Simon Marius Mudd
Professor of Earth Surface Processes

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Github: Username simon-m-mudd

Appointments

2016– **Professor** of Earth Surface Processes: School of GeoSciences, University of Edinburgh, UK
2014–2016 **Reader** in Landscape Dynamics: School of GeoSciences, University of Edinburgh, UK
2013–2014 **Senior Lecturer** in Landscape Dynamics: School of GeoSciences, University of Edinburgh, UK
2007–2013 **Lecturer** in Landscape Dynamics: School of GeoSciences, University of Edinburgh, UK
2006–2007 **Research Associate**: Department of Earth and Environmental Sciences, Vanderbilt University, USA

Education

2006 **PhD** in *Environmental Engineering*, Vanderbilt University, Nashville TN, USA
2001 **MA** in *Geological Sciences*, University of California, Santa Barbara, CA, USA
1999 **BA** in *Geology* (minor in German) University of California, Berkeley, CA, USA

Awards and Fellowships

2020 **Fellow of the Royal Society of Edinburgh**
2014 **Gordon Warwick Medal** from the British Society for Geomorphology (for excellence in geomorphic research by someone within 15 years of PhD)
2013 **Arne Richter Award** for Outstanding Young Scientists of the European Geosciences Union
2011 **Penck Lecture**, EGU general assembly
2012– Nominated for Edinburgh University Student Association best course award (Earth Surface Systems and Eroding Landscapes in 2012 and 2013), Teaching Award (2012), Best feedback (2017)
2005 **Dissertation Enhancement Grant** awarded by Vanderbilt University Graduate School
2001 **George Tunnel Memorial Fellowship** awarded by UCSB department of Geological Sciences
1999–2000 University of California **Graduate Opportunity Fellowship**

Leadership

2018–2019 **Chair**, British Society for Geomorphology (In addition, was deputy and junior deputy chair in previous two years)
2016–2020 **Director**, Edinburgh E3/E4 NERC Doctoral Training Partnership
2016– **Convener**, Land Surface Dynamics Research Group at the University of Edinburgh School of GeoSciences
2014–2016 **Deputy Director**, Edinburgh E3 NERC Doctoral Training Partnership

2014 **Chair**, Digital Communications and Web Strategy Working Group, School of GeoSciences, University of Edinburgh

2011–2013 **Coordinator of PhD recruitment**, Global Change Research Institute, School of GeoSciences, University of Edinburgh

External Funding

As PI

2019-2029 E4 - Edinburgh Earth Ecology and Environment DTP (NE/S007407/1; pending)
Funding Agency: *NERC*
Award: **£7,874,280** based on 18 studentships for 5 years at £87k per student. Note that grantholder changed to Richard Essery after I finished my term as DTP head in 2020, FEC to Edinburgh
P.I. Simon M. Mudd

2017-2023 Edinburgh NPIF studentships (NE/R009228/1)
Funding Agency: *NERC*
Award: **£496,522** FEC to Edinburgh
P.I. Simon M. Mudd (note these are only available to NERC DTP holders so only partially competitive)

2019-2021 Pilot study "local topography"
Funding Agency: *NAGRA*
Award: **£105,203** FEC to Edinburgh
P.I. Simon M. Mudd

2016-2017 Software for quantifying shallow landslide hazards to transportation infrastructure under changing climate and forest management (NE/N01300X/1)
Funding Agency: *NERC*
Award: **£126,795** FEC to Edinburgh
P.I. Simon M. Mudd

2014–2015 Leverhulme Trust International Academic Fellowship (IAF-2014-009)
Funding Agency: *Leverhulme Trust*
Award: **£24,064** FEC to Edinburgh
P.I.: Simon M. Mudd

2013–2015 Constraining the topographic signature of erosion rates and processes using high resolution topography (W911NF-13-1-0478)
Funding Agency: *US Army Research Office*
Award: **£214,572** to Edinburgh
P.I.: Simon M. Mudd

2012–2015 Using high resolution topographic data to detect regions of high seismic hazard from space
Funding Agency: *Carnegie Trust grants for aid in research*
Award: **£39,091**
P.I. Simon M. Mudd

2012–2015 Predicting the distribution of major debris flow hazard using coupled 10Be erosion records and 1m resolution digital topography (NE/J012750/1)
Funding Agency: *NERC*
Award: **£64,959** FEC to Edinburgh
P.I.: Simon M. Mudd

2012–2013 Tectonic and climatic control of hillslope lengths in granitic landscapes
Funding Agency: *Carnegie Trust grants for aid in research*
Award: **£2,200** FEC to Edinburgh
P.I.: Simon M. Mudd

2009–2010 A coupled geomorphic and geochemical model for testing the dominant controls on chemical weathering rates in eroding landscapes (NE/H001174/1)

Funding agency: *NERC*
Award: **£70,478** FEC
P.I.: Simon M. Mudd

2009–2010 Investigating the coupled response of rivers and hillslopes to tectonic perturbation
Funding Agency: *Carnegie Trust grants for aid in research*
Award: **£2,430**
P.I.: Simon M. Mudd

As Co–PI

2019-2024 Ixchel: Building understanding of the physical, cultural and socio-economic drivers of risk for strengthening resilience in the Guatemalan cordillera (NE/T010517/1)
Funding Agency: *NERC*
Award: **£2,794,572**
P.I.: E. Calder, Co.I. (of > 20): Simon M. Mudd

2019-2024 GCRF Urban Disaster Risk Hub (NE/S009000/1)
Funding Agency: *NERC*
Award: **£17,657,279**
P.I.: J. McCloskey, Co.I. (of > 20): Simon M. Mudd

2018-2022 Future proofing strategies FOr RESilient transport networks against Extreme Events (FORESEE) Funding Agency: *EU H2020*
Award: **£76,779** to Edinburgh
Co.I. (of >20): Simon M. Mudd (Edinburgh lead. Project lead is Technalia)

2016-2020 Horizon 2020 Training Network: understanding subduction zone topography through modelling of coupled shallow and deep processes Funding Agency: *ERC*
Award: **€280,000** to Edinburgh
Co.I. (of >20): Simon M. Mudd (lead R.O. Potsdam University, local P.I.: Hugh Sinclair)

2019-2019 Space-based Services to support resilient and sustainable Critical Infrastructure - Feasibility study Funding Agency: *ESA*
Award: **£34,080** to Edinburgh
Co.I. (of 1): Simon M. Mudd (Edinburgh lead. Project lead is Telespazio Vega)

2016-2017 Dynamic Flood Topographies in the Terai, Nepal; community perception and resilience (NE/N007654/1)
Funding Agency: *NERC*
Award: **£156,448**
P.I.: Mikael Attal, Co.I. (of 8): Simon M. Mudd

2015-2016 Volcano-hydrologic hazards associated with the April 2015 eruption of Calbuco volcano, Chile (NE/N007654/1)
Funding Agency: *NERC*
Award: £51,636 FEC to Leeds; **£27,103** to Edinburgh
Co.I. (of 3): Simon M. Mudd

2012–2015 Climate History Controls Future Landslide Hazard (NE/J009970/1)
Funding Agency: *NERC*
Award: **£109,154** FEC to Edinburgh
P.I.: Tristam Hales (Cardiff University) Co.I. (of 1): Simon M. Mudd

2012–2013 Can long-term landscape change predict the impact of extreme events? A test from the flashfloods of the upper Indus Valley, Ladakh, 6th August 2010 (NE/I017747/1)
Funding Agency: *NERC*
Award: **£49,072** FEC
P.I.: Hugh Sinclair, Co.I. (of 1): Simon M. Mudd

Editorial Activities

2013– **Associate Editor**, Earth Surface Dynamics

2008–2013 **Associate Editor**, Journal of Geophysical Research-Earth Surface

2009–2011 **Editorial Board**, Geology

Service

2017– **Board member of the PhD programme**, Department of Geosciences, University of Padova, Italy

2006– **Proposal Peer Reviewer**: The Natural Environment Research Council, U.K.; The National Science Foundation (NSF); European Research Council (ERC); Israel Science Foundation (ISF); Carnegie Foundation for Grants in Aid of Research; British Society for Geomorphology; American Chemical Society; Austrian National Research Agency (FWF), French National Research Agency (ANR); Swiss National Research Agency; German National Research Agency (DFG), Research Foundation Flanders (FWO); Fonds de la Recherche Scientifique, Belgium (FNRS); U.S. Army Research Office (ARO); US-Israel Binational Science Foundation

2004– **Journal Peer Reviewer**: Advances in Water Resources; American Journal of Science; AGU books; Basin Research; Earth and Planetary Science Letters; Earth's Future; Earth Surface Processes and Landforms; Ecology; Estuarine, Coastal and Shelf Science; Estuaries and Coasts; Earth Surface Dynamics; Geology; Geomorphology; Geophysical Research Letters; Global Biogeochemical Cycles; Geochimica et Cosmochimica Acta; Geoderma, Journal of Geophysical Research-Earth Surface; Journal of Geophysical Research-Biogeosciences; Journal of Hydrology; Limnology and Oceanography; Marine Biology; Nature; Nature Communications; Nature Geoscience; PLoS; PNAS; Pedosphere; Progress in Physical Geography; Science; Sedimentology; Water Resources Research

2014–2017 **External examiner**: University of Manchester, Masters in Environmental Modelling, Monitoring and Reconstruction

2016 **Convener**, EGU general assembly: HS10.1/GM12.7/OS2.6 Estuarine processes

2015 **Convener**, EGU general assembly: HS10.1/GM8.3/OS2.5 Estuarine processes

2014 **Convener**, EGU general assembly: HS10.1/GM8.4 Estuarine processes

2013 **Convener**, EGU general assembly: HS10.3 Estuarine processes

2012 **Convener**, 29th IUGG Conference on Mathematical Geophysics: Earth Systems Dynamics session

2012 **Convener**, EGU general assembly: HS10.2/GM8.2 Estuarine processes

2011 **Convener**, fall AGU Session: Coastal Geomorphology and Morphodynamics

2010– **Member**, NERC peer review college

2009 **Convener**, fall AGU Session: 'Sediment Supply, Storage, and Delivery as Controlled by Hillslope Channel Coupling'

2009 **Co-Convener**, EGU general meeting session: 'Novel approaches to quantifying the timing and rate of landscape change'

2008 **Delegate**: Meeting of Young Researchers in Earth Sciences III held in New Orleans, LA

2007–2014 **Member, Global Change Research Group Committee**: School of GeoSciences, University of Edinburgh

2007– **Director of Studies then personal tutor**: For Geology and Physical Geography program, School of GeoSciences, University of Edinburgh

2007 **Convener**, fall AGU Session: 'Controls on Geochemical and Biogeochemical Processes in the Critical Zone'

2005–2007 **Seminar Series Committee Member**: Vanderbilt University Department of Earth and Environmental Sciences

2004–2006 **Graduate Student Representative**: Vanderbilt University Department of Earth and Environmental Sciences

2003 **Graduate Student Representative**: Florida State University department of Geological Sci-

ences

Invited Talks

2020 **Landscapes Live**, International geomorphology seminar series Video
2019 **School of Earth Sciences, University of Bristol**, Department seminar
2018 **Symposium on Coastal Resources and Environment (CORE), Hohai University, China**, Invited talk
GFZ–Potsdam, Germany, Section 4.7 - Earth Surface Process Modelling, Section Seminar
GFZ–Potsdam, Germany, Section 5.1 - Geomorphology, Section Seminar
2017 **CNRS Toulouse, France**, Department Seminar
Department of Geography, Durham University, Department Seminar
2016 **Erosion and sedimentation processes in the high mountains session, EGU general assembly**, Solicited talk
Frontiers in Geomorphometry Session, EGU general assembly, Solicited PICO
Department of Geosciences, University of Padova, Department Seminar
Department of Geosciences, University of Padova, Department Seminar
2015 **Department of Land, Environment, Agriculture and Forestry, University of Padova**, Department Seminar
2014 **Soil carbon session, EGU general assembly**, Invited talk
Institute of Earth Sciences, University of Lausanne, Department Seminar
Department of Geosciences, University of Padova, Department Seminar
Geochemistry of the Earth Surface-GES10, Paris, Keynote Talk
Gordon Warwick Medal Talk, British Society for Geomorphology, Keynote Talk
2013 **Keynote Lecture for Arne Richter Award**, EGU general assembly
Department of Earth Science and Engineering, Imperial College London, Department Seminar
School of Geographical Sciences, University of Bristol, Department seminar
2012 **Soil carbon session, EGU general assembly**, Invited talk
Modelling and geochemistry session, Goldschmidt conference, Montreal Canada, Invited talk
Institute of Geology and Mineralogy, University of Cologne, Department Seminar
School of Geographical and Earth Sciences, University of Glasgow, Department Seminar
2011 **Penck Keynote Lecture** (given to outstanding young geomorphologist), EGU general assembly
Department of Geography and Environmental Engineering, Johns Hopkins University, Department seminar
European Surface Processes Meeting, Loch Lomond, Scotland, Invited talk
LUCIFS soil carbon workshop, Bern Switzerland, Invited talk
DEFRA soil erosion workshop, Exeter UK, Invited talk
2010 **Department of Geography and Geosciences, University of St. Andrews**, Department seminar
University of Rennes, Department of Geosciences, Department seminar
2009 **INSTAAR/Geography, University of Colorado**, Department seminar
Department of Geography, Durham University, Department seminar
Department of Earth Sciences, Oxford University, Department seminar
School of Earth and Ocean Sciences, Cardiff University, Department seminar
2008 **SAGES annual meeting, Aberfoyle, Scotland**, Invited talk
2007 **University of Exeter, Department of Geography**, Department seminar
2006 **Department of Environmental Science, Policy, and Management, University of California, Berkeley**, Department seminar

Department of Earth Sciences, Boston University, Department seminar
Department of Geology and Geophysics, University of Wisconsin at Madison, Department seminar

PhD Students Supervised as primary supervisor

2020– **Anya Towers**, NERC Doctoral Training Partnership studentship
2020– **Qiuyang Chen**
2019– **Marina Ruiz Sánchez-Oro**, NERC Doctoral Training Partnership studentship
2015– **Louis Kinnear**, NERC Doctoral Training Partnership studentship
2015– **Noorzalianee Ghazali**, Malaysian Government Studentship
2016–2020 **Guillaume Goodwin**, NERC Doctoral Training Partnership studentship (Now Postdoc at University of Padova)
2013–2017 **Fiona Clubb**, Carnegie Caledonian Studentship (Now lecturer at Durham University)
2013–2016 **Stuart Grieve**, NERC Tied PhD studentship (Now lecturer at Queen Mary University London)
2011–2016 **David Milodowski**, NERC PhD studentship (Now postdoc with Mat Williams at the University of Edinburgh)
2018–2012 **Martin Hurst**, NERC PhD studentship (Now lecturer at University of Glasgow)
2010–2011 **Lynsey Callaghan**, NERC PhD studentship (Now working in environmental consultancy)

Post Doctoral and Research Supervision

2020–2020 **Marina Ruiz Sánchez-Oro** (completing PhD)
2020–2020 **Guillaume Goodwin** (Postdoc at University of Padova)
2019–2020 **Emma Graf** (completing PhD)
2019–2020 **Boris Gailleton** (Postdoc at GFZ)
2016–2017 **Stuart Grieve** now lecturer at QMUL
2014–2016 **Marie-Alice Harel** now full–time illustrator
2012–2013 **Daniel Hobley** (Lead supervisor: Hugh Sinclair) now lecturer at Cardiff University

Courses Taught

2015–2016 Numeracy, Modelling and Data Management (PhD students)
2014–2016 Frontiers in Geosciences (seminar series for PhD students)
2013–2016 Environmental Modelling and Prediction (1st year undergraduate; course organizer)
2010–2012 Geomorphology at the University of Edinburgh (2nd year undergraduate)
2009– Eroding Landscapes at the University of Edinburgh (3rd/4th year undergraduate). Nominated for an Edinburgh University Students Association Teaching award 'best course' in 2012
2008–2013 Tectonic Geomorphology at the University of Edinburgh (4th year undergraduate)
2008– Spain Field course at the University of Edinburgh (3rd year undergraduate; Course Organizer from 2010)
2008–2014 Earth Surface Systems at the University of Edinburgh (1st year undergraduate; Course Organizer from 2009). Nominated for an Edinburgh University Students Association Teaching award 'best course' in 2014
2007–2011 Northwest Scotland Field course at the University of Edinburgh (3rd year undergraduate)
2007– Field teaching on day trips for sedimentology (2nd year undergraduate, 1 day) and Earth Materials (1st year undergraduate, 1 day)
2006 Geomorphology at Vanderbilt University (with David Furbish; undergraduate and postgraduate)

Software

My group has released several software packages to the community, including:

Tools

Github The LSDTopoTools software package for topographic analysis has a number of repositories located on the Github LSDTopoTools page
A variety of scripts for both computation and visualization can be found on my github page: username simon-marius-mudd

Zenodo My collaborators and I have released a number of packages via Zenodo within the LSDTopoTools software package
Mudd, S. M., Clubb, F. J., Gailleton, B., Grieve, S. W. D., Valters, D. A., and Hurst, M. D. (2019, February 8). LSDTopoTools Documentation (Version v2.0). *Zenodo*.
http://doi.org/10.5281/zenodo.2560224
Mudd, S. M., Clubb, F. J., Gailleton, B., Valters, D. A., Hurst, M. D., and Grieve, S. W. D. (2019, February 8). LSDMappingTools (Version v0.1). *Zenodo*.
http://doi.org/10.5281/zenodo.2560166
Goodwin, G. C. H., Mudd, S. M., and Clubb, F. J. (2017, October 10). LSDtopotools Marsh Platform Identification Tool (Version v0.2). *Zenodo*.
http://doi.org/10.5281/zenodo.1007788
Mudd, S. M., Jenkinson, J., Valters, D. A., and Clubb, F. J. (2017, September 26). MuddPILE the Parsimonious Integrated Landscape Evolution Model (Version v0.08). *Zenodo*.
http://doi.org/10.5281/zenodo.997407
Mudd, S. M., Clubb, F. J., Gailleton, B., Hurst, M. D., Milodowski, D. T., and Valters, D. A. (2018, June 18). The LSDTopoTools Chi Mapping Package (Version 1.11). *Zenodo*.
http://doi.org/10.5281/zenodo.1291889
Clubb, F. J., Mudd, Simon M., Milodowski, D. T., and Grieve, S. W. D. (2017, July 8). LSDDrainageDensity v1.0 (Version v1.0). *Zenodo*.
http://doi.org/10.5281/zenodo.824423
Clubb, F. J., Mudd, Simon M., Milodowski, D. T., Grieve, S. W. D., and Hurst, M. D. (2017, July 7). LSDChannelExtraction v 1.0 (Version v1.0). *Zenodo*.
http://doi.org/10.5281/zenodo.824198
Clubb, F. J., Mudd, S. M., Grieve, S. W. D., Milodowski, D. T., Valters, D. A., and Hurst, M. D. (2017, July 6). LSDTerraceModel v1.0. *Zenodo*.
http://doi.org/10.5281/zenodo.824205

CSDMS A tool for examining changes in normalised channel steepness. Simon M. Mudd was the lead developer. Link to chi analysis tool on CSDMS
A tool for quantifying surface roughness from LiDAR data, with the application of detecting rock outcrops. PhD student David T. Milodowski was the lead developer. Link to surface roughness tool on CSDMS
A tool for detecting channel heads from LiDAR data. PhD student Fiona J. Clubb was the lead developer. Link to driech algorithm on CSDMS

Documentation

Online documentation of our tools and methods can be found at:
`https://lsdtopotools.github.io/LSDTT_documentation/`
`https://lsdtopotools.github.io/`

Publications

Click on the doi to link to the paper. A number of these are behind paywalls, so alternatively see the University of Edinburgh's research explorer page, that includes green open access pdfs.

Citation metrics can be found at Google Scholar; username Simon M. Mudd. You can also see outputs via publons (research ID F-8521-2010) or ORCiD 0000-0002-1357-8501.

Journal articles

2021 **75.** Evans, D.L., Quinton, J.N., Tye, A.M., Rodés, Á., Rushton, J.C., Davies, J.A.C., Mudd, S.M., 2021. How the composition of sandstone matrices affects rates of soil formation. *Geoderma* 401. https://doi.org/10.1016/j.geoderma.2021.115337

2021 **74.** Wang, Y.Z., Mudd, S.M., 2021. Evidence for and against landscape transience in the Northern Qinling Mountains, China. *Geomorphology* 391. https://doi.org/10.1016/j.geomorph.2021.107890

2021 **73.** Gailleton, B., Sinclair, H.D., Mudd, S.M., Graf, E.L.S., Maţenco, L.C., 2021. Isolating Lithologic Versus Tectonic Signals of River Profiles to Test Orogenic Models for the Eastern and Southeastern Carpathians. *Journal of Geophysical Research: Earth Surface* 126. https://doi.org/10.1029/2020JF005970

2021 **72.** Domingo, J.P.T., Attal, M., Mudd, S.M., Ngwenya, B.T., David, C.P.C., 2021. Seasonal fluxes and sediment routing in tropical catchments affected by nickel mining. *Earth Surface Processes and Landforms*. https://doi.org/10.1002/esp.5198

2021 **71.** Wahyudi, D.R., Sinclair, H.D., Mudd, S.M., 2021. Progressive evolution of thrust fold topography in the frontal Himalaya. *Geomorphology* 384. https://doi.org/10.1016/j.geomorph.2021.107717

2021 **70.** Gabet, E.J., Mudd, S.M., Wood, R.W., Grieve, S.W.D., Binnie, S.A., Dunai, T.J., 2021. Hilltop Curvature Increases With the Square Root of Erosion Rate. *Journal of Geophysical Research: Earth Surface* 126. https://doi.org/10.1029/2020JF005858

2021 **69.** Harries, R.M., Gailleton, B., Kirstein, L.A., Attal, M., Whittaker, A.C., Mudd, S.M., 2021. Impact of climate on landscape form, sediment transfer and the sedimentary record. *Earth Surface Processes and Landforms* 46, 990–1006. https://doi.org/10.1002/esp.5075

2020 **68.** Wang, Y., Dong, Y., Su, Z., Mudd, S.M., Zheng, Q., Hu, G., Yan, D., (2020). Spatial distribution of water and wind erosion and their influence on the soil quality at the agropastoral ecotone of North China. *Int. Soil Water Conserv. Res. 8*, 253–265. https://doi.org/10.1016/j.iswcr.2020.05.001

2020 **67.** Goodwin, G.C.H., Mudd, S.M., (2020). Detecting the Morphology of Prograding and Retreating Marsh Margins-Example of a Mega-Tidal Bay. *Remote Sens. 12*, 13. https://doi.org/10.3390/rs12010013

2020 **66.** Clubb, F.J., Mudd, S.M., Hurst, M.D., Grieve, S.W.D., (2020). Differences in channel and hillslope geometry record a migrating uplift wave at the Mendocino triple junction, California, USA. *Geology 48*, 184–188. https://doi.org/10.1130/G46939.1

2019 **65.** Evans, D.L., Quinton, J.N., Tye, A.M., Rodes, A., Davies, J.A.C., Mudd, S.M., Quine, T.A., (2019). Arable soil formation and erosion: a hillslope-based cosmogenic nuclide study in the United Kingdom. *Soil 5*, 253–263. https://doi.org/10.5194/soil-5-253-2019

2019 **64.** Hurst, M.D., Grieve, S.W.D., Clubb, F.J., Mudd, S.M., (2019). Detection of channel-hillslope coupling along a tectonic gradient. *Earth and Planetary Science Letters 522*, 30–39. https://doi.org/10.1016/j.epsl.2019.06.018

2019 **63.** Bernard, T., Sinclair, H.D., Gailleton, B., Mudd, S.M., Ford, M., (2019). Lithological control on the post-orogenic topography and erosion history of the Pyrenees. *Earth and Planetary Science Letters 518*, 53–66. https://doi.org/10.1016/j.epsl.2019.04.034

2019 **62.** Goodwin, G.C.H., Mudd, S.M., (2019). High Platform Elevations Highlight the Role of Storms and Spring Tides in Salt Marsh Evolution. *Front. Environ. Sci. 7*. https://doi.org/10.3389/fenvs.2019.00062

61. Strong, C. M., Attal, M., Mudd, S. M., and Sinclair, H. D. (2019). Lithological control on the geomorphic evolution of the Shillong Plateau in Northeast India. *Geomorphology, 330,* 133-150. https://doi.org/10.1016/j.geomorph.2019.01.016

2019 **60.** Gailleton, B., Mudd, S. M., Clubb, F. J., Peifer, D., and Hurst, M. D. (2019). A segmentation approach for the reproducible extraction and quantification of knickpoints from river long profiles. *Earth Surface Dynamics*, *7*(1), 211-230. https://doi.org/10.5194/esurf-7-211-2019

2019

59. Sinclair, H. D., Stuart, F. M., Mudd, S. M., McCann, L., and Tao, Z. (2019). Detrital cosmogenic Ne-21 records decoupling of source-to-sink signals by sediment storage and recycling in Miocene to present rivers of the Great Plains, Nebraska, USA. *Geology*, *47*(1), 3-6. https://doi.org/10.1130/G45391.1

2018 **58.** Mudd, S.M., Clubb, F. J., Gailleton, B., and Hurst, M. D. (2018). How concave are river channels? *Earth Surface Dynamics*, *6*(2), 505-523. https://doi.org/10.5194/esurf-6-505-2018

2018 **57.** Babault, J., Viaplana-Muzas, M., Legrand, X., Van Den Driessche, J., González-Quijano, M., and Mudd, S. M. (2018). Source-to-sink constraints on tectonic and sedimentary evolution of the western Central Range and Cenderawasih Bay (Indonesia). *Journal of Asian Earth Sciences*, *156*, 265-287. https://doi.org/10.1016/j.jseaes.2018.02.004

2018 **56.** Eger, A., Yoo, K., Almond, P. C., Boitt, G., Larsen, I. J., Condron, L. M., and Mudd, S. M. (2018). Does soil erosion rejuvenate the soil phosphorus inventory? *Geoderma*, *332*, 45-59. https://doi.org/10.1016/j.geoderma.2018.06.021

2018 **55.** Wang, X., Yoo, K., Mudd, S. M., Weinman, B., Gutknecht, J., and Gabet, E. J. (2018). Storage and export of soil carbon and mineral surface area along an erosional gradient in the Sierra Nevada, California. *Geoderma*, *321*, 151-163. https://doi.org/10.1016/j.geoderma.2018.02.008

2018 **54.** Codilean, A. T., Munack, H., Cohen, T. J., Saktura, W. M., Gray, A., and Mudd, S. M. (2018). OCTOPUS: An open cosmogenic isotope and luminescence database. *Earth System Science Data*, *10*(4), 2123-2139. https://doi.org/10.5194/essd-10-2123-2018

2018 **53.** Preston, J., Hurst, M. D., Mudd, S. M., Goodwin, G. C. H., Newton, A. J., and Dugmore, A. J. (2018). Sediment accumulation in embayments controlled by bathymetric slope and wave energy: Implications for beach formation and persistence. *Earth Surface Processes and Landforms*, *43*(11), 2421-2434. https://doi.org/10.1002/esp.4405

2018 **52.** Grieve, S. W. D., Hales, T. C., Parker, R. N., Mudd, S. M., and Clubb, F. J. (2018). Controls on Zero-Order Basin Morphology. *Journal of Geophysical Research: Earth Surface*, *123*(12), 3269-3291. https://doi.org/10.1029/2017JF004453

2018 **51.** Goodwin, G. C. H., Mudd, S. M., and Clubb, F. J. (2018). Unsupervised detection of salt marsh platforms: A topographic method. *Earth Surface Dynamics*, *6*(1), 239-255. https://doi.org/10.5194/esurf-6-239-2018

2017 **50.** Clubb, F. J., Mudd, S. M., Milodowski, D. T., Valters, D. A., Slater, L. J., Hurst, M. D., and Limaye, A. B. (2017). Geomorphometric delineation of floodplains and terraces from objectively defined topographic thresholds. *Earth Surface Dynamics*, *5*(3), 369-385. https://doi.org/10.5194/esurf-5-369-2017

2017 **49.** Mudd, S.M. (2017). Detection of transience in eroding landscapes. *Earth Surface Processes and Landforms*, *42*(1), 24-41. https://doi.org/10.1002/esp.3923

2017 **48.** Sinclair, H. D., Mudd, S. M., Dingle, E., Hobley, D., Robinson, R., and Walcott, R. (2017). Squeezing river catchments through tectonics: Shortening and erosion across the Indus Valley, NW Himalaya. *Bulletin of the Geological Society of America*, *129*(1-2), 203-217. https://doi.org/10.1130/B31435.1

2016 **47.** Grieve, S. W. D., Mudd, S. M., Milodowski, D. T., Clubb, F. J., and Furbish, D. J. (2016). How does grid-resolution modulate the topographic expression of geomorphic processes? *Earth Surface Dynamics*, *4*(3), 627-653. https://doi.org/10.5194/esurf-4-627-2016

2016 **46.** Grieve, S. W. D., Mudd, S. M., Hurst, M. D., and Milodowski, D. T. (2016). A nondimensional framework for exploring the relief structure of landscapes. *Earth Surface Dynamics*, *4*(2), 309-325. https://doi.org/10.5194/esurf-4-309-2016

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