | Test of a Method to Calculate Near-Bank Velocity and Boundary Shear Stress. <i>Journal of Hydraulic Engineering</i> , 2009, 135, 588-601. | 1.5 | 54 |
| 83 | Modeling the Evolution of Incised Streams: I. Model Formulation and Validation of Flow and Streambed Evolution Components. <i>Journal of Hydraulic Engineering</i> , 2008, 134, 749-762. | 1.5 | 74 |
| 84 | Comparison of Empirical and Analytical Physical Assessment Approaches for Stream Restoration: A Case Study on Abrams Creek, Great Smoky Mountains National Park, Tennessee. , 2008, , . | | 0 |
| 85 | Modeling the Evolution of Incised Streams. II: Streambank Erosion. <i>Journal of Hydraulic Engineering</i> , 2008, 134, 905-915. | 1.5 | 125 |
| 86 | Quantifying Existing and Potential Reductions in Sediment Loads from Streambanks. , 2008, , . | | 0 |
| 87 | Enhancements of a Bank-Stability and Toe-Erosion Model and the Addition of Improved Mechanical Root-Reinforcement Algorithms. , 2007, , 1. | | 3 |
| 88 | Measuring streambank erosion due to ground water seepage: correlation to bank pore water pressure, precipitation and stream stage. <i>Earth Surface Processes and Landforms</i> , 2007, 32, 1558-1573. | 2.5 | 198 |
| 89 | Modeling Pre- and Post-Dam Removal Sediment Dynamics: The Kalamazoo River, Michigan. <i>Journal of the American Water Resources Association</i> , 2007, 43, 773-785. | 2.4 | 22 |
| 90 | A Deterministic Bank-Stability and Toe-Erosion Model for Stream Restoration. , 2006, , 1. | | 1 |

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| 91 | CONCEPTS: A Process-Based Computer Model of Instream and Riparian Processes. , 2006, , 1. | | 3 |
| 92 | ADAPTING EXISTING MODELS TO EXAMINE EFFECTS OF AGRICULTURAL CONSERVATION PROGRAMS ON STREAM HABITAT QUALITY. Journal of the American Water Resources Association, 2006, 42, 25-33. | 2.4 | 22 |
| 93 | INFLUENCE OF TWO WOODY RIPARIAN SPECIES ON CRITICAL CONDITIONS FOR STREAMBANK STABILITY: UPPER TRUCKEE RIVER, CALIFORNIA. Journal of the American Water Resources Association, 2006, 42, 99-113. | 2.4 | 71 |
| 94 | Reply To Discussionby Xixi Wang, Assefa M. Melesse, Steve W. Kelsch, and Wanhong Yang¹. Journal of the American Water Resources Association, 2006, 42, 1715-1716. | 2.4 | 0 |
| 95 | Modeling the Impact of Riparian Buffer Systems on Bank Stability of an Incised Stream. , 2005, , 1. | | 7 |
| 96 | Numerical Simulation of Post Dam Removal Sediment Dynamics along the Kalamazoo River Between Otsego and Plainwell, Michigan. , 2005, , 1. | | 7 |
| 97 | EROSION PROCESSES IN GULLIES MODIFIED BY ESTABLISHING GRASS HEDGES. Transactions of the American Society of Agricultural Engineers, 2004, 47, 1561-1571. | 0.9 | 24 |
| 98 | Modeling Channel Instabilities and Mitigation Strategies in Eastern Nebraska. , 2000, , 1. | | 5 |
| 99 | Bank and near-bank processes in an incised channel. Geomorphology, 2000, 35, 193-217. | 2.6 | 387 |
| 100 | Flow patterns and exchange of matter in tidal harbours. Journal of Hydraulic Research/De Recherches Hydrauliques, 1994, 32, 259-270. | 1.7 | 19 |
| 101 | Alteration of the Fogera Plain flood regime due to Ribb Dam construction, Upper Blue Nile Basin, Ethiopia. Journal of Applied Water Engineering and Research, 0, , 1-22. | 1.8 | 2 |
| 102 | Evaluating sediment transport capacity relationships for use in ephemeral gully erosion models. Proceedings of the International Association of Hydrological Sciences, 0, 367, 128-133. | 1.0 | 3 |