

## List of publications in 2019 due to GEF equipment loans

### Journal Articles

1. Agustsdottir, T., Winder, T., Woods, J., White, R.S., Greenfield, T. and Brandsdottir, B., **2019**, Intense Seismicity During the 2014–2015 Bardarbunga-Holuhraun Rifting Event, Iceland, Reveals the Nature of Dike-Induced Earthquakes and Caldera Collapse Mechanisms, *Journal of Geophysical Research: Solid Earth*, 124(8), p8331-8357, doi: 10.1029/2018JB016010, (GEF Loans 980, 1022)
2. Boyce, A., Bastow, I.D., Golos, E.M., Rondenay, S., Burdick, S. and Van der Hilst, R.D., **2019**, Variable modification of continental lithosphere during the Proterozoic Grenville orogeny: Evidence from teleseismic P-wave tomography, *Earth and Planetary Science Letters*, 525, p115763, doi: 10.1016/j.epsl.2019.115763, (GEF Loans 817, 900)
3. Chambers, E.L., Harmon, N., Keir, D. and Rychert, C.A., **2019**, Using Ambient Noise to Image the Northern East African Rift, *Geochemistry, Geophysics, Geosystems*, 20(4), p2091-2109, doi: 10.1029/2018GC008129, (GEF Loan 981)
4. Corbeau, J., Gonzalez, O., Clouard, V., Rolandone, F., Leroy, S., Keir, D., Stuart, G., Momplaisir, R., Boisson, D. and Prépetit, C., **2019**, Is the local seismicity in western Hispaniola (Haiti) capable of imaging northern Caribbean subduction?, *Geosphere*, 15(6), p1738-1750, doi: 10.1130/GES02083.1, (GEF Loan 987)
5. Cunliffe, A.M., Tanski, G., Radosavljevic, B., Palmer, W.F., Sachs, T., Lantuit, H., Kerby, J.T. and Myers-Smith, I.H., **2019**, Rapid retreat of permafrost coastline observed with aerial drone photogrammetry, *The Cryosphere Discussions*, p1-27, doi: 10.5194/tc-2018-234, (GEF Loans 1063, 1069)
6. Cunliffe, A.M., Tanski, G., Radosavljevic, B., Palmer, W.F., Sachs, T., Lantuit, H., Kerby, J.T. and Myers-Smith, I.H., **2019**, Rapid retreat of permafrost coastline observed with aerial drone photogrammetry, *The Cryosphere*, 13(5), p1513-1528, doi: 10.5194/tc-13-1513-2019, (GEF Loans 1063, 1069)
7. Donaldson, C., Winder, T., Caudron, C. and White, R.S., **2019**, Crustal seismic velocity responds to a magmatic intrusion and seasonal loading in Iceland's Northern Volcanic Zone, *Science Advances*, 5(11), eaax6642, doi: 10.1126/sciadv.aax6642, (GEF Loans 968, 1022)
8. Gastineau, R., Conway, S.J., Johnsson, A., Eichel, J., Mangold, N., Grindrod, P.M. and Izquierdo, T., **2019**, Small-scale lobate hillslope features on Mars: A comparative 3D morphological study with terrestrial solifluction lobes and zebra stripe lobes, *Icarus*, p113606, doi: 10.1016/j.icarus.2019.113606, (GEF Loan 1030)
9. Greenfield, T., Keir, D., Kendall, J. and Ayele, A., **2019**, Seismicity of the Bora – Tullu-Moye volcanic field, 2016-2017, *Geochemistry, Geophysics, Geosystems*, doi: 10.1029/2018GC007648, (GEF Loan 1037)
10. Greenfield, T., Keir, D., Kendall, J. and Ayele, A., **2019**, Low-frequency earthquakes beneath Tullu Moye volcano, Ethiopia, reveal fluid pulses from shallow magma chamber, *Earth and Planetary Science Letters*, 526, p115782, doi: 10.1016/j.epsl.2019.115782, (GEF Loan 1037)
11. Hammond, J.O.S., England, R., Rawlinson, N., Curtis, A., Sigloch, K., Harmon, N. and Baptie, B., **2019**, The future of passive seismic acquisition, *Astronomy & Geophysics*, 60(2), p2.37-2.42, doi: 10.1093/astrogeo/atz102, (GEF Loan )
12. Hart, J.K., Martinez, K., Basford, P.J., Clayton, A.I., Bragg, G.M., Ward, T. and Young, D.S., **2019**, Surface melt-driven seasonal behaviour (englacial and subglacial) from a soft-bedded temperate glacier recorded by in situ wireless probes, *Earth Surface Processes and Landforms*, doi: 10.1002/esp.4611, (GEF Loans 935, 961, 983)
13. Hart, J.K., Martinez, K., Basford, P.J., Clayton, A.I., Robson, B.A. and Young, D.S., **2019**, Surface melt driven summer diurnal and winter multi-day stick-slip motion and till sedimentology, *Nature Communications*, 10(1), doi: 10.1038/s41467-019-09547-6, (GEF Loans 935, 961, 983)
14. Hudson, T.S., Smith, J., Brisbourne, A.M. and White, R.S., **2019**, Automated detection of basal icequakes and discrimination from surface crevassing, *Annals of Glaciology*, 60(79), p167-181, doi: 10.1017/aog.2019.18, (GEF Loan 1022)
15. Illsley-Kemp, F., Bull, J.M., Keir, D., Gerya, T.V., Pagli, C., Gernon, T., Ayele, A., Goitom, B., Hammond, J. and Kendall, J.M., **2019**, Initiation of a Proto-Transform Fault Prior to Seafloor Spreading, *Geochemistry, Geophysics, Geosystems*, doi: 10.1029/2018GC007947, (GEF Loans 913, 956)
16. Jackson, D.W., Costas, S., Gonzalez-Villanueva, R. and Cooper, A., **2019**, A global 'greening' of coastal dunes: An integrated consequence of climate change?, *Global and Planetary Change*, 182, p103026, doi: 10.1016/j.gloplacha.2019.103026, (GEF Loan 1082)

17. Karplus, M.S., Klemperer, S.L., Zhao, W., Kind, R., Wu, Z., Mechie, J., Shi, D., Brown, L.D., Chen, C., Su, H., Xue, G., Sandvol, E., Ni, J., Tilmann, F.J. and Chen, Y.J., **2019**, Receiver-function imaging of the lithosphere at the Kunlun-Qaidam boundary, Northeast Tibet, *Tectonophysics*, 759, p30-43, doi: 10.1016/j.tecto.2019.03.015, (GEF Loan 769)
18. Kulesa, B., Booth, A.D., O'Leary, M., McGrath, D., King, E.C., Luckman, A.J., Holland, P.R., Jansen, D., Bevan, S.L., Thompson, S.S. and Hubbard, B., **2019**, Seawater softening of suture zones inhibits fracture propagation in Antarctic ice shelves, *Nature Communications*, 10(1), doi: 10.1038/s41467-019-13539-x, (GEF Loan 863)
19. Lavayssière, A., Drooff, C., Ebinger, C., Gallacher, R., Illsley-Kemp, F., Oliva, S.J. and Keir, D., **2019**, Depth Extent and Kinematics of Faulting in the Southern Tanganyika Rift, Africa, *Tectonics*, 38(3), p842-862, doi: 10.1029/2018TC005379, (GEF Loan 981)
20. Lavayssière, A., Greenfield, T., Keir, D., Ayele, A. and Kendall, J., **2019**, Local seismicity near the actively deforming Corbetti volcano in the Main Ethiopian Rift, *Journal of Volcanology and Geothermal Research*, 381, p227-237, doi: 10.1016/j.jvolgeores.2019.06.008, (GEF Loan 1037)
21. Martins, J.E., Ruigrok, E., Draganov, D., Hooper, A., Hanssen, R.F., White, R.S. and Soosalu, H., **2019**, Imaging Torfajokull's Magmatic Plumbing System With Seismic Interferometry and Phase Velocity Surface Wave Tomography, *Journal of Geophysical Research: Solid Earth*, 124(3), p2920-2940, doi: 10.1029/2018JB016002, (GEF Loans 980, 1071)
22. Matchette-Downes, H., van der Hilst, R.D., Gilligan, A. and Priestley, K., **2019**, Seismological constraints on the density, thickness and temperature of the lithospheric mantle in southwestern Tibet, *Earth and Planetary Science Letters*, 524, p115719, doi: 10.1016/j.epsl.2019.115719, (GEF Loan 1046)
23. Murray, J.B., **2019**, The cryptic summit graben of Mt. Etna volcano, *Journal of Volcanology and Geothermal Research*, 387, p106657, doi: 10.1016/j.jvolgeores.2019.07.024, (GEF Loans 727, 776, 799, 825, 869)
24. Myers-Smith, I.H., Grabowski, M.M., Thomas, H.J.D., Angers-Blondin, S., Daskalova, G.N., Bjorkman, A.D., Cunliffe, A.M., Assmann, J.J., Boyle, J.S., McLeod, E., McLeod, S., Joe, R., Lennie, P., Arey, D., Gordon, R.R. and Eckert, C.D., **2019**, Eighteen years of ecological monitoring reveals multiple lines of evidence for tundra vegetation change, *Ecological Monographs*, 89(2), e01351, doi: 10.1002/ecm.1351, (GEF Loans 1063, 1064)
25. O'Donnell, J., Stuart, G., Brisbourne, A., Selway, K., Yang, Y., Nield, G., Whitehouse, P., Nyblade, A., Wiens, D., Aster, R., Anandakrishnan, S., Huerta, A., Wilson, T. and Winberry, J., **2019**, The uppermost mantle seismic velocity structure of West Antarctica from Rayleigh wave tomography: Insights into tectonic structure and geothermal heat flow, *Earth and Planetary Science Letters*, 522, p219-233, doi: 10.1016/j.epsl.2019.06.024, (GEF Loan 1002)
26. O'Donnell, J.P., Brisbourne, A.M., Stuart, G.W., Dunham, C.K., Yang, Y., Nield, G.A., Whitehouse, P.L., Nyblade, A.A., Wiens, D.A., Anandakrishnan, S., Aster, R.C., Huerta, A.D., Lloyd, A.J., Wilson, T. and Winberry, J.P., **2019**, Mapping Crustal Shear Wave Velocity Structure and Radial Anisotropy Beneath West Antarctica Using Seismic Ambient Noise, *Geochemistry, Geophysics, Geosystems*, 20(11), p5014-5037, doi: 10.1029/2019GC008459, (GEF Loan 1002)
27. Ogden, C.S., Bastow, I.D., Gilligan, A. and Rondenay, S., **2019**, A reappraisal of the H-k stacking technique: implications for global crustal structure, *Geophysical Journal International*, 219(3), p1491-1513, doi: 10.1093/gji/ggz364, (GEF Loans 817, 900)
28. Pagli, C., Yun, S., Ebinger, C., Keir, D. and Wang, H., **2019**, Strike-slip tectonics during rift linkage, *Geology*, 47(1), p31-34, doi: 10.1130/G45345.1, (GEF Loan 885)
29. Peirce, C., Reveley, G., Robinson, A.H., Funnell, M.J., Searle, R.C., Simão, N.M., MacLeod, C.J. and Reston, T.J., **2019**, Constraints on crustal structure of adjacent OCCs and segment boundaries at 13° N on the Mid-Atlantic Ridge, *Geophysical Journal International*, doi: 10.1093/gji/ggz074, (GEF Loan )
30. Peirce, C., Robinson, A.H., Campbell, A.M., Funnell, M.J., Grevemeyer, I., Hayman, N.W., Van Avendonk, H.J.A. and Castiello, G., **2019**, Seismic investigation of an active ocean-continent transform margin: the interaction between the Swan Islands Fault Zone and the ultraslow-spreading Mid-Cayman Spreading Centre, *Geophysical Journal International*, doi: 10.1093/gji/ggz283, (GEF Loan )
31. Pilia, S., Rawlinson, N., Gilligan, A. and Tongkul, F., **2019**, Deciphering the Fate of Plunging Tectonic Plates in Borneo, *Eos*, 100, doi: 10.1029/2019EO123475, (GEF Loan 1038)
32. Possee, D., Keir, D., Harmon, N., Rychert, C., Rolandone, F., Leroy, S., Corbeau, J., Stuart, G., Calais, E., Illsley-Kemp, F., Boisson, D., Momplaisir, R. and Prépetit, C., **2019**, The Tectonics and Active Faulting of Haiti from Seismicity and Tomography, *Tectonics*, 38(3), p1138-1155, doi: 10.1029/2018TC005364, (GEF Loan 987)
33. Priestley, K., Ho, T. and Mitra, S., **2019**, The crustal structure of the Himalaya: A synthesis, *Geological Society, London, Special Publications*, 483(1), p483-516, doi: 10.1144/SP483-2018-127, (GEF Loans 774, 1046)

34. SoltaniMoghadam, S., Tatar, M. and Komeazi, A., **2019**, An improved 1-D crustal velocity model for the Central Alborz (Iran) using Particle Swarm Optimization algorithm, *Physics of the Earth and Planetary Interiors*, 292, p87-99, doi: 10.1016/j.pepi.2019.05.009, (GEF Loan 746)
35. White, R.S., Edmonds, M., Maclennan, J., Greenfield, T. and Agustsdottir, T., **2019**, Melt movement through the Icelandic crust, *Philosophical Transactions of the Royal Society A: Mathematical, Physical and Engineering Sciences*, 377(2139), p20180010, doi: 10.1098/rsta.2018.0010, (GEF Loans 842, 857, 914, 968, 980, 1022)
36. Williams, R.D., Lamy, M., Maniatis, G. and Stott, E., **2019**, Three-dimensional reconstruction of fluvial surface sedimentology and topography using personal mobile laser scanning, *Earth Surface Processes and Landforms*, 45(1), p251-261, doi: 10.1002/esp.4747, (GEF Loan 1084)
37. Wilson, D.J., Robinson, A.H., Hobbs, R.W., Peirce, C. and Funnell, M.J., **2019**, Does intermediate spreading-rate oceanic crust result from episodic transition between magmatic and magma-dominated, faulting-enhanced spreading? – the Costa Rica Rift example, *Geophysical Journal International*, doi: 10.1093/gji/ggz184, (GEF Loan )
38. Woods, J., Winder, T., White, R.S. and Brandsdottir, B., **2019**, Evolution of a lateral dike intrusion revealed by relatively-relocated dike-induced earthquakes: The 2014–15 Bardarbunga–Holuhraun rifting event, Iceland, *Earth and Planetary Science Letters*, 506, p53-63, doi: 10.1016/j.epsl.2018.10.032, (GEF Loans 968, 1022)

### Conference Papers / Proceedings

1. Agustsdottir, T., Winder, T., Woods, J., White, R.S., Greenfield, T. and Brandsdottir, B., **2019**, Intense Seismicity During the 2014–2015 Bárðarbunga–Holuhraun Rifting Event, Iceland, Reveals the Nature of Dike-Induced Earthquakes and Caldera Collapse Mechanisms, *American Geophysical Union, Fall Meeting 2019, San Francisco*, V51A-01, (GEF Loans 980, 1022)
2. Agustsdottir, T., Woods, J., Winder, T., White, R.S., Greenfield, T. and Brandsdóttir, B., **2019**, The 2014–2015 Bárðarbunga–Holuhraun magmatic rifting event: A seismic study , *EGU, Vienna, EOS, Transactions, AGU*, EGU2019-13764, (GEF Loan 1071)
3. Alemayehu, S., Karim, A., Ayele, A., Keranen, K., Pachhai, S., Kherchouche, R., Guidarelli, M. and Kim, S., **2019**, Shear-wave velocity structure of the crust and uppermost mantle beneath the Western Ethiopian Plateau and adjacent rift , *EGU, Vienna, EGU General Assembly*, 17950, (GEF Loan 841)
4. Bacon, C., Smith, J.D., Winder, T., Hudson, T., Greenfield, T. and White, R.S., **2019**, QuakeMigrate: a Modular, Open-Source Python Package for Earthquake Detection and Location, *American Geophysical Union, Fall Meeting 2019, San Francisco*, S53B-05, (GEF Loans 980, 1022)
5. Bacon, C.A., White, R.S. and Rawlinson, N., **2019**, Depth Constraints on Seismic Anisotropy in Iceland from Shear Wave Splitting Measurements, *American Geophysical Union, Fall Meeting 2019, San Francisco*, S41D-0559, (GEF Loans 968, 980, 1022)
6. Brandsdottir, B., White, R.S., Agustsdottir, T., Winder, T., Smith, J.D. and Bacon, C., **2019**, Caldera Seismicity Associated with the 1998 Inflation of the Shallow Crustal Magma Chamber beneath the Grímsvötn Hotspot Volcano, Iceland, *American Geophysical Union, Fall Meeting 2019, San Francisco*, V43C-0199, (GEF Loans 980, 1022)
7. Donaldson, C., Winder, T., Caudron, C. and White, R.S., **2019**, Crustal Seismic Velocity Responds to a Magmatic Intrusion and Seasonal Loading in Iceland's Northern Volcanic Zone, *American Geophysical Union, Fall Meeting 2019, San Francisco*, S11C-0345, (GEF Loans 968, 1022)
8. Keir, D., Lavayssuere, A., Greenfield, T., Ayele, A. and Kendall, J.-M., **2019**, Local seismicity near the actively deforming Corbetti volcano in the Main Ethiopian Rift, *American Geophysical Union, Fall Meeting 2019, San Francisco, EOS, Transactions, AGU*, V11B-06, (GEF Loan 1037)
9. Volk, O., White, R.S., Pilia, S., Green, R.G., Maclennan, J. and Rawlinson, N., **2019**, Crustal Flow and Formation in Iceland from Radial Anisotropy, *American Geophysical Union, Fall Meeting 2019, San Francisco*, S41D-0545, (GEF Loans 980, 1022)
10. White, R.S., **2019**, North Atlantic volcanic rifts: from continental breakup to seafloor spreading, The 2014–2015 Bárðarbunga–Holuhraun magmatic rifting event: A seismic study, *Geophysical Research Abstracts, EGU General Assembly*, 21, EGU2019-9461, (GEF Loans 980, 1022)
11. White, R.S., Woods, J., Winder, T., Brandsdottir, B., Agustsdottir, T. and Hudson, T., **2019**, Tracking Subsurface Melt Movement through the Crust in Iceland using Seismology, *American Geophysical Union, Fall Meeting 2019, San Francisco*, V43B-01, (GEF Loans 980, 1022)

12. Winder, T., Donaldson, C. and White, R.S., **2019**, Seasonal Seismicity and Seismic Velocity Variations across the Northern Volcanic Zone, Iceland, are Controlled by Pore-Pressure Variations and Elastic Loading, *American Geophysical Union, Fall Meeting 2019, San Francisco, S23D-0676*, (GEF Loans 968, 980, 1022)
13. Winder, T., Woods, J., White, R.S. and Brandsdottir, B., **2019**, Evolution of a lateral dike intrusion revealed by relatively-relocated dike-induced earthquakes: The 2014–15 Bárðarbunga–Holuhraun rifting event, Iceland, *Geophysical Research Abstracts, EGU General Assembly, 21, EGU2019-17060*, (GEF Loans 980, 1022)
14. Woods, J., Winder, T., White, R.S. and Brandsdottir, B., **2019**, Evolution of a lateral dike intrusion revealed by relatively-relocated dike-induced earthquakes: The 2014–15 Bárðarbunga–Holuhraun rifting event, Iceland, *Geophysical Research Abstracts, EGU General Assembly, 21, EGU2019-44*, (GEF Loans 980, 1022)

### PhD Theses

1. Assmann, J.J., **2019**, Arctic tundra plant phenology and greenness across space and time, *University of Edinburgh*, (GEF Loan 1069)
2. Gibson-Poole, S.J., **2019**, Filling the sensor gap: applying UAS technology to land-use research, *University of Edinburgh*, (GEF Loan )
3. Gilles, C., **2019**, Developing an integrated geoscientific landslide hazard assessment system to improve understanding of slope stability, *University of Glasgow*, (GEF Loan 1062)
4. Hawker, L., **2019**, Regional Flood Models and Digital Elevation Model (DEM) Uncertainty, *University of Bristol*, (GEF Loan 1089)
5. Hudson, T.S., **2019**, Investigating volcanic and glacial processes using microseismicity , *University of Cambridge*, doi: 10.17863/CAM.45965, (GEF Loan 1022)
6. McCarthy, M.J., **2019**, Quantifying supraglacial debris thickness at local to regional scales, *University of Cambridge*, (GEF Loan 1014)
7. Smith, J., **2019**, Seismicity and deformation of Groningen gas reservoir, *University of Cambridge*, (GEF Loan 1022)
8. Taylor, B.W., **2019**, Saltmarsh restoration and blue carbon dynamics in a Scottish estuary, *University of St Andrews*, (GEF Loan 1044)
9. Woods, J., **2019**, Dyke-induced earthquakes during the 2014-15 Bárðarbunga-Holuhraun rifting event, Iceland , *University of Cambridge*, doi: 10.17863/CAM.36697, (GEF Loan 1071)