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PROFESSIONAL APPOINTMENTS

2019-present Director, Environmental Science Program, University of Calgary, AB
2019-present Associate Professor, Dept of Geoscience, University of Calgary, AB
2016-2018 Adjunct Assistant Professor, Dept of Earth & Space Sciences, U Washington, WA
2015-2018 Assistant Professor, Interdisciplinary Arts & Sciences, U Washington Tacoma, WA
2011-2015 Hakai/MITACS Postdoctoral Fellow, Dept of Geography, University of Victoria, BC

EDUCATION

2011 Ph.D., Earth Sciences, Simon Fraser University, BC (Dissertation: Rock avalanches on glaciers)
2005 M.Sc., Physical Geography, University of Guelph, ON (Dissertation: Dynamics and evolution of coherent flow structures over dunes, Rio Paraná, Argentina)
2003 B.Sc., Physical Geography, Carleton University, ON (Undergraduate thesis: Ground ice in peat, central Yukon Territory (Highest Honours))

HONOURS

- Killam Emerging Research Leader Award (NSERC), University of Calgary (2023)
- Excellence in Research Award, Department of Geoscience, University of Calgary (2022)
- Grove Karl Gilbert Award for Excellence in Geomorphological Research, American Association of Geographers (2022)
- Fellow, Royal Canadian Geographical Society (2020)
- Early Career Research Excellence Award, Faculty of Science, University of Calgary (2021)
- Nominated for University of Calgary Student's Union Teaching Excellence Award (2021)
- Nominated for University of Washington Tacoma Distinguished Research Award (2018)
- Olav Slaymaker Award (Best student presentation), Canadian Geomorphology Research Group (2005)

RESEARCH CONTRIBUTIONS:

[Google Scholar](#); *h-index*: 27; *total citations*: 3420 (as of June 27, 2024)

Contribution	Refereed	Non-refereed
Journal articles	49 (+1 in review)	
Book chapters	3	
Publication in conference proceedings	5	
Editorials, reviews, reports	4	5
Invited conference presentation		16
Submitted conference talks and posters		90
Invited Talks at universities/ company /Institutes		45

PEER-REVIEWED JOURNAL ARTICLES (^Ωstudent author; *postdoc)

In Review

1. *Fathian, A., Koyi, H.A., Back, S., Nazari, H., **Shugar, D.**, Shokri, M.A., and Reicherter, K. Tectonic response at the deformation front of an evolving orogen. *Journal of Geophysical Research – Solid Earth*.

2007-2024

1. Dunham, A. Kiser, E.D., Kargel, J., Watson, S., **Shugar, D.H.**, and Haritashya, U.H. *Accepted*. The influence of

ground shaking on the distribution and size of coseismic landslides from the Mw 7.6 2005 Kashmir earthquake. *Seismica*.

2. Byers, A., Somos-Valenzuela, M., **Shugar, D.H.**, McGrath, D., Chand, M.B., and Avtar, R. 2024. Brief Communications: An ice-debris avalanche in the Nupchu Valley, Kanchenjunga Conservation Area, Eastern Nepal. *The Cryosphere*, 18(2): 711-717. doi: 10.5194/tc-18-711-2024.
3. Wood, J., Harrison, S., Wilson, R., Emmer, A., Kargel, J., Cook, S., Glasser, N., Reynolds, J., **Shugar, D.H.**, and Yarleque, C. 2024. Shaking up assumptions: Earthquakes generally do not trigger Glacier Lake Outburst Floods. *Geophysical Research Letters*, 51(7): e2023GL105578. doi: 10.1029/2023GL105578
4. Zhang, G., Carrivick, J.L., Emmer, A., **Shugar, D.H.**, Veh, G., Wang, X., *Labeledz, C., Mergili, M., Mölg, N., Huss, M., Allen, S., Sugiyama, S., and Lützwow, N. 2024. Characteristics and changes of glacial lakes and outburst floods. *Nature Reviews Earth & Environment* 5: 447-462. doi: 10.1038/s43017-024-00554-w
5. Agarwal, V., Van Wyk de Vries, M., Haritashya, U.K., Garg, S., Kargel, J.S., Chen, Y-J., and **Shugar, D.H.** 2023. Long-term analysis of glaciers and glacier lakes in the central and eastern Himalaya. *Science of the Total Environment*, 898: 165598. doi: j.scitotenv.2023.165598
6. Clague, J.J., and **Shugar D.H.** 2023. Impacts of loss of cryosphere in the high mountains of Northwest North America. *Quaternary*. 6:1. doi: 10.3390/quat6010001
7. Cooke, S.J., Galassi, D.M.P., Gillanders, B.M., Landsman, S.J., Hammerschlag, N., Gallagher, A., Eliason, E.J., Kraft, C., Taylor, M., Crisafulli, C.M., **Shugar, D.H.**, and Lennox, R.J. 2023. Consequences of “natural” disasters on aquatic life and habitats. *Environmental Reviews*. 31:122-140. doi: 10.1139/er-2022-0050
8. Nouri, M., Rashidi, A., Namin, M.M., and **Shugar, D.H.** 2023. Submarine landslide tsunami hazard assessment for the Western Makran based on a deterministic approach. *Natural Hazards*. Doi: 10.1007/s11069-023-06040-8
9. Smith, W., Dunning, S.A., Ross, N., Telling, J., Bessette-Kirton, E.K., **Shugar, D.H.**, Coe, J.A., Geertsema, M. 2023. Revising rock avalanche magnitudes and frequencies in glacial environments. *Geomorphology*. 425: 108591. Doi: 10.1016/j.geomorph.2023.108591
10. Westoby, M., Dunning, S., Carrivick, J., Coulthard, T., Sain, K., Kumar, A., Berthier, E., Haritashya, U., Shean, D., Azam, M.F., Koppes, M., McCourt, H., Upadhyay, K., and **Shugar, D.H.** 2023. Rapid fluvial remobilization of sediment deposited by the Chamoli disaster mass movement process chain. *Geology*. doi: 10.1130/G51225.1
11. Lesi, M., Nie, Y., **Shugar, D.H.**, Wang, J., Deng, Q., Chen, H., Fan, J. 2022. Landsat and Sentinel-derived glacial lake dataset in the China-Pakistan Economic Corridor from 1990 to 2020. *Earth System Science Data*. 14: 5489-5512. doi: 10.5194/essd-14-5489-2022
12. Byers, A.C., **Shugar, D.H.**, Chand, M.B., Portocarrero, C., Shrestha, M., Rounce, D., and Watanabe, T. 2022. Three recent and lesser-known glacier-related flood mechanisms in high mountain environments. *Mountain Research and Development*, 42(2):A12-22. doi: 10.1659/MRD-JOURNAL-D-21-00045.1.
13. Dunham, A.M., Kiser, E., Kargel, J.S., Haritashya, U.K., Watson, C.S., **Shugar, D.H.**, Hughes, A., and DeCelles, P.G. 2022. Topographic control of ground motions and landslides from the 2015 Gorkha earthquake. *Geophysical Research Letters*, 49, e2022GL098582. doi: 10.1029/2022GL098582
14. Geertsema, M...**Shugar, D.H.**, ^oSharp, M., and 29 others. 2022. A deglacial hazard cascade exemplified by the landslide, tsunami and outburst flood at Elliot Creek, Southern Coast Mountains, British Columbia, Canada. *Geophysical Research Letters*, 49: e2021GL096716. doi: 10.1029/2021GL096716
15. Li, D., Lu, X., Walling, D.E., Zhang, T., Steiner, J.F., Wasson, R.J., Harrison, S., Nepal, S., Nie, Y., Immerzeel, W.W., **Shugar, D.H.**, Koppes, M., Lane, S.N., Zeng, Z., Sun, X., Yegorov, A., and Bolch, T. 2022. Climate-driven landscape instability threatens hydropower dams and reservoirs in High Mountain Asia. *Nature Geoscience*. doi: 10.1038/s41561-022-00953-y
16. Van Wyk de Vries, M., Bhushan, S., Jacquemart, M., Deschamps-Berger, C., Berthier, E., Gascoin, S., Shean, D.E., **Shugar, D.H.**, and Kääb, A. 2022. Pre-collapse motion of the February 2021 Chamoli rock-ice avalanche, Indian Himalaya. *Natural Hazards and Earth System Science*, 22, 3309-3327. Doi: 10.5194/nhess-22-3309-2022
17. Kargel, J.S., Upadhyay, K., Maxwell, A., Ramos, A.G.M., Harrison, S., **Shugar, D.H.**, and Haritashya, U.K. 2021.

Climate change, land use change, and mountain disasters. *Georgetown J. of International Affairs* (online only).

- a. <https://gija.georgetown.edu/2021/08/23/part-i-climate-change-land-use-change-and-mountain-disasters/>
- b. <https://gija.georgetown.edu/2021/09/01/part-ii-climate-change-land-use-change-and-mountain-disasters/>

18. Sattar, A., Haritashya, U.K., Kargel, J.S., Leonard, G.J., **Shugar, D.H.**, and Chase, D.V. 2021. Lake outburst process chain modeling and downstream hazard assessment. *J. Hydrology*, 598: 126208. doi: 10.1016/j.jhydrol.2021.126208
19. **Shugar, D.H.**, and 52 others. 2021. A massive rock-ice avalanche caused the 2021 hazard cascade at Chamoli, Indian Himalaya. *Science*, 373:300-306. doi: 10.1126.science.abh4455
20. Bloom, C.K., MacInnes, B., Higman, B., **Shugar, D.H.**, Venditti, J.G., Richmond, B., Bilderback, E.L., Stark, C.P. 2020. Catastrophic landscape modification from a massive landslide tsunami in Taan Fiord, Alaska. *Geomorphology*, 353: 107029. doi: 10.1016/j.geomorph.2019.107029
21. **Shugar, D.H.**,[□]Burr, A., Haritashya, A.K., Kargel, J.S., Watson, C.S., Kennedy, M.C., Bevington, A.R., Betts, R.A., Harrison, S., and Strattman, K. 2020. Rapid worldwide growth of glacial lakes since 1990. *Nature Climate Change*, 10: 939-945. doi: 10.1038/s41558-020-0855-4
22. Watson, C.S., Kargel, J.S., **Shugar, D.H.**, Haritashya, U.K., and Schiassi, E. 2020. Mass loss from calving and melting of icebergs in Himalayan proglacial lakes. *Frontiers Earth Science*, 7: 342. doi: 10.3389/feart.2019.00342
23. Brideau, M.A., **Shugar, D.H.**, Bevington, A., Willis, M., and Wong, C. 2019. Evolution of the 2014 Vulcan Creek landslide-dammed lake, Yukon, Canada, using field and remote survey techniques. *Landslides*, 16: 1823-1840. doi: 10.1007/s10346-019-01199-3
24. Byers, A., Rounce, D., **Shugar, D.H.**, Lala, J.M., Byers, E.A., and Regmi, D. 2019. A rockfall-induced glacial lake outburst flood, upper Barun valley, Nepal. *Landslides*, 16: 533-549. doi: 10.1007/s10346-018-1079-9
25. Kirschbaum, D.L., Watson, C.S., Rounce, D.R., **Shugar, D.H.**, Kargel, J.S., Haritashya, U.K., Amatya, P., Shean, D., Anderson, E.R., and Jo, M. 2019. Remote sensing of cascading hazards over High Mountain Asia. *Frontiers in Earth Science*, 7: 197. doi: 10.3389/feart.2019.00197
26. Schiassi, E., Furfaro, R., Kargel, J.S., Watson, C.S., **Shugar, D.H.**, and Haritashya, U.K. 2019. GLAM BioLith-RT for GMELT Toolbox: A semi-analytical tool for remote sensing of lake water characterization. *Frontiers in Earth Science*, 7: 267. doi: 10.3389/feart.2019.00267
27. Dufresne, A., Geertsema, M., **Shugar, D.H.**,...[□]Bonno, D., and 10 other authors. 2018. Sedimentology and geomorphology of a large tsunamigenic landslide, Taan Fiord, Alaska. *Sedimentary Geology*, 364: 302-318. doi: 10.1016/j.sedgeo.2017.10.004
28. [□]Eamer, J.B.R., **Shugar, D.H.**, Walker, I.J., Neudorf, C., Lian, O. Eamer, J., Bryce, J., Biln, L. 2018. Late Quaternary landscape evolution in a region of stable postglacial relative sea-levels, British Columbia central coast. *Boreas*, 47:738-753. doi: 10.1111/bor.12297
29. Haeussler, P.J.,...**Shugar, D.H.**, and 8 other authors. 2018. Submarine deposition of a subaerial landslide in Taan Fiord, Alaska. *J. Geophysical Research – Earth Surface*, 123:2443-2463. doi: 10.1029/2018JF004608
30. Haritashya, U.K., Kargel, J.S., **Shugar, D.H.**, & 7 others. 2018. Evolution and controls of large glacial lakes in the Nepal Himalaya. *Remote Sensing*, 10: 798. doi: 10.3390/rs10050798
31. Harrison, S., Kargel, J., Huggel, C., Reynolds, J., **Shugar, D.**, & 10 other authors. 2018. Climate change and the global pattern of moraine-dammed glacial lake outburst floods. *The Cryosphere*, 12: 1195-1209. doi: 10.5194/tc-12-1195-2018
32. Higman, B., **Shugar, D.H.**,...[□]Bonno, D., and 29 other authors. 2018. Glacier retreat and the largest landslide-triggered marine tsunami since 1958. *Scientific Reports*, 8: 12993 doi: 10.1038/s41598-018-30475-w
33. **Shugar, D.H.**, Clague, J.J., and McSaveney, M.J. 2018. Late Holocene activity of Sherman and Sheridan glaciers, Prince William Sound, Alaska. *Quaternary Science Reviews*, 194: 116-127. Doi: 10.1016/j.quascirev.2018.07.016

34. **Shugar, D.H.**, Colorado, K.A., Clague, J.J., Willis, M., and Best, J.L. 2018. Boundary - Mapping and visualizing climatically changed landscapes at Kaskawulsh Glacier and Kluane Lake, Yukon. *J. Maps*, 15:19-30. doi: 10.1080/17445647.2018.1467349
35. ^ΩEamer, J.B., **Shugar, D.H.**, Walker, I.J., Lian, O.B., and Neudorf, C.M. 2017. Distinguishing depositional setting for sandy deposits in coastal landscapes using grain shape. *J. Sedimentary Research*, 87: 1-11.
36. ^ΩEamer, J.B., **Shugar, D.H.**, Walker, I.J., Lian, O.B., Neudorf, C.M., and Telka, A.M. 2017. A unique late Pleistocene glacial re-advance during retreat of Cordilleran Ice Sheet. *Quaternary Research*, 87: 468-481
37. **Shugar, D.H.**, Clague, J.J., Best, J.L., Schoof, C., Willis, M.J., Copland, L., and Roe, G.H. 2017. River piracy and drainage basin reorganization driven by climate-led glacier retreat. *Nature Geoscience*, 10: 370-375. doi: 10.1038/ngeo2932
38. Kargel, J.S. Leonard, G.J., **Shugar, D.H.**, Haritashya, U.K., & 60 others. 2016. Geomorphic and geologic controls of geohazards induced by Nepal's 2015 Gorkha earthquake. *Science*, 351: 140. Doi: 10.1126/science.aac8353
39. Neudorf, C., Lian, O.B., Walker, I.J., **Shugar, D.H.**, ^ΩEamer, J.B.R., and Griffin, L.C. 2015. Toward a luminescence chronology for coastal dune and beach deposits on Calvert Island, British Columbia central coast, Canada. *Quaternary Geochronology*, 30: 275-281.
40. McLaren, D., Fedje, D., Hay, M., Mackie, Q., Walker, I.J., **Shugar, D.H.**, ^ΩEamer, J.B.R., Lian, O.B., and Neudorf, C. 2014. A postglacial sea-level hinge on the central Pacific coast of Canada. *Quaternary Science Reviews*, 97: 148-169.
41. **Shugar, D.H.**, Walker, I.J., Lian, O.B., ^ΩEamer, J.B., Neudorf, C., McLaren, D., and Fedje, D. 2014. Post-glacial sea-level change along the Pacific coast of North America. *Quaternary Science Reviews*, 97: 170-192.
42. Walker, I.J., and **Shugar, D.H.**, 2013. Secondary flow deflection in the lee of transverse dunes with implications for dune morphodynamics and migration. *Earth Surface Processes & Landforms*, 38: 1642-1654.
43. **Shugar, D.H.**, Rabus, B.T., Clague, J.J., and Capps, D.M. 2012. The response of Black Rapids Glacier, Alaska, to the Denali earthquake rock avalanches. *J. Geophysical Research - Earth Surface*. 117, F01006.
44. **Shugar, D.H.**, and Clague, J.J. 2011. The geomorphology and sedimentology of rock avalanches on glaciers. *Sedimentology*, 58: 1762-1783.
45. Capps, D.L., Rabus, B.T., Clague, J.J. and **Shugar, D.H.** 2010. Identification and characterization of alpine subglacial lakes using interferometric synthetic aperture Radar (InSAR), Brady Glacier, Alaska, USA. *J. Glaciology*, 56: 861-870.
46. **Shugar, D.H.**, Rabus, B.T., and Clague, J.J. 2010. Elevation changes (1949-1995) of Black Rapids Glacier, Alaska, derived from a multi-baseline InSAR DEM and historical maps. *J. Glaciology*, 56: 625-634.
47. **Shugar, D.H.**, Kostaschuk, R., Best, J.L., Lane, S.N., Parsons, D.R., Orfeo, O., and Hardy, R.J. 2010. On the relationship between flow and suspended sediment transport over the crest of a sand dune, Rio Paran, Argentina. *Sedimentology*, 57: 252-272.
48. Kostaschuk, R., **Shugar, D.H.**, Best, J.L., Parsons, D.R., Lane, S.N. Hardy, R.J., and Orfeo, O. 2009. Suspended sediment transport and deposition over a dune: Rio Parana, Argentina. *Earth Surface Processes & Landforms*, 34: 1605-1611.
49. **Shugar, D.H.**, Kostaschuk, R., Ashmore, P., Desloges, J., and Burge, L. 2007. *In-situ* jet testing of the erosional resistance of cohesive streambeds. *Canadian J. Civil Engineering*, 34: 1192-1195.

BOOK CHAPTERS, PROCEEDINGS, REPORTS, ETC

1. ^ΩBodtker, J., Cronmiller, D., Bond, J.D., and **Shugar, D.H.** 2023. The Sunnysdale landslide, current understanding and research, Dawson City, Yukon Territory, Canada (Dawson map area NTS116B/3). In: MacFarlane, K.E., (Ed) *Yukon Exploration and Geology 2022*. Yukon Geological Survey, Whitehorse, pp. 19-34.
2. *Fathian, A., Atzori, S., Svigkas, N., Tolomei, C., **Shugar, D.H.**, and Reicherter, K. 2022. Source characteristics of the Fin doublet earthquake of 14 November 2021 (Mw 6.2 and Mw 6.3) utilizing InSAR. IEEE IGARSS. 4pp.
3. Deline, P., Hewitt, K., **Shugar, D.H.**, and Reznichenko, N. 2021. Rock avalanches onto glaciers. In: Davies, T.R. & Rosser, N. (Eds) *Landslide Hazards, Risks, and Disasters*, 2nd Edition. Elsevier. pp 269-333.

4. Emmer, A., Cook, S.J., Frey, H., and **Shugar, D.H.** 2021. Editorial: Geohazards and risks in high mountain regions. *Frontiers Earth Sci.*, 9. doi: 10.3389/feart.2021.754260
5. Higman, B., Geertsema, M., **Shugar, D.H.**, Lynett, P., and Dufresne, A. 2019. The 2015 Taan Fiord landslide and tsunami. *Alaska Park Science*, 18, 7-16
6. **Shugar, D.H.**, Kane, I. 2019. An adventure in predatory publishing: the contents of two medicine cabinets. *Nature*, 568: 316. doi: 10.1038/d41586-019-01207-5
7. Kargel, J.S., Haritashya, U.K., **Shugar, D.H.**, Bishop, M., and Furfaro, R. 2018. High mountain hazard hotspots in seismically and volcanically active cryosphere regions. *NASA White Paper*.
8. **Shugar, D.H.**, and Clague, J.J. 2018. Changing glaciers, changing rivers. In: Parrott, L., Robinson, Z., and Hik, D. (Eds) State of the Mountains Report. *Alpine Club of Canada*. pp. 4-11.
9. Shrestha, A.B., Bajracharya, S.R., Kargel, J.S., Khanal, N.R., Karki, A., Collins, B.D., **Shugar, D.H.**, & 16 others. 2016. The Impact of Nepal's 2015 Gorkha Earthquake-Induced Geohazards. International Centre for Integrated Mountain Development (ICIMOD), Kathmandu, 36pp.
10. **Shugar, D.H.** 2016. Book review: Geology Underfoot in Western Washington. *Pacific Northwest Quarterly*, 107: 38-39.
11. Brideau, M.-A., **Shugar, D.H.**, and Wong, C., 2016. Preliminary investigation of the 2014 Vulcan Creek landslide dam, Kluane National Park and Reserve, Yukon. Paper 3902, *69th Canadian Geotechnical Conference*, Vancouver, BC, 8 p.
12. Phillips, M.R., Burn, C.R., Wolfe, S.A., Morse, P.D., Gaanderse, A.J., O'Neill, H.B., **Shugar, D.H.**, and Gruber, S. 2015. Improving water content description of ice-rich permafrost soils. *Proceedings, GeoQuebec 2015*. Quebec City, QC, 7p.
13. **Shugar, D.H.** 2014. Bathymetric and geophysical surveys of the southern end of Kluane Lake. In: MacFarlane, K.E., Nordling, M.G., and Sack, P.J. (Eds) *Yukon Exploration and Geology 2013*. Yukon Geological Survey, Whitehorse, pp. 221-231.
14. Deline, P., Hewitt, K., Reznichenko, N., and **Shugar, D.H.** 2014. Rock avalanches onto glaciers. In: Davies, T.R. (Ed) *Landslide Hazards and Disasters*. Elsevier, pp. 263-319.
15. **Shugar, D.H.**, Clague, J.J., and Giardino, M., 2013. A quantitative assessment of the sedimentology and geomorphology of rock avalanche deposits. In: Catani, F., Margottini, C., Trigila, A., and Iadanza, C. (Eds) *Landslide Science and Practice, Vol 4: Global Environmental Change*. Springer-Verlag, pp. 321-326.
16. **Shugar, D.**, Kostaschuk, R., Best, J., Parsons, D., Lane, S., Hardy, R., and Orfeo, O., 2007. Sediment dynamics over a dune in the Rio Paraná. In: Paola, C., Parker, G., and García, M.H. (Eds) *Workshop on Morphodynamic Processes in Large Lowland Rivers*. Santa Fe, Argentina, 3p.
17. Parsons, D.R., Best, J.L., Lane, S.N., Hardy, R.J., Kostaschuk, R.A., **Shugar, D.H.**, and Orfeo, O., 2006. Morphology, flow and sediment transport over a natural 3D dune field: Rio Paraná, Argentina. In: Ferreria, R.M., Alves, E.C., Leal, J.G., and Cardos, A.H. (Eds) *RiverFlow 2006: Intl. Conference on Fluvial Hydraulics*. Lisbon. Taylor & Francis Group, London, pp. 997-1004.

Conference Presentations

Invited

- *Labeledz, C.R., Bartholomaeus, T.C., Amundson, J.M., Karplus, M.S., Veitch, S.A., and **Shugar, D.H.** 2022. Swarm-like behavior of icequakes associated with surface crevassing activity on a mountain glacier. AGU Annual Meeting (oral).
- **Shugar, D.H.**, 2022. What happened at Bute Inlet? The Hydrographic Society of America (West Coast Chapter) (oral).
- Hage, S., Acikalin, S., Bailey, L., Cartigny, M., Clare, M., Chen, Y., Galy, V., Heijnen, M., Heerema, K., Hubbard, S., Jackson, J., Lintern, G., **Shugar, D.H.**, Simmons, S., Stacey, C., Talling, P., *Tilston, M., Parsons, D., and Pope, E. 2021. A field-scale laboratory to study particulate transport from river source to marine sink: Bute Inlet, Canada. EGU Annual Meeting (PICO).
- Jacquemart, M., **Shugar, D.H.**, Higman, B.M., Loso, M., Kaab, A., Leines, S., and Geertsema, M. 2021. Detecting the imprint of climate change in high mountain hazards: challenges and opportunities. AGU

Annual Meeting (poster).

- **Shugar, D.H.**. 2021. The role of social media and rapid satellite imaging in disaster response. Planet Explore.
- **Shugar, D.H.**, [□]Burr, A., Haritashya, U.K., Kargel, J., Watson, C.S., Bevington, A., Steiner, N., Betts, R., Harrison, S., Strattman, K., and Kennedy, M., 2019. Where are the world's glacial lakes and how big are they? EGU Annual Meeting (oral).
- Willis, M.J., Higman, B., **Shugar, D.H.**, Lynett, P., Barba, M., Tiampo, K.F., Clark, M.K., Zheng, W., Pritchard, M.E., Ramage, J.M., Stearns, L.A., and Morin, P. 2017. Landslide, earthquake, and cryosphere studies using high-resolution digital surface models from commercial imagery and drones. Geological Society of America, Seattle (oral).
- Best, J., **Shugar, D.**, Clague, J., Parsons, D., Kostaschuk, R., Houseago, B., Hizzett, J. 2017. The morphology of the Slims River delta front, Yukon: a transition from erosional to depositional density current flows? Dynamics of Gravity Currents Workshop, Santa Barbara (oral).
- Kostaschuk, R., **Shugar, D.**, Best, J., Parsons, D., Clague, J., Hizzett, J., 2017. The stability of dense hyperpycnal flows: Kluane Lake, Yukon Territory, Canada. Dynamics of Gravity Currents Workshop, Santa Barbara (oral).
- **Shugar, D.H.**, Haeussler, P.J., Gulick, P.S., Venditti, J.G., Ekstrom, G., and Stark, C.P., 2017. A massive tsunamigenic landslide in southern Alaska. Dynamics of Gravity Currents Workshop, Santa Barbara (oral).
- Collins, B.D., Jibson, R.W., Kargel, J.S., **Shugar, D.H.**, and Haritashya, U.K., 2016. Searching for correlations: landslide distribution from the M7.8 25 April 2015 Gorkha, Nepal Earthquake. Seismological Society of America Annual Meeting, Reno, NV (oral).
- Haritashya, U., Kargel, J., **Shugar, D.H.**, Leonard, G., Fujita, K., and Fielding, E., 2016. Gorkha Nepal earthquake: Assessing little effect on glacial lakes. European Geophysical Union, Vienna (oral).
- **Shugar, D.H.**, 2016. Rock avalanche sedimentology and geomorphology. International Meeting of Sedimentologists, Marrakech, Morocco (oral).
- Kargel, J., **Shugar, D.H.**, Haritashya, U., Leonard, G., Fielding, E., Hudnut, K., Jibson, R., and Collins, B. 2015. Geological, geophysical, and stochastic factors in Nepal's Gorkha earthquake-triggered landslide distribution. AGU Fall Meeting, San Francisco, CA (oral).
- Kargel, J., Collins, B., Fielding, E., Fujita, K., Haritashya, U., Hudnut, K., Leonard, G., **Shugar, D.H.**, Sakai, A., and Jibson, R. 2015. Why did the Nepal Gorkha earthquake have so few effects on glacial lakes? AGU Fall Meeting, San Francisco, CA (oral).
- Clague, J.J., and **Shugar, D.H.** 2009. Decay of the Cordilleran Ice Sheet at the end of the Pleistocene. AGU Fall Meeting, San Francisco, CA (oral).

Submitted

- [□]Basiuk, H.J., **Shugar, D.H.**, and [□]Kijak, S. Landslide inventories for two coastal watersheds in British Columbia using semi-automated detection from satellite imagery. 45th Canadian Symposium on Remote Sensing (oral).
- *Fathian, A., Koyi, H., Back, S., Nazari, H., **Shugar, D.H.**, Shokri, M.A., and Reicherter, K. 2024. Active tectonics within the southwestern edge of the Fars Arc, SW Iran. EGU Annual Meeting (oral).
- **Shugar, D.H.**, Flowers, G.E., Cronmiller, D., Mingo, L., von Finster, A., and [□]Sharp, M.A. 2024. Tweedsmuir Glacier, Alsek River, and the salmon migration that wasn't. EGU Annual Meeting (oral).
- *Bailey, L., **Shugar, D.H.**, *Labeledz, C.R., [□]Basiuk, H., [□]Richardson, A., and Hubbard, S.M. 2023. Satellite observations of glacial flood-derived sea surface turbidity along the Alaska-British Columbia border. AGU Annual Meeting (oral).
- *Fathian, A., Koyi, H.A., Back, S., Nazari, H., **Shugar, D.H.**, Shokri, M.A., Reicherter, K.R. 2023. Active tectonics within the southwestern edge of the Fars Arc, SW Iran. AGU Annual Meeting (withdrawn).
- *Labeledz, C.R., **Shugar, D.H.**, [□]Basiuk, H., [□]Richardson, A., Dettmer, J., and Schoof, C. 2023. Seismic signals associated with glacial lake outburst floods at Salmon Glacier, British Columbia. AGU Annual Meeting (oral).
- Wright, M., Carr, J.C., **Shugar, D.H.**, and Venditti, J.G. 2023. Modeling velocity-discharge relations in a mixed bedrock and sediment mantled river. AGU Annual Meeting (oral).

- Acikalin, S., Cartigny, M., Sahin, S., Hage, S., Baker, M., Lintern, G., Cooper, S., Hubbard, S., **Shugar, D.H.**, *Tilston, M., Galy, V., Giesbrecht, I., Clare, M., Aggarwal, R., and Tank, S., 2023. Organic carbon transport to deep water by extreme events: case study of Elliot Creek GLOF event, BC, Canada. Bouma Deep Water Geoscience Conference (poster).
- *Fathian, A., Tolomei, C., **Shugar, D.H.**, Salvi, S., and Reicherter, K. 2023. Shallow deformation of the Mw 4.9 Khonj earthquake (6 January 2017) in the Zagros Simply Folded Belt, Iran. EGU Annual Meeting (poster).
- Li, D. Lu, X., Walling, D., Zhang, T., Steiner, J., Wasson, R., Harrison S., Nepal, S., Nie, Y., Immerzeel, W., **Shugar, D.**, Koppes, M., Lane, S., and Bolch, T. 2023. Increasing cryospheric hazards and sediment supply threaten water quality and hydropower systems in high mountain areas. EGU Annual Meeting (oral).
- *Tilston, M., **Shugar, D.H.**, Lintern, G., Stacey, C., Acikalin, S., *Bailey, L., Cartigny, M., Clare, M., Hughes Clarke, J., Geertsema, M., Giesbrecht, I., Hage, S., Heijnen, M., Hubbard, S., Jackson, J., [□]Lee, E., Menounos, B., Parsons, D., and Talling, P. 2023. The impacts of a glacial lake outburst flood on the marine environment: the case of the 2020 Elliot Creek hazards cascade. GSA Penrose Symposium (oral).
- Westoby, M., Dunning, S., Carrivick, J., Coulthard, T., Sain, K., Kumar, A., Berthier, E., Haritashya, U., Shean, D., Azam, M.F., Upadhyay, K., Koppes, M., McCourt, H., and **Shugar, D.H.** 2023. Rapid fluvial mobilization of sediment deposited by the cataclysmic Chamoli disaster debris flow. GSA Penrose Symposium (oral).
- Anderson, E.R., Kirschbaum, D.K., Amatya, P.M., Haritashya, U.K., **Shugar, D.H.**, Shean, D.E., and Kargel, J.S., 2022. Landslide runout analysis using remote sensing for Lower and Upper Barun lakes. AGU Annual Meeting (poster).
- *Bailey, L., **Shugar, D.H.**, *Tilston, M., Hubbard, S.M., Giesbrecht, I., Jackson, J., Belluz, J., Clare, M.A., Cartigny, M., Acikalin, S., and Hage, S., 2022. Impacts of the 2020 Elliot Creek outburst flood on sea surface turbidity. AGU Annual Meeting (poster).
- Li, D., Xixi, L., Zhang, T., Steiner, J., Harrison, S., Nepal, S., Nie, Y., Immerzeel, W.W., **Shugar, D.H.**, and Bolch, T., 2022. High Mountain Asia hydropower systems threatened by climate-driven hazards and sediment supply. AGU Annual Meeting (poster).
- Dunham, A., Kiser, E., Kargel, J., Haritashya, U., Watson, S., **Shugar, D.** 2022. Ground motion simulations relating topographic amplification and landslide initiation during the Mw7.6 2005 Kashmir earthquake. EGU Annual Meeting (oral).
- *Fathian, A., Atzori, S., Svingkas, N., Tolomei, C., **Shugar, D. H.**, and Reicherter, K., 2022. Source characteristics of the Fin doublet earthquake of 14 November 2021 (Mw 6.2 and Mw 6.3) utilizing InSAR data, International Geoscience and Remote Sensing Symposium (IGARSS), Kuala Lumpur, Malaysia (oral).
- Dunham, A., Kiser, E., Kargel, J., Haritashya, U., Watson, S., **Shugar, D.**, Hughes, A., and DeCelles, P. 2021. Topographic control of ground motions and landslides from the 2015 Gorkha earthquake. Southern California Earthquake Center Annual Meeting (poster).
- Dunham, A., Kiser, E., Kargel, J., Haritashya, U., Watson, S., and **Shugar, D.** 2021. The role of topographic amplification in triggering landslides from the 2005 M7.6 Kashmir. AGU Annual Meeting (poster).
- Dunning, S., Gascoïn, S., **Shugar, D.**, and Schwangart, W. 2021. Tracking the sediment plume from the 7th February 2021 Chamoli (Uttarakhand, India) hazard cascade. EGU Annual Meeting (PICO).
- Frey, L., Frey, H., Huss, M., Allen, S., Farinotti, D., Huggel, C., Emmer, A., and **Shugar, D.H.** 2021. A global inventory of potential future glacial lakes. EGU Annual Meeting (PICO).
- Geertsema, M., Menounos, B., **Shugar, D.**, Millard, T., Ward, B., Ekstrom, G., Clague, J., Lynett, P., Carrivick, J., Friele, P., Schaeffer, A., Donatti, D., Stead, D., Jackson, J., Higman, B., Dai, C., Brillon, C., Heathfield, D., Bullard, G., Giesbrecht, I., Hughes, K., and Jacquemart, M., 2021. Terrestrial overview of a landslide-tsunami-flood cascade at Elliot Creek, British Columbia. EGU Annual Meeting (PICO).
- Geertsema, M., Menounos, B., **Shugar, D.**, Millard, T., Ward, B., Ekstrom, G., Clague, J., Lynett, P., Friele, P., Schaeffer, A., Jackson, J., Higman, B., Dai, C., Brillon, C., Heathfield, D., Bullard, G., Giesbrecht, I., Hughes, K., 2021. A landslide-generated tsunami and outburst flood at Elliot Creek, coastal British Columbia. EGU Annual Meeting (PICO).
- Li, D., Xixi, L., Walling, D.E., Wasson, R.J., Harrison, S., Nepal, S., Steiner, J.F., Nie, Y., Immerzeel, W.W., **Shugar, D.H.**, Zhang, T., Yegorov, A., and Bolch, T., 2021. Climate change and landscape instability in High

Mountain Asia. AGU Annual Meeting (poster).

- Menounos, B., Anslow, F.S., Bevington, A., Onukwe, C., Townend, J., Heathfield, D., Shea, J.M., Darychuck, S., **Shugar, D.H.**, Flowers, G.E., and Jackson, P.L. 2021. Cryospheric response to the June, 2021 Heat Dome. AGU Annual Meeting (poster).
- Mergili, M., Sattar, A., Carrivick, J., Emmer, A., Mandli, K.T., Jacquemart, M., Watson, S., Westoby, M., Clague, J.J., Haritashya, U.K., and **Shugar, D.H.**, 2021. Exploring the flow evolution of the Chamoli event (Uttarakhand, India) of 7 February 2021: From geomorphological mapping to multi-model computer simulations. EGU Annual Meeting (PICO).
- *Tilston, M., **Shugar, D.H.**, Clare, M., Heijnen, M., Acikalin, S., Cartigny, M., Talling, P., Parsons, D., Lintern, G., Stacey, C., Hubbard, S., Hage, S., Bell, D., Hughes Clark, J., Giesbrecht, I., Jackson, J., and Menounos, B., 2021. Effects of extreme events on the morphology of submarine channels: the case of the Elliot Hazard cascade. EGU Annual Meeting (PICO).
- Van Wyk de Vries, M., Bhushan, S., Shean, D., Berthier, E., Deschamps-Berger C., Gascoin, S., Jacquemart, M., Kaab, A., and **Shugar, D.**, 2021. Resolving pre-collapse slope motion at the February 2021 Chamoli rock-ice avalanche via feature tracking of optical satellite imagery. EGU Annual Meeting (PICO).
- Frey, H., Huggel, C., Allen, S., Emmer, A., **Shugar, D.**, Farinotti, D., Huss, M., and Horst, M., 2020. Towards a global assessment of future glacial lakes and related hazards, risks and opportunities. EGU Annual Meeting (oral).
- ^QGoss, G., **Shugar, D.H.**, and Best, J., 2020. Denton, Andrew, Porter Glacial Geology Award: Fluvial response to climate change-induced stream capture, Yukon, Canada. GSA Annual Meeting (poster).
- ^QGoss, G., **Shugar, D.H.**, and Best, J., 2020. Fluvial response to climate change-induced stream capture, Yukon, Canada. AGU Annual Meeting (poster).
- ^QSharp, M., **Shugar, D.H.**, and Flowers, G.E., 2020. Reconstruction of Tweedsmuir Glacier's surge cycle with historical images. ArcticNet Arctic Change Meeting (poster).
- ^QSharp, M., **Shugar, D.H.**, and Flowers, G.E., 2020. Reconstruction of Tweedsmuir Glacier's surge cycle with historical images. AGU Annual Meeting (poster).
- Dunham, A., Kiser, E., Kargel, J.S., **Shugar, D.H.**, Haritashya, U.K., and Watson, S., 2019. Uncovering relationships between ground shaking and coseismic landsliding during the April 25, 2015 Gorkha Earthquake through full wavefield simulations using SPEC3D. AGU Annual Meeting (poster).
- Eaton, D.,...**Shugar, D.H.**,...and 14 others. 2019. EON-ROSE: an integrated geophysical and environmental instrumental network initiative for Earth Systems studies in Canada. International Union of Geodesy and Geophysics, Montreal, Canada (poster).
- Karki, A., Kargel, J.S., **Shugar, D.**, Haritashya, U., Watson, S., Paudyal, S., Searle, M., Ahlqvist, C., 2019. Landslide potential and glacial lake outburst flood hazards in the Makalu-Barun area (Nepal) accentuated by lithological variability. 34th Himalaya-Karakorum-Tibet Workshop (poster).
- Ockelford, A., Curran, J., Parsons, D., **Shugar, D.**, 2019. Morphodynamic and ecohydraulic response of different engineered log jam configurations in response to changes in discharge. 4th International Conference on Wood in World Rivers (oral).
- **Shugar, D.H.**, ^QBurr, A., Haritashya, U.K., Kargel, J., Watson, C.S., Kennedy, M., Bevington, A., Betts, R., Harrison, S., and Strattman, K., 2019. Recent doubling of mid- and low-latitude glacial lakes. AGU Annual Meeting (oral)
- Dufresne, A., Geertsema, M., **Shugar, D.H.**,...^QBonno, D., and 11 others., 2018. The October 2015 tsunamigenic landslide in Taan Fiord, Alaska. European Geophysical Union, Vienna, Austria (poster).
- Haritashya, U.K., Kargel, J.S., **Shugar, D.H.**, Leonard, G.J., Watson, C.S., Furfaro, R., Chase, D., Kirschbaum, D., and Anderson, E., 2018. Growth of Lower Barun glacial lake, Nepal Himalaya. American Geophysical Union, San Francisco (poster).
- Paudyal, S., Karki, A., Kargel, J.S., Regmi, D., Haritashya, A.K., Watson, C.S., and **Shugar, D.H.**, 2018. Petrography of the 2017 Langmale (Nepal) landslide and glacier lake outburst flood. American Geophysical Union, San Francisco (poster).
- ^QBonno, D.M., **Shugar, D.H.**, Venditti, J., 2017. Rapid kettle formation due to tsunami erosion of submarine

glacier ice, Taan Fiord, Alaska. Canadian Geophysical Union, Vancouver (oral).

- Crabbe, E., Ockelford, A., Curran, J., Parsons, D., **Shugar, D.**, ^oBurr, A., ^oKennedy, K., and Coe, T. The impact of engineered log jams on bed morphology, flow characteristics, and habitat diversity under low flow. American Geophysical Union, San Francisco (poster).
- Haeussler, P., Stark, C., **Shugar, D.**, and 21 others. 2017. The seismologically detected Taan Fiord landslide and tsunami of 17 October 2015. Seismological Society of America, Denver (oral).
- Haritashya, U., Kargel, J., Leonard, G., **Shugar, D.**, Binger, D., and Regmi, D., 2017. Evolution of Imja, Lower Barun and Thulagi glacial lake and its geomorphological relationship. International Conference on Geomorphology, New Delhi, India (oral).
- Kargel, J.S., Haritashya, U., **Shugar, D.H.**, Karki, A., and Harrison, S., 2017. Himalayan lake- and river-impacting landslides and ice avalanches: some so deadly, some no problem. American Geophysical Union, San Francisco (oral).
- Neudorf, C., Lian, O.B., Biln, L.C.M., Bryce, J.K., ^oEamer, J.B., Smith, N., **Shugar, D.H.**, Walker, I.J., and Clague, J.J., 2017. Optical dating sediments from coastal BC: successes, challenges and plans for the future. Geological Society of America, Seattle (oral).
- **Shugar, D.H.**, 2017. Rock avalanche sedimentology. Geological Society of America, Seattle (oral).
- **Shugar, D.H.**, Clague, J.J., Best, J.L., Schoof, C., Willis, M.J., Copland, L., and Roe, G.H., 2017. A river (used) to run through it. American Geophysical Union, San Francisco (oral).
- **Shugar, D.H.**, Clague, J.J., Best, J.L., Schoof, C., Willis, M.J., Copland, L., and Roe, G.H., 2017. Inspector Kaskawulsh and the case of the disappearing river. Canadian Geophysical Union, Vancouver (oral).
- **Shugar, D.H.**,... ^oBonno, D., and 23 others, 2017. Preliminary findings of the seismologically detected Taan Fiord landslide and tsunami of 17 October 2015. Canadian Geophysical Union, Vancouver (oral).
- Stratman, K., Haritashya, U., Kargel, J., **Shugar, D.H.**, Furfaro, R., and Leonard, G.J., 2017. Assessing annual ice velocity fluctuations of three lake-terminating glaciers in Nepal. American Geophysical Union, San Francisco (poster).
- Bryce, J., Neudorf, C.M., Griffin, L., Lian, O., Walker, I.J., **Shugar, D.H.**, and ^oEamer, J.B.R., 2015. The origin of mysterious organic mats in the beaches of Calvert Island, BC central coast. Hakai Research Symposium, Victoria, BC (poster).
- ^oEamer, J.B.R., **Shugar, D.H.**, Walker, I.J., Lian, O.B., and Neudorf, C.M., 2015. 15000 years of landscape change on northwest Calvert Island. Hakai Research Symposium, Victoria, BC (poster).
- **Shugar, D.H.**, Immerzeel, W., Wanders, N., Kargel, J., Leonard, G., Haritashya, U., and Collins, B., 2015. Gorkha earthquake-induced landslides and dammed lakes: Evolution and outburst modeling. AGU Fall Meeting, San Francisco, CA (oral).
- ^oEamer, J.B.R., **Shugar, D.H.**, Walker, I.J., Lian, O.B., Neudorf, C., and Telka, A.M., 2014. A significant late Pleistocene glacial readvance during retreat of the Cordilleran Ice Sheet on the central coast of British Columbia. Geological Society of America Meeting, Vancouver, BC (poster).
- ^oEamer, J.B.R., **Shugar, D.H.**, Walker, I.J., Lian, O.B., Neudorf, C., and Telka, A.M., 2014. A significant late Pleistocene glacial readvance during retreat of the Cordilleran Ice Sheet on the central coast of British Columbia. Hakai Research Symposium, Victoria, BC (poster).
- ^oEamer, J., Walker, I.J., Lian, O.B., **Shugar, D.H.**, and Neudorf, C.M., 2014. Towards a late-Pleistocene and Holocene geomorphic history of Calvert Island. Canadian Association of Geographers, Western Division Meeting, Victoria, BC (oral).
- Griffin, L., Neudorf, C.M., Lian, O.B., Walker, I.J., **Shugar, D.H.**, and ^oEamer, J.B.R., 2014. An example of the importance of using multiple dating methods, Calvert Island, British Columbia. Hakai Research Symposium, Victoria, BC (poster).
- Griffin, L., Neudorf, C.M., Lian, O.B., Walker, I.J., **Shugar, D.H.**, and ^oEamer, J.B.R., 2014. An example of the importance of using multiple dating methods, Calvert Island, British Columbia. Western Division of the Canadian Association of Geographers meeting, University of Victoria (poster).
- Mann, D., **Shugar, D.H.**, Gaglioti, B., and Streveler, G., 2014. Timing of the northwest coast ice-gates: glacier extents and relative sea level on the Gulf of Alaska margin. American Quaternary Association Meeting,

Seattle (poster).

- Neudorf, C.M., Lian, O.B., Mackovic, B., Griffin, L., Bryce, J., Walker, I.J., **Shugar, D.H.**, and ^oEamer, J.B.R., 2014. Optical ages and luminescence characteristics of quartz and feldspar from Calvert Island. Canadian Association of Geographers, Western Division Meeting, Victoria, BC (oral).
- Neudorf, C.M., Lian, O.B., Walker, I.J., **Shugar, D.H.**, and ^oEamer, J.B.R., 2014. Optical ages and luminescence characteristics of quartz and feldspar from Calvert Island, British Columbia central coast, Canada. Luminescence and Electron Spin Resonance Dating Conference 2014, Montreal, PQ (poster).
- Neudorf, C.M., Lian, O.B., Walker, I.J., **Shugar, D.H.**, ^oEamer, J.B.R., and Griffin, L., 2014. Refining luminescence dating procedures for feldspar on Calvert Island, British Columbia central coast, Canada. Hakai Research Symposium, Victoria, BC (poster).
- Neudorf, C.M., Lian, O.B., Walker, I.J., **Shugar, D.H.**, ^oEamer, J.B.R., and Griffin, L., 2014. Toward a luminescence chronology for coastal dune and beach deposits on Calvert Island, British Columbia central coast, Canada. Hakai Research Symposium, Victoria, BC (oral).
- **Shugar, D.H.**, McLaren, D., Walker, I.J., Lian, O.B., ^oEamer, J.B.R., Neudorf, C.M., and Fedje, D., 2014. Post-glacial sea levels in Pacific North America – hinge zones and human occupation. American Quaternary Association Meeting, Seattle (poster).
- **Shugar, D.H.**, McLaren, D., Walker, I.J., Lian, O.B., ^oEamer, J.B.R., Neudorf, C.M., and Fedje, D., 2014. Post-glacial sea levels in Pacific North America – hinge zones and human occupation. Hakai Research Symposium, Victoria, BC (poster).
- **Shugar, D.H.**, Walker, I.J., Lian, O.B., ^oEamer, J.B.R., Neudorf, C.M., McLaren, D., and Fedje, D., 2014. The past 18,000 years of sea-level change in Pacific North America. Geological Society of America Meeting, Vancouver, BC (oral).
- **Shugar, D.H.**, Walker, I.J., Lian, O.B., ^oEamer, J.B.R., Neudorf, C.M., McLaren, D., and Fedje, D., 2014. The past 18,000 years of sea-level change in Pacific North America. Canadian Association of Geographers, Western Division Meeting, Victoria, BC (oral).
- Clague, J.K., **Shugar D.H.**, Rabus, B.T., and Capps, D.M., 2013. The glaciological response of Black Rapids Glacier to the Denali earthquake rock avalanches. AGU Fall Meeting, San Francisco, CA (poster).
- **Shugar, D.H.**, Walker, I.J., Lian, O.B., ^oEamer, J.B.R., and Neudorf, C.M., 2013. Relative sea-level fluctuations since deglaciation in western North America. AGU Fall Meeting, San Francisco, CA (poster).
- ^oEamer, J.B.R., Walker, I.J., **Shugar, D.H.**, Lian, O.B., and Neudorf, C.M., 2013. Initial exploration of the late Quaternary evolution of Calvert Island, central coast, British Columbia. Canadian Quaternary Association, Edmonton, Canada (poster).
- Neudorf, C.M., Lian, O.B., Walker, I.J., **Shugar, D.H.**, and ^oEamer, J.B.R., 2013. Optical ages for stabilized coastal sand dune and beach deposits, northern Calvert Island, British Columbia central coast, Canada. Canadian Quaternary Association, Edmonton, Canada (oral).
- **Shugar, D.H.**, Clague, J.J., and McSaveney, M.J., 2013. Late Holocene behavior of Sheridan and Sherman glaciers, Chugach Mountains, Alaska. Canadian Quaternary Association, Edmonton, AB, (poster).
- **Shugar, D.H.**, Walker, I.J., Lian, O.B., ^oEamer, J.B.R., and Neudorf, C.M., 2013. Post-glacial relative sea-levels in western North America. Canadian Quaternary Association, Edmonton, Canada (oral).
- **Shugar, D.H.**, 2012. Geomorphic history of Calvert Island. Hakai Research Symposium, Simon Fraser University, Burnaby, BC (oral).
- **Shugar, D.H.**, Clague, J.J., and Giardino, M., 2011. A quantitative assessment of the sedimentology and geomorphology of rock avalanche deposits. 2nd World Landslide Forum, Rome, Italy (poster).
- Newman, S., Clague, J., Rabus, B., and **Shugar, D.H.**, 2010. Investigation of a slowly deforming, glacially debuttressed rock slope in the Alaska Range using InSAR, LiDAR and 2D numerical modeling. AGU Fall Meeting, San Francisco, CA (poster).
- **Shugar, D.H.**, and Clague, J.J. 2009. The sedimentology of rock avalanches on glaciers in Alaska. Canadian Quaternary Association, Simon Fraser University, Vancouver, BC (oral).
- **Shugar, D.H.** and Rabus, B.T., 2009. Preliminary In(SAR)sights into the effects of landslides on Black Rapids Glacier, AK. Northwest Glaciologists, Vancouver, BC (oral).

- **Shugar, D.H.**, Rabus, B.T., and Clague, J.J., 2009. A new InSAR-derived DEM of Black Rapids Glacier. AGU Fall Meeting, San Francisco, CA (poster).
- Kostaschuk, R., **Shugar, D.**, Best, J.L., Parsons, D.R., Lane S.N., and Hardy, R.J. 2008. Suspended sediment transport over a dune. Marine Sand-wave and River Dune Dynamics III. University of Leeds, UK (oral).
- Parsons, D.R, **Shugar, D.H.**, Best, J.L., Hardy, R.J., Kostaschuk, R.A., Lane, S.N., and Orfeo, O., 2007. Links between flow structure and suspended sediment over sand dunes revealed using phase coherence wavelet analysis. AGU Fall Meeting, San Francisco, CA (oral).
- **Shugar, D.H.**, and Clague, J.J., 2007. Ice-rafted landslide deposits versus ‘regular’ supraglacial debris – a problem for paleoclimatic reconstruction? AGU Fall Meeting, San Francisco, CA (poster).
- **Shugar, D.H.**, and Rabus, B., 2007. InSAR measurements and ice dynamic modeling of Black Rapids Glacier following the 2002 Denali earthquake landslides. Northwest Glaciologists, Portland, OR (oral).
- **Shugar, D.H.**, Rabus, B., Flowers, G.E., and Clague, J.J., 2007. Dynamic response of a surge-type glacier to rock avalanche loading. GSA, Cordilleran Meeting, Bellingham, WA (oral).
- Parsons, D., Best, J.L., Lane S.N., Kostaschuk R.A., Orfeo O., **Shugar, D.H.**, and Hardy, R., 2005. Morphology, flow and sediment transport over a natural dune field: Rio Paraná, Argentina. British Sedimentological Research Group, Durham University, UK (oral).
- **Shugar, D.H.**, Kostaschuk, R., Best, J.L., Lane, S.N., Parsons, D. R., Orfeo, O., and Hardy, R.J., 2005. The evolution of coherent flow structures over dunes, Paraná River, Argentina. 8th International Conference on Fluvial Sedimentology, Delft, The Netherlands (oral).
- **Shugar, D.H.**, and Kostaschuk, R., 2005. The evolution of coherent flow structures over dunes in an alluvial channel, Paraná River, Argentina. Canadian Association of Geographers, University of Western Ontario, London, ON (oral).
- Kostaschuk, R.A., **Shugar, D. H.**, Ashmore, P., Desloges, J., and Burge, L., 2005. *In-situ* Jet-Testing and Erosion of Cohesive Streambeds in an Urbanized Channel: Fletcher’s Creek, Ontario. Canadian Assn of Geographers, U Western Ontario, London, ON (oral).
- **Shugar, D.H.**, 2004. Erodibility of cohesive streambeds, Fletcher’s Creek, southern Ontario. Canadian Association of Geographers, Ontario, University of Waterloo, Waterloo, ON (oral).
- **Shugar, D.H.**, and Burn, C.R., 2003. Ground ice in peat, Central Yukon. Canadian Association of Geographers, Ontario, Queen’s University, Kingston, ON (oral).

Public/University Seminars

- Cook, K., and **Shugar, D.** 2023. The Shovi landslide disaster. Parliament of Georgia (closed session).
- **Shugar, D.H.** 2023. Strange things done in the midnight sun by the men who toil for gold. Banquet keynote lecture, Alberta Society for Human Toxicology, Canmore, Canada.
- **Shugar, D.H.** 2022. What has EO done for us anyway? Snapshots of steep terrain and Glaciers. Internal Earth Week seminar for Planet Labs, San Francisco.
- **Shugar, D.H.** 2021. Mountain hazards cascades in North America and High Mountain Asia. Gallagher Lecture Series, University of Calgary, Canada
- **Shugar, D.H.** 2021. What happened at Chamoli? University of Nevada, Las Vegas, USA
- **Shugar, D.H.** 2021. What happened at Chamoli? University of Illinois, USA
- **Shugar, D.H.** 2021. What happens to rivers when you turn up (or down) the taps? ETH, Zurich, Switzerland
- **Shugar, D.H.** 2021. What happens to rivers when you turn up (or down) the taps? GSC Atlantic, Canada
- **Shugar, D.H.** 2020. What’s happening to the world’s glacial lakes? Arizona State University, USA
- **Shugar, D.H.** 2020. Where are the world’s glacial lakes? Simon Fraser University, Canada
- **Shugar, D.H.** 2020. Where (and how big) are the world’s glacial lakes? Alberta Environment and Parks, Office of the Chief Scientist Science Seminar, Canada
- **Shugar, D.H.** 2019. Where (and how big) are the world’s glacial lakes? University of Calgary, Canada
- **Shugar, D.H.** 2019. Changing glaciers, changing landscapes. Arctic on the Edge symposium, University of Calgary, Canada

- **Shugar, D.H.** 2019. Where are the world's glacial lakes? University of Toronto Mississauga, Canada
- **Shugar, D.H.** 2018. Changing glaciers, changing rivers: an update from the St Elias Mountains. Yukon Science Institute, Destruction Bay, YT, Canada
- **Shugar, D.H.** 2018. Changing glaciers, changing rivers: an update from the St Elias Mountains. Yukon Science Institute, Haines Junction, YT, Canada
- **Shugar, D.H.**, 2018. The evolving hazards landscape in western North America. Simon Fraser University, Burnaby, Canada
- **Shugar, D.H.**, 2018. Rapid Geomorphic Change in mountain environments. University of Calgary, Canada
- **Shugar, D.H.** and Lipovsky, P., 2018. Changing glaciers, changing rivers: an update from the St Elias Mountains. Yukon Science Institute, Whitehorse, YT, Canada
- **Shugar, D.H.**, 2018. A tale of two glaciers: rapid geomorphic evolution in the face of climate change. University of Victoria, Canada
- **Shugar, D.H.** 2017. Inspector Kaskawulsh and the Case of the Disappearing River. 'Sigma Gamma Epsilon National Honor Society' seminar series, University of Puget Sound, Tacoma, USA
- **Shugar, D.H.** 2017. Inspector Kaskawulsh and the Case of the Disappearing River. 'Thursday Nights at the Zoo' seminar series, Point Defiance Zoo, Tacoma, USA
- **Shugar, D.H.**, 2017. Rapid Geomorphic Change in the high mountains. University of Northern British Columbia, Prince George, Canada
- **Shugar, D.H.**, 2016. Induced Geohazards from the 2015 Gorkha Earthquake, Nepal. Department of Earth and Space Sciences seminar series, University of Washington, Seattle, USA
- **Shugar, D.H.**, 2016. Induced Geohazards from the 2015 Gorkha Earthquake, Nepal. USGS Washington Water Science Center seminar series, Tacoma, USA
- **Shugar, D.H.**, 2016. Mapping sea level change in the Pacific Northwest. Marine Geology and Geophysics seminar series, University of Washington, Seattle, USA
- **Shugar, D.H.**, 2015. Mapping sea level change in the Pacific Northwest. University of Washington 'Water Seminar', Seattle, USA
- **Shugar, D.H.**, 2014. 18,000 years of sea-level change in Pacific North America. Geography Department seminar series, Durham University, UK
- **Shugar, D.H.**, 2014. 18,000 years of sea-level change in Pacific North America. Interdisciplinary Arts and Sciences seminar series, University of Washington Tacoma, USA.
- **Shugar, D.H.**, 2014. 18,000 years of sea-level change in Pacific North America – and other stories. School of Natural Resources & Extension seminar series, University of Alaska Fairbanks, USA
- **Shugar, D.H.**, 2013. From mountains to the sea: geohazards and environmental change in western North America. Earth Sciences Department seminar series, Montana State University, Bozeman, USA
- **Shugar, D.H.**, Walker, I., Lian, O., ^oEamer, J., and Neudorf, C., 2013. 15,000 years of landscape change at Calvert Island. Hakai Institute Community Meeting, Bella Bella, Canada
- Walker, I., Lian, O., Neudorf, C., **Shugar, D.H.**, ^oEamer, J., and Griffin, L., 2013. Landscape and sea level changes on Calvert Island. Seminar series, Hakai Beach Institute, Calvert Island, Canada
- ^oEamer, J.B.R., Walker, I.J., **Shugar, D.H.**, Lian, O.B., 2012. Changing Landscape: Earth Sciences. Hakai Institute Community Meeting, Bella Bella, Canada
- Walker, I.J., Lian, O., **Shugar, D.H.**, ^oEamer, J.B.R., Mackovic, B., and Huesken, D., 2012, Exploring the prehistory of Calvert Island with grains of sand. Hakai Beach Institute seminar series, Calvert Island, Canada
- **Shugar, D.H.**, 2011. Physical geography and environmental analysis: recent trends and future directions. Geography Department seminar series, University of Guelph, Guelph, Canada
- **Shugar, D.H.**, 2011. Rock avalanches on glaciers: sedimentology, geomorphology, glaciology. Geological Survey of Norway (NGU) seminar series, Trondheim, Norway
- **Shugar, D.H.**, 2010. Black Rapids Glacier and the Denali Earthquake landslides. Macdonald Dettwiler and Associates Ltd., R&D seminar, Burnaby, Canada
- **Shugar, D.H.**, 2009. A brief history of Black Rapids Glacier, AK (1936-present). Department of Geography and

Environmental Science seminar series, Carleton University, Ottawa, Canada

- **Shugar, D.H.**, 2009. On rock on ice: the sedimentology of rock avalanches on glaciers. Earth Sciences departmental seminar, Simon Fraser University, Burnaby, Canada
- **Shugar, D.H.**, and Rabus, B.T., 2009. Landslides on glaciers: insights from InSAR. Macdonald Dettwiler and Associates Ltd, R&D Open House, Burnaby, BC
- **Shugar, D.H.**, 2008. Crumbling mountains: landslides on glaciers in BC and Alaska. The Explorers Club Salt Spring Symposium. Salt Spring Island, Canada
- **Shugar, D.H.**, 2008. Flow over a dune, Parana River, Argentina. Earth Sciences departmental seminar, Simon Fraser University, Burnaby, Canada
- **Shugar, D.H.**, 2007. What I did for my summer vacation: thoughts about geography as a career choice. Seminar for grade 10 geography students, Gloucester High School, Ottawa, Canada
- **Shugar, D.H.**, Rabus, B.T., Flowers, G., and Clague, J.J., 2007. Dynamic response of a surge-type glacier to rock avalanche loading: revisiting Tarr and Martin's earthquake advance theory. Earth Sciences departmental seminar, Simon Fraser University, Burnaby, Canada
- **Shugar, D.H.**, and Capps, D., 2006. Things that go boom in the night: glacier science and glacier scenery in the St. Elias Mountains. National Park Service 'Ranger Talks', Glacier Bay National Park, Gustavus, USA

RESEARCH GRANTS, FELLOWSHIPS AND AWARDS

Current Research Grants and Awards (>\$5,000, CAD unless otherwise noted)

- 2024-2025. Canadian Space Agency Research Opportunities in Space Sciences. "High High-Latitude Lake and River Dynamics: Resources, Hazards, and Climate Change"; Sole PI; \$75,000.
- 2023-2026 NASA ROSES NNH22ZDA001N-ICESAT2. "High-Latitude Lake and River Dynamics: Resources, Hazards, and Climate Change"; co-I (unfunded collaborator) of six senior personnel; \$450,000 USD.
- 2023-2025 NSERC Alliance - Alberta Innovates Advance Program. "Evolution and morphodynamics of proglacial environments"; Sole PI; \$40,000.
- 2022-2024 NSERC Research Tools and Instruments "A helicopter-borne radar system for Canadian glacier mass assessment"; co-I of five senior personnel; \$149,189.
- 2022-2024 University of Calgary Eyes High Postdoctoral Scholar (Matching Program). \$100,000.
 - One \$50k award to support Dr Aram Fathian
 - One \$50k award to support Dr Celeste Labeledz
- 2021-24 Canada Foundation for Innovation John R. Evans Leaders Fund "High-resolution mapping of the Earth's surface"; Sole PI; \$603,980.
- 2020-25 NSERC Discovery Grant "Evolution and morphodynamics of proglacial environments"; Sole PI; \$187,500.

Past Research Grants and Awards (>\$5,000)

- 2022-2023 Yukon Geological Survey "Geologic History and Hazard Assessment of the Sunnydale Slide"; Joint application with MSc student; \$42,297.
- 2020-23 NSERC Discovery Accelerator Supplement "Evolution and morphodynamics of proglacial environments"; Sole PI; \$120,000.
- 2020-23 Tula Foundation "Environmental Change in the Owikeno Lake Watershed"; Co-I of three senior personnel; \$279,000 (Shugar \$161,000).
- 2021-22 UK Natural Environment Research Council 'Urgency Grant'. "Rapid adjustments to catchment sediment yield following a catastrophic rock-ice avalanche and debris flow, Uttarakhand, India". Collaborator on team of four senior personnel; £46,540.
- 2021-22 UK Natural Environment Research Council 'Urgency Grant'. "How efficient is organic carbon burial in marine fjords after extremely large and infrequent glacial outburst floods". Collaborator on team of 14 senior personnel; £65,000.
- 2020-22 Anonymous Donor/Foundation "Will climate change lead to a return of sockeye salmon in Alsek

- River?"; Anonymous Donor; Sole PI; \$10,000.
- 2021-22 Polar Continental Shelf Program "Tweedsmuir Glacier and the end of Alsek River's migratory sockeye salmon run"; Sole PI; \$44,164.
 - 2021-22 Mitacs-UKRI UK-Canada Doctoral Exchange Scheme "Next-generation forecasting of hazards offshore from river deltas" Co-I of two senior personnel; £15,000.
 - 2021-22 Polar Continental Shelf Program "Tweedsmuir Glacier and the end of Alsek River's migratory sockeye salmon run"; Sole PI; \$31,351.
 - 2020-21 Alpine Club of Canada Environment Grant "Will sockeye salmon return to the upper Alsek watershed under a changing climate?"; Sole PI; \$5,000.
 - 2020-21 Mitacs-UKRI UK-Canada Doctoral Exchange Scheme "Modelling glacial overdeepenings and future lake locations for the western Canadian Cordillera" Co-I of two senior personnel; £15,500.
 - 2020-21 Polar Continental Shelf Program "Tweedsmuir Glacier and the end of Alsek River's migratory sockeye salmon run"; Sole PI; \$32,000.
 - 2019-20 Polar Continental Shelf Program "Prospecting for a buried paleo-channel, Tweedsmuir Glacier, northern British Columbia"; Sole PI; \$14,400.
 - 2015-18 NSF Major Research Instrumentation "Acquisition of a shallow-water autonomous multibeam hydrographic surveying system"; Sole PI; \$250,990 USD.
 - 2016-18 NASA Understanding Changes in High Mountain Asia "Interlinked Glacier Dynamics, Lakes, Mountain Hazards, and Critical Vulnerabilities in the Himalaya"; Co-I of 4 senior personnel; \$698,486 USD (Shugar \$77,528).
 - 2017-18 University of Washington Tacoma Scholarship and Teaching Funds "Geomorphology of a coastal lake, British Columbia"; Sole PI; \$5,000 USD.
 - 2016-18 University of Washington Royalty Research Fund "Morphology, flow and sediment transport in the proglacial Slims River, Yukon, Canada"; Sole PI; \$38,840.
 - 2016-17 NSF Geomorphology and Landuse Dynamics "The 2015 Taan Fjord landslide tsunami: An interdisciplinary study of cause & effect"; Co-I of 6 senior personnel; \$323,630 USD (Shugar \$34,761).
 - 2016-17 National Geographic Society/Waitt Foundation "Natural hazard processes facing mountain villages in Sapta Koshi basin, eastern Nepal"; Co-I of 6 senior personnel; \$15,000 USD.
 - 2013-14 Yukon Geological Survey "High-resolution bathymetric mapping and hazards identification, Kluane Lake, Yukon Territory"; Sole PI; \$10,000.
 - 2012-13 Mitacs Elevate Postdoctoral Fellowship "Holocene sea-level history and environmental change, Calvert Island, BC"; \$122,500.
 - 2011-12 UK Royal Society Newton International Postdoctoral Fellowship (Oxford University) "Field characterization of dust emissions for climate modelling: turbulence as erosivity driver"; £66,000; Declined the offer.
 - 2011-13 Pacific Institute for Climate Solutions "Assessing the potential aquatic habitat value of streams responding to a changing climate"; Co-I of 3 senior personnel; \$50,000.
 - 2006-09 NSERC Postgraduate Scholarships 'D'; Graduate Fellowship "Large catastrophic landslides on glaciers, Coast and St. Elias Mountains"; \$63,000.

PROFESSIONAL SERVICE

- Director, Environmental Science Program, University of Calgary (2019-present)
 - This role includes a wide variety of tasks, including student advising, teaching assignments, organizing new student orientation and Open Houses, organizing and facilitating ENSC program meetings, etc.
- Conference co-convenor including American Geophysical Union (2019); Canadian Association of Geographers (Western Division) (2014); Canadian Geophysical Union (2008; 2017); Canadian Quaternary Association (2009); European Geophysical Union (2021); Geological Society of America (2014); NASA High Mountain Hazards Workshop (2016)

- Conference organizing committee: Canadian Quaternary Association (2009), SFU, Burnaby, Canada
- Member, UofC, Department of Geoscience Strategic Priorities Committee (2022-2023)
- Member, UofC, Faculty of Science Equity, Diversity, and Inclusion Committee (2022-2023)
- Co-chair, UofC, Department of Geoscience Equity, Diversity, and Inclusion workgroup (2020-2023)
- Chair, UofC, Department of Earth, Energy, and Environment Field School Committee (2024-present)
- Member, UofC, Faculty of Science, International Engagement Committee (2019-2021)
- Member, UofC, VPR SUPPORT Research Awards Committee (2021-present)
- Canadian Geomorphological Research Group Member-at-Large (2013-present)
- Scientific Editor, *J. Glaciology* (2017-2024)
- Guest Editor (Geohazards & Risks in High Mountain Regions), *Frontiers in Earth Science* (2020-2021)
- Guest Editor (Earth Surface Processes and Climate Change at the Earth's Three Poles), *Earth Surface Processes & Landforms* (2023-2024)
- Reviewer for journals, publishers: *The Cryosphere*; *Canadian Journal of Earth Science*; *Earth Surface Processes & Landforms*; *Environmental Management*; *Geological Society of London*; *Geomorphology*; *Geophysical Research Letters*; *Government of Canada - Natural Resources Canada*; *Global Planetary Change*; *J. Geophysical Research*; *J. Glaciology*; *J Rock Mechanics and Geotechnical Engineering*; *Land Degradation & Development*; *Landslides*; *Natural Hazards and Earth System Sciences*; *Nature*; *Nature Communications*; *Quaternary Research*; *Quaternary Science Reviews*; *Regional Environmental Change*; *Remote Sensing of Environment*; *Water Resources Research*
- Reviewer for funding agencies: *Canada Foundation for Innovation*; *German Research Foundation (DFG)*; *Geological Survey of Denmark and Greenland*; *Mitacs*; *National Geographic*; *National Science Foundation*; *Natural Sciences and Engineering Research Council of Canada*
- Supervisory activities
 - Postdoctoral scholars
 - Dr Celeste Labeledz (May 2022-June 2024) Funded by U Calgary Eyes High and NSERC Discovery Accelerator Supplement
 - Dr Lewis Bailey (June 2022-May 2025), co-advised by Shugar and Dr Hubbard, Department of Geoscience
 - Dr Aram Fathian (Sept 2022-Apr 2025) Funded by UCalgary Eyes High & Canadian Space Agency
 - Dr Michael Tilston (Feb 2021-Mar 2023) Funded by Tula Foundation grant
 - PhD
 - Kristina Miller (in progress), UofC Geography, Committee member
 - Rebecca Englert (defended 2022), UofC Geoscience, Committee member
 - Lewis Bailey (PhD exchange summer 2021), UofC Geoscience, Exchange supervisor
 - Aram Fathian (PhD exchange), UofC Geoscience, Exchange supervisor
 - Ethan Lee (PhD exchange summer 2021), UofC Geoscience, Exchange supervisor
 - Sarah St Germain (defended 2021), UofC Geography, Internal examiner
 - Ben Daniels (defended 2019), UofC Geoscience, Internal examiner
 - Jordan Eamer (defended 2017), UVic Geography, Committee member
 - MSc
 - Michael Thiel (started fall 2023), UofC Earth, Energy, and Environment, Supervisor
 - Luc van Dijk (Msc exchange summer 2023), UofC Geoscience, Exchange supervisor
 - Holly Basiuk (started fall 2022), UofC Geoscience, Supervisor
 - Tek Kshetri (started fall 2022), UofC Geoscience, Supervisor
 - Jackson Bodtker (started fall 2021), UofC Geoscience, Supervisor
 - Meghan Sharp (defended 2021), UofC Geoscience, Supervisor
 - Gryphen Goss (defended 2021), UofC Geoscience, Supervisor
 - Naomi Ochwat (defended 2019), UofC Geography, Internal examiner
 - BSc

- Ava Keerak (2024), UofC Earth, Energy, and Environment, Supervisor
- Parke Fontaine (2024), UofC Earth, Energy, and Environment, Supervisor
- Annika Richardson (2023), UofC Geoscience, Supervisor
- Jenna Merth (2021), UofC Environmental Science, 2nd reader
- Liam Mesebius (2021), UofC Environmental Science, 2nd reader
- Hannah Muncal (2021), UofC Environmental Science, 2nd reader
- Szymon Kijak (2021) UofC Geoscience, Supervisor
- Holly Basiuk (2020), UofC Environmental Science, Supervisor
- Sasha Bogdanov (2020), UofC Environmental Science, 2nd reader
- Lacey Roberts (2020), UofC Environmental Science, Co-supervisor
- John Haas (2018), UWT Environmental Science, Supervisor
- Doug Bonno (2018), UWT Environmental Science, Supervisor
- Tim Lane (2018), UWT Environmental Science, Supervisor
- Joey Bell (2017), UWT Environmental Science, Co-supervisor
- Yon Henderson (2017), UWT Environmental Science, Supervisor
- Katie Kennedy (2017), UWT Environmental Science, Supervisor
- Heather Rawley (2016), UWT Environmental Science, Supervisor
- Research Associate
 - Aaron Burr (2018), NASA-funded, Supervisor
 - Annika Richardson (2023), NSERC USRA, Supervisor
 - Holly Basiuk (2021, 2022), NSERC USRA, Supervisor
 - Szymon Kijak (2021), Supervisor

Outreach and Science Communication

Dr. Shugar has conducted hundreds of media interviews for print (*New York Times*, *The Guardian*, *Washington Post*, *Hindustan Times*, *Times of India*, *Der Spiegel*, *Globe and Mail*, *National Post*, *Geographical Magazine*, *Scientific American*, etc.), radio (BBC Science in Action, CBC The Current, CBC Quirks and Quarks, CBC What on Earth, Australian Broadcasting Corporation, Al Jazeera, etc.), web (Hakai Magazine, Carbon Brief, etc.), and television shows (Daily Planet). He has appeared in multiple documentaries (e.g. Icy Bay Mega Tsunami, <https://vimeo.com/200910490>; Bare Earth: When a Landslide Triggers a Tsunami, <https://www.youtube.com/watch?v=w120dWPIEX0>) for broadcast and web and has been featured on NASA Earth Observatory's 'Image of the day' on multiple occasions. Below highlights the breadth of his significant outreach:

Discovery of Nun Cho Ga – Dr. Shugar and two of his graduate students were part of the scientific team that recovered the mummified mammoth named Nun Cho Ga ('big baby animal' in Han language) near Dawson City, Yukon, in 2022. His [tweets](#) about the discovery have garnered well over a million views. The story was picked up by national and international news outlets:

- [Gizmodo](#) (a US design, technology, science and science fiction website, article interviewed Dr. Shugar and one of his students)
- [The Telegraph](#) (a national British daily newspaper and website; article highlights Dr. Shugar's Tweets)
- [NBC News](#) (is the news division of the American broadcast television network NBC; Dr. Shugar is named in the title of the article)
- [CBC News](#) (a national Canadian news outlet; UofC is mentioned)

Chamoli landslide, India – Dr. Shugar led a large, international team of researchers in understanding the processes that resulted in a deadly debris flow in the Indian Himalaya in 2021. He did many dozens of media interviews in the days following the disaster and following publication of his paper in *Science* several months later.

- [Twitter](#) (this thread reflects outreach in the hours following disaster)

- [Twitter](#) (this thread follows the publication of paper in *Science*)
- [Scientific American](#) (is an American popular science magazine; Dr. Shugar is quoted and named)
- [Al Jazeera](#) (is the Arabic-language media company; Dr. Shugar is named and his Tweets are highlighted)
- [BBC Science in Action](#) (UK media company; this is an interview with BBC)
- [CBC What on Earth](#) (a podcast produced by CBC; interview with Dr. Shugar)
- [NASA Earth Observatory](#) (an online publishing outlet for NASA; Dr. Shugar is named, quoted, and cited)

River Piracy in Yukon – Dr. Shugar led a ground-breaking study of a rare instance of ‘river piracy’, or stream capture, where the flow of one river was redirected into a different river due to climate change-induced glacier retreat.

- [NASA Earth Observatory](#) (an online publishing outlet for NASA; Dr. Shugar is named and quoted)
- [ABC News](#) (public news service produced by the Australian Broadcasting Corporation; Dr. Shugar is named and quoted)
- [BBC News](#) (is a UK media company; Dr. Shugar is named and quoted)
- [The Guardian](#) (is a British news and media website and newspaper; Dr. Shugar is named and quoted)
- [CBC The Current](#) (is a Canadian current affairs radio program; interview with Dr. Shugar about his *Nature Geoscience* publication – transcript linked)