

List of publications in 2020 due to GEF equipment loans

Journal Articles

1. Behm, M., Walter, J.I., Binder, D., Cheng, F., Citterio, M., Kulesa, B., Langley, K., Limpach, P., Mertl, S., Schoner, W., Tamstorf, M. and Weyss, G., **2020**, Seismic characterization of a rapidly-rising jokulhlaup cycle at the A.P. Olsen Ice Cap, NE-Greenland, *Journal of Glaciology*, 66(256), p329-347, doi: 10.1017/jog.2020.9, (GEF Loan 995)
2. Brisbourne, A., Kulesa, B., Hudson, T., Harrison, L., Holland, P., Luckman, A., Bevan, S., Ashmore, D., Hubbard, B., Pearce, E., White, J., Booth, A., Nicholls, K. and Smith, A., **2020**, An updated seabed bathymetry beneath Larsen C Ice Shelf, Antarctic Peninsula, *Earth System Science Data*, 12(2), p887-896, doi: 10.5194/essd-12-887-2020, (GEF Loan 1060)
3. Corti, G., Sani, F., Florio, A.A., Greenfield, T., Keir, D., Erbello, A., Muluneh, A.A. and Ayele, A., **2020**, Tectonics of the Asela-Langano Margin, Main Ethiopian Rift (East Africa), *Tectonics*, 39(8), doi: 10.1029/2020TC006075, (GEF Loan 1037)
4. Cunliffe, A.M., J Assmann, J., N Daskalova, G., Kerby, J.T. and Myers-Smith, I.H., **2020**, Aboveground biomass corresponds strongly with drone-derived canopy height but weakly with greenness (NDVI) in a shrub tundra landscape, *Environmental Research Letters*, 15(12), p125004, doi: 10.1088/1748-9326/aba470, (GEF Loans 1063, 1069)
5. Davy, R.G., Collier, J.S., Henstock, T.J. and The VoiLA Consortium, **2020**, Wide-Angle Seismic Imaging of Two Modes of Crustal Accretion in Mature Atlantic Ocean Crust, *Journal of Geophysical Research: Solid Earth*, 125(6), doi: 10.1029/2019JB019100, (GEF Loan)
6. Dingle, E., Creed, M., Sinclair, H., Gautam, D., Gourmelen, N., Borthwick, A. and Attal, M., **2020**, Dynamic flood topographies in the Terai region of Nepal, *Earth Surface Processes and Landforms*, 45(13), p3092-3102, doi: 10.1002/esp.4953, (GEF Loan 1088)
7. Dingle, E.H., Sinclair, H.D., Venditti, J.G., Attal, M., Kinnaird, T.C., Creed, M., Quick, L., Nittrouer, J.A. and Gautam, D., **2020**, Sediment dynamics across gravel-sand transitions: Implications for river stability and floodplain recycling, *Geology*, 48(5), p468-472, doi: 10.1130/G46909.1, (GEF Loan 1088)
8. Dube, J., Darbyshire, F.A., Liddell, M.V., Stephenson, R. and Oakey, G., **2020**, Seismic anisotropy of the Canadian High Arctic: Evidence from shear-wave splitting, *Tectonophysics*, 789, p228524, doi: 10.1016/j.tecto.2020.228524, (GEF Loan 900)
9. Dunham, C.K., O'Donnell, J.P., Stuart, G.W., Brisbourne, A.M., Rost, S., Jordan, T.A., Nyblade, A.A., Wiens, D.A. and Aster, R.C., **2020**, A joint inversion of receiver function and Rayleigh wave phase velocity dispersion data to estimate crustal structure in West Antarctica, *Geophysical Journal International*, 223(3), p1644-1657, doi: 10.1093/gji/ggaa398, (GEF Loan 1002)
10. Fyffe, C.L., Woodget, A.S., Kirkbride, M.P., Deline, P., Westoby, M.J. and Brock, B.W., **2020**, Processes at the margins of supraglacial debris cover: Quantifying dirty ice ablation and debris redistribution, *Earth Surface Processes and Landforms*, 45(10), p2272-2290, doi: 10.1002/esp.4879, (GEF Loan 1087)
11. Gastineau, R., Conway, S.J., Johnsson, A., Eichel, J., Mangold, N., Grindrod, P.M. and Izquierdo, T., **2020**, Small-scale lobate hillslope features on Mars: A comparative 3D morphological study with terrestrial solifluction lobes and zebra stripe lobes, *Icarus*, 342, p113606, doi: 10.1016/j.icarus.2019.113606, (GEF Loan 1030)
12. Greenfield, T., White, R.S., Winder, T. and Agustsdottir, T., **2020**, Seismicity of the Askja and Bardarbunga volcanic systems of Iceland, 2009–2015, *Journal of Volcanology and Geothermal Research*, 391, p106432, doi: 10.1016/j.jvolgeores.2018.08.010, (GEF Loans 857, 914, 968, 980, 1022)
13. Grund, M. and Ritter, J.R.R., **2020**, Shear-wave splitting beneath Fennoscandia — evidence for dipping structures and laterally varying multilayer anisotropy, *Geophysical Journal International*, 223(3), p1525-1547, doi: 10.1093/gji/ggaa388, (GEF Loan 959)
14. Hammond, J.O.S., Wu, J., Ri, K., Wei, W., Yu, J. and Oppenheimer, C., **2020**, Distribution of Partial Melt Beneath Changbaishan/Paektu Volcano, China/Democratic People's Republic of Korea, *Geochemistry, Geophysics, Geosystems*, 21(1), doi: 10.1029/2019GC008461, (GEF Loan 976)
15. Hejrani, B., Balling, N., Jacobsen, B.H. and Nielsen, S.B., **2020**, Is High Topography Around the North Atlantic Supported From the Upper Mantle?, *Journal of Geophysical Research: Solid Earth*, 125(9), doi: 10.1029/2020JB019808, (GEF Loan 959)

16. Hudson, T.S., Brisbourne, A.M., Walter, F., Gräff, D., White, R.S. and Smith, A.M., **2020**, Icequake Source Mechanisms for Studying Glacial Sliding, *Journal of Geophysical Research: Earth Surface*, 125(11), doi: 10.1029/2020JF005627, (GEF Loan 852)
17. Hudson, T.S., Brisbourne, A.M., White, R.S., Kendall, J.M., Arthern, R. and Smith, A.M., **2020**, Breaking the Ice: Identifying Hydraulically Forced Crevassing, *Geophysical Research Letters*, 47(21), doi: 10.1029/2020GL090597, (GEF Loan 1022)
18. Killingbeck, S.F., Booth, A.D., Livermore, P.W., Bates, C.R. and West, L.J., **2020**, Characterisation of subglacial water using a constrained transdimensional Bayesian transient electromagnetic inversion, *Solid Earth*, 11(1), p75-94, doi: 10.5194/se-11-75-2020, (GEF Loan 1090)
19. King, O., Turner, A.G., Quincey, D.J. and Carrivick, J.L., **2020**, Morphometric evolution of Everest region debris-covered glaciers, *Geomorphology*, 371, p107422, doi: 10.1016/j.geomorph.2020.107422, (GEF Loans 1050, 1058, 1065)
20. Kounoudis, R., Bastow, I.D., Ogden, C.S., Goes, S., Jenkins, J., Grant, B. and Braham, C., **2020**, Seismic Tomographic Imaging of the Eastern Mediterranean Mantle: Implications for Terminal-Stage Subduction, the Uplift of Anatolia, and the Development of the North Anatolian Fault, *Geochemistry, Geophysics, Geosystems*, 21(7), doi: 10.1029/2020GC009009, (GEF Loan 1061)
21. Lapins, S., Kendall, J.M., Ayele, A., Wilks, M., Nowacki, A. and Cashman, K.V., **2020**, Lower-Crustal Seismicity on the Eastern Border Faults of the Main Ethiopian Rift, *Journal of Geophysical Research: Solid Earth*, 125(8), doi: 10.1029/2020JB020030, (GEF Loan 962)
22. Lucas, E.M., Soto, D., Nyblade, A.A., Lloyd, A.J., Aster, R.C., Wiens, D.A., O'Donnell, J.P., Stuart, G.W., Wilson, T.J., Dalziel, I.W., Winberry, J.P. and Huerta, A.D., **2020**, P- and S-wave velocity structure of central West Antarctica: Implications for the tectonic evolution of the West Antarctic Rift System, *Earth and Planetary Science Letters*, 546, p116437, doi: 10.1016/j.epsl.2020.116437, (GEF Loan 1002)
23. Mauerberger, A., Maupin, V., Gudmundsson, O. and Tilmann, F., **2020**, Anomalous azimuthal variations with 360° periodicity of Rayleigh phase velocities observed in Scandinavia, *Geophysical Journal International*, 224(3), p1684-1704, doi: 10.1093/gji/ggaa553, (GEF Loan 959)
24. Mazzotti, G., Essery, R., Webster, C., Malle, J. and Jonas, T., **2020**, Process-Level Evaluation of a Hyper-Resolution Forest Snow Model Using Distributed Multisensor Observations, *Water Resources Research*, 56(9), doi: 10.1029/2020WR027572, (GEF Loan 1108)
25. Parnell-Turner, R., Sohn, R., Peirce, C., Reston, T., MacLeod, C., Searle, R. and Simao, N., **2020**, Seismicity trends and detachment fault structure at 13°N, Mid-Atlantic Ridge, *Geology*, 49(3), p320-324, doi: 10.1130/G48420.1, (GEF Loan)
26. Peirce, C., Robinson, A.H., Funnell, M.J., Searle, R.C., MacLeod, C.J. and Reston, T.J., **2020**, Magmatism versus serpentinization—crustal structure along the 13°N segment at the Mid-Atlantic Ridge, *Geophysical Journal International*, 221(2), p981-1001, doi: 10.1093/gji/ggaa052, (GEF Loan)
27. Petrescu, L., Stuart, G., Houseman, G. and Bastow, I., **2020**, Upper mantle deformation signatures of craton–orogen interaction in the Carpathian–Pannonian region from SKS anisotropy analysis, *Geophysical Journal International*, 220(3), p2105-2118, doi: 10.1093/gji/ggz573, (GEF Loans 795, 883)
28. Possee, D., Keir, D., Harmon, N., Rychert, C., Eakin, C., Rolandone, F., Leroy, S., Corbeau, J., Stuart, G., Boisson, D., Momplaisir, R. and Prépetit, C., **2020**, Spatial Variations in Crustal and Mantle Anisotropy Across the North American-Caribbean Boundary on Haiti, *Journal of Geophysical Research: Solid Earth*, 125(6), doi: 10.1029/2019JB018438, (GEF Loan 987)
29. Rezaeifar, M. and Kissling, E., **2020**, Regional 3-D lithosphere structure of the northern half of Iran by local earthquake tomography, *Geophysical Journal International*, 223(3), p1956-1972, doi: 10.1093/gji/ggaa431, (GEF Loan 746)
30. Robinson, A.H., Zhang, L., Hobbs, R.W., Peirce, C. and Tong, V.C.H., **2020**, Magmatic and tectonic segmentation of the intermediate-spreading Costa Rica Rift – a fine balance between magma supply rate, faulting, and hydrothermal circulation, *Geophysical Journal International*, doi: 10.1093/gji/ggaa152, (GEF Loan)
31. Ross, N. and Siegert, M., **2020**, Basal melting over Subglacial Lake Ellsworth and its catchment: insights from englacial layering, *Annals of Glaciology*, 61(81), p198-205, doi: 10.1017/aog.2020.50, (GEF Loans 838, 870)

32. Simao, N.M., Peirce, C., Funnell, M.J., Robinson, A.H., Searle, R.C., MacLeod, C.J. and Reston, T.J., **2020**, Three-dimensional P-wave velocity structure of oceanic core complexes at 13° N on the Mid-Atlantic Ridge, *Geophysical Journal International*, doi: 10.1093/gji/ggaa093, (GEF Loan)
33. Spallarossa, D., Cattaneo, M., Scafidi, D., Michele, M., Chiaraluce, L., Segou, M. and Main, I., **2020**, An automatically generated high-resolution earthquake catalogue for the 2016–2017 Central Italy seismic sequence, including P and S phase arrival times, *Geophysical Journal International*, 225(1), p555-571, doi: 10.1093/gji/ggaa604, (GEF Loans 1067, 1077)
34. Stott, E., Williams, R.D. and Hoey, T.B., **2020**, Ground Control Point Distribution for Accurate Kilometre-Scale Topographic Mapping Using an RTK-GNSS Unmanned Aerial Vehicle and SfM Photogrammetry, *Drones*, 4(3), p55, doi: 10.3390/drones4030055, (GEF Loan 1118)
35. Vestin, P., Molder, M., Kljun, N., Cai, Z., Hasan, A., Holst, J., Klemedtsson, L. and Lindroth, A., **2020**, Impacts of Clear-Cutting of a Boreal Forest on Carbon Dioxide, Methane and Nitrous Oxide Fluxes, *Forests*, 11(9), p961, doi: 10.3390/f11090961, (GEF Loan 933)
36. Westoby, M.J., Rounce, D.R., Shaw, T.E., Fyffe, C.L., Moore, P.L., Stewart, R.L. and Brock, B.W., **2020**, Geomorphological evolution of a debris-covered glacier surface, *Earth Surface Processes and Landforms*, 45(14), p3431-3448, doi: 10.1002/esp.4973, (GEF Loan 1087)
37. White, R.S., **2020**, Fire and fury in Iceland: tracking volcanic eruptions, *Transactions of the Leicester Literary & Philosophical Society*, 114, p19-22, (GEF Loans 980, 1022)
38. Wilks, M., Rawlinson, N., Kendall, J., Nowacki, A., Biggs, J., Ayele, A. and Wookey, J., **2020**, The Coupled Magmatic and Hydrothermal Systems of the Restless Aluto Caldera, Ethiopia, *Frontiers in Earth Science*, 8, doi: 10.3389/feart.2020.579699, (GEF Loan 962)
39. Williams, R., Bangen, S., Gillies, E., Kramer, N., Moir, H. and Wheaton, J., **2020**, Let the river erode! Enabling lateral migration increases geomorphic unit diversity, *Science of The Total Environment*, 715, p136817, doi: 10.1016/j.scitotenv.2020.136817, (GEF Loan 1100)

Conference Papers / Proceedings

1. Brisbourne, A., Smith, A., Murray, T., Schlegel, R., Nichols, K., Hodgson, D., Anandakrishnan, S. and Kufner, S., **2020**, Characterising the bed of Rutford Ice Stream, West Antarctica, using reflection seismic profiles, *Online, 4–8 May 2020, EGU General Assembly*, EGU2020-128, doi: 10.5194/egusphere-egu2020-12, (GEF Loan 1017)
2. Bacon, C., Gilligan, A., Rawlinson, N., Tongkul, F., Cornwell, D., Pilia, S., Volk, O. and Greenfield, T., **2020**, Seismicity of the Mt. Kinabalu fault system in Sabah, Borneo, revealed using waveform backprojection, *Online, 4–8 May 2020, EGU General Assembly*, EGU2020-20783, doi: 10.5194/egusphere-egu2020-20783, (GEF Loan 1038)
3. Bacon, C.A., Gilligan, A., Pilia, S., Cornwell, D.G., Tongkul, F. and Rawlinson, N., **2020**, Analysis of teleseismic shear-wave splitting in the post-subduction environment of Sabah, Borneo, *AGU Fall Meeting, Online, 1-17th December 2020*, DI029-0005, (GEF Loan 1038)
4. Delf, R., Bingham, R.G., Curtis, A., Singh, S., Schwarz, B. and Giannopoulos, A., **2020**, Automated estimation of englacial radar velocity from zero offset data; implications for glacier bed topography retrieval, *Online, 4–8 May 2020, EGU General Assembly*, EGU2020-20484, doi: 10.5194/egusphere-egu2020-20484, (GEF Loan 1094)
5. Graf, E., Sinclair, H. and Attal, M., **2020**, Where does all the gravel go? Tracking landslide sediment from the 2015 Gorkha earthquake along the Kosi River, Nepal, *Online, 4–8 May 2020, EGU General Assembly*, EGU2020-455, doi: 10.5194/egusphere-egu2020-455, (GEF Loans 1096, 1103, 1123)
6. Jacobs, K.M., Fry, B., Bell, R.E., Henrys, S.A., Fagereng, A., McNeill, L., Morgan, J.V., Warner, M., Luckie, T., Okaya, D.A., Lane, V. and Daly, D., **2020**, Initial Ambient Noise Tomography above a region of Slow-Slip, Hikurangi Margin, New Zealand, *AGU Fall Meeting, Online, 1-17th December 2020*, T017-0005, (GEF Loan 1039)
7. Pilia, S., Rawlinson, N., Tongkul, F., Gilligan, A. and Cornwell, D., **2020**, Preliminary results from teleseismic tomography of the upper mantle beneath northern Borneo, *Online, 4–8 May 2020, EGU General Assembly*, EGU2020-4148, doi: 10.5194/egusphere-egu2020-4148, (GEF Loan 1038)
8. Southern, E., Winder, T. and White, R.S., **2020**, Insights from an analogous eruption: Bardarbunga caldera collapse and re-inflation in Iceland during 2014-2019, *AGU Fall Meeting, Online, 1-17th December 2020*, Abstract 741469, (GEF Loans 980, 1022)

9. Southern, E.O., Winder, T.E.B. and White, R.S., **2020**, Bardarbunga Caldera Collapse and Re-inflation in Iceland During 2014-2019, *VMSG, Plymouth 2020*, (GEF Loans 980, 1022)
10. Volk, O., Bacon, C., Tongkul, F. and Rawlinson, N., **2020**, Crust and upper mantle structure of North Borneo explored using surface waves from ambient noise, *Online, 4–8 May 2020, EOS, Transactions, AGU, EGU2020-21108*, doi: 10.5194/egusphere-egu2020-21108, (GEF Loan 1038)
11. Watlet, A., Whiteley, J., Lane, V., Dashwood, B., Morgan, D., Chambers, J.E. and Lecocq, T., **2020**, Deployment of a long-term seismic network on a moisture-induced, slow moving, clay-rich landslide, *AGU Fall Meeting, Online, 1-17th December 2020, S021-0014*, (GEF Loan 1127)
12. Winder, T., Bacon C, Smith, J., Hudson, T., Greenfield, T. and White, R., **2020**, QuakeMigrate: a Modular, Open-Source Python Package for Automatic Earthquake Detection and Location, *AGU Fall Meeting, Online, 1-17th December 2020, S038-0013*, (GEF Loans 980, 1022)
13. Winder, T. and White, R.S., **2020**, Slowly migrating tectonic microearthquake swarms in the Icelandic Rift Zone: driven by pore-pressure or aseismic slip transients?, *Online, 4–8 May 2020, EGU General Assembly, EGU2020-19827*, doi: 10.5194/egusphere-egu2020-19827, (GEF Loans 968, 980, 1071)

PhD Theses

1. Al Zerouni, S., **2020**, Controls on decadal morphological change and sedimentary architecture of the wandering gravel-bed River Coquet, Northumberland, UK, *University of Newcastle*, (GEF Loan 1070)
2. Chambers, E.L., **2020**, Using surface waves to image melt migration pathways and storage beneath the northern East African Rift , *University of Southampton*, (GEF Loan 1037)
3. Delf, R., **2020**, Investigating the internal structure of glaciers and ice sheets using ice penetrating radar, *University of Edinburgh*, (GEF Loan 1094)
4. Donaldson, C.G., **2020**, Towards monitoring volcanoes in Iceland and Hawaii with seismic velocity variations, *University of Cambridge*, (GEF Loan 1071)
5. Goodwin, G.C.H., **2020**, High-resolution topography: tools and analysis of the life and death of salt marshes, *University of Edinburgh*, (GEF Loan 1091)
6. Killingbeck, S., **2020**, Characterisation of the subglacial environment using geophysical constrained Bayesian inversion techniques , *University of Leeds*, (GEF Loan 1090)
7. Possee, D.J., **2020**, Seismic imaging of the crust and upper mantle beneath Haiti and the Caribbean Sea, *University of Southampton*, (GEF Loan 987)
8. Volk, O., **2020**, Velocity and anisotropy structure of the Icelandic crust - An ambient seismic noise analysis, *University of Cambridge*, (GEF Loan 980)