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2017

Enderlin, E. M., Hamilton, G. S., O'Neel, S., Bartholomaeus, T. C., Morlighem, M., & Holt, J. W. (2016). An Empirical Approach for Estimating Stress-Coupling Lengths for Marine-Terminating Glaciers. *Frontiers in Earth Science*, 4, 104. doi:10.3389/feart.2016.00104

Heindel, R. C., Spickard, A. M., & Virginia, R. A. (2017). Landscape-scale soil phosphorus variability in the McMurdo Dry Valleys. *Antarctic Science*. doi:10.1017/S0954102016000742

Roback, K., Clark, M. K., West, A. J., Zekkos, D., Li, G., Gallen, S. F., Chamlagain, D., & Godt, J. W. (2017). The size, distribution, and mobility of landslides caused by the 2015 Mw7.8 Gorkha earthquake, Nepal. *Geomorphology*. doi:10.1016/j.geomorph.2017.01.030

Tewksbury, B. J., Tarabees, E. A., & Mehrtens, C. J. (2017). Origin of an extensive network of non-tectonic synclines in Eocene limestones of the Western Desert, Egypt. *Journal of African Earth Sciences*. doi:10.1016/j.jafrearsci.2017.02.017

2016

Alley, K. E., Scambos, T. A., Siegfried, M. R., & Fricker, H. A. (2016). Impacts of warm water on Antarctic ice shelf stability through basal channel formation. *Nature Geoscience*, 9(4), 290–293. doi:10.1038/ngeo2675

Bartholomaeus, T. C., Stearns, L. A., Sutherland, D. A., Shroyer, E. L., Nash, J. D., Walker, R. T., Catania, G., Felikson, D., Carroll, D., Fried, M. J., Noël, B. P. Y., Van, M. R., & Broeke, D. (2016). Contrasts in the response of adjacent fjords and glaciers to ice-sheet surface melt in West Greenland. *Annals of Glaciology*, 57(73), 25–38. doi:10.1017/aog.2016.19

- Bibby, T., Putkonen, J., Morgan, D., Balco, G., & Shuster, D. L. (2016). Million year old ice found under meter thick debris layer in Antarctica. *Geophysical Research Letters*, 43(13), 6995–7001. doi:10.1002/2016GL069889
- Brunt, K. M., Neumann, T. A., Amundson, J. M., Kavanaugh, J. L., Moussavi, M. S., Walsh, K. M., Cook, W. B., & Markus, T. (2016). MABEL photon-counting laser altimetry data in Alaska for ICESat-2 simulations and development. *The Cryosphere*, 10(4), 1707–1719. doi:10.5194/tc-10-1707-2016
- Burkett, C. A., Bemis, S. P., & Benowitz, J. A. (2016). Along-fault migration of the Mount McKinley restraining bend of the Denali fault defined by late Quaternary fault patterns and seismicity, Denali National Park & Preserve, Alaska. *Tectonophysics*. doi:10.1016/j.tecto.2016.05.009
- Castendyk, D. N., Obryk, M. K., Leidman, S. Z., Gooseff, M., & Hawes, I. (2016). Lake Vanda: A sentinel for climate change in the McMurdo Sound Region of Antarctica. *Global and Planetary Change*, 144, 213–227. doi:10.1016/j.gloplacha.2016.06.007
- Curasi, S. R., Loranty, M. M., & Natali, S. M. (2016). Water track distribution and effects on carbon dioxide flux in an eastern Siberian upland tundra landscape. *Environmental Research Letters*, 11(4). doi:10.1088/1748-9326/11/4/045002
- Davidson, S. J., Sloan, V. L., Phoenix, G. K., Wagner, R., Fisher, J. P., Oechel, W. C., & Zona, D. (2016). Vegetation Type Dominates the Spatial Variability in CH₄ Emissions Across Multiple Arctic Tundra Landscapes. *Ecosystems*, 19(6), 1–17. doi:10.1007/s10021-016-9991-0
- Davidson, S., Santos, M., Sloan, V., Watts, J., Phoenix, G., Oechel, W., & Zona, D. (2016). Mapping Arctic Tundra Vegetation Communities Using Field Spectroscopy and Multispectral Satellite Data in North Alaska, USA. *Remote Sensing*, 8(12), 978. doi:10.3390/rs8120978
- Fountain, A. G., Basagic, H. J., & Niebuhr, S. (2016). Glaciers in equilibrium, McMurdo Dry Valleys, Antarctica. *Journal of Glaciology*, 62(235), 976–989. doi:10.1017/jog.2016.86
- Goetz, K. T., Burns, J. M., Hücksttdt, L. A., Shero, M. R., & Costa, D. P. (2016). Temporal variation in isotopic composition and diet of Weddell seals in the western Ross Sea. *Deep Sea Research Part II: Topical Studies in Oceanography*. doi:10.1016/j.dsr2.2016.05.017
- Gooseff, M. N., Van Horn, D., Sudman, Z., McKnight, D. M., Welch, K. A., & Lyons, W. B. (2016). Stream biogeochemical and suspended sediment responses to permafrost degradation in stream banks in Taylor Valley, Antarctica. *Biogeosciences*, 13(6), 1723–1732. doi:10.5194/bg-13-1723-2016
- Jackson, A. M., Hasiotis, S. T., & Flaig, P. P. (2016). Ichnology of a Paleopolar, River-Dominated, Shallow Marine Deltaic Succession in the Mackellar Sea: The Mackellar Formation (Lower Permian), Central Transantarctic Mountains, Antarctica. *Palaeogeography, Palaeoclimatology, Palaeoecology*, 441, 266–291. doi:10.1016/j.palaeo.2015.07.010
- Joughin, I., Shean, D. E., Smith, B. E., & Dutrieux, P. (2016). Grounding line variability and subglacial lake drainage on Pine Island Glacier, Antarctica. *Geophysical Research Letters*, 43(17), 9093–9102. doi:10.1002/2016GL070259

- Karlstrom, L., & Yang, K. (2016). Fluvial supraglacial landscape evolution on the Greenland Ice Sheet. *Geophysical Research Letters*, 43(6), 2683–2692. doi:10.1002/2016GL067697
- Khan, A. L., Jaffé, R., Ding, Y., & McKnight, D. M. (2016). Dissolved black carbon in Antarctic lakes: Chemical signatures of past and present sources. *Geophysical Research Letters*, 43(11), 5750–5757. doi:10.1002/2016GL068609
- Kienholz, C., Hock, R., Truffer, M., Arendt, A. A., & Arko, S. (2016). Geodetic mass balance of surge-type Black Rapids Glacier, Alaska, 1980–2001–2010, including role of rockslide deposition and earthquake displacement. *Journal of Geophysical Research: Earth Surface*, 121. doi:10.1002/2016JF003883
- King, L., Hassan, M., Yang, K., & Flowers, G. (2016). Flow Routing for Delineating Supraglacial Meltwater Channel Networks. *Remote Sensing*, 8(12), 988. doi:10.3390/rs8120988
- Larsen, S. H., Khan, S. A., Ahlstrøm, A. P., Hvidberg, C. S., Willis, M. J., & Andersen, S. B. (2016). Increased mass loss and asynchronous behavior of marine-terminating outlet glaciers at Upernavik Isstrøm, NW Greenland. *Journal of Geophysical Research F: Earth Surface*, 121(2), 241–256. doi:10.1002/2015JF003507
- Li, G., West, A. J., Densmore, A. L., Hammond, D. E., Jin, Z., Zhang, F., Wang, J., & Hilton, R. G. (2016). Connectivity of earthquake-triggered landslides with the fluvial network: Implications for landslide sediment transport after the 2008 Wenchuan earthquake. *Journal of Geophysical Research: Earth Surface*, 121(4), 703–724. doi:10.1002/2015JF003718
- Liljedahl, A. K., Boike, J., Daanen, R. P., Fedorov, A. N., Frost, G. V., Grosse, G., ... Zona, D. (2016). Pan-Arctic ice-wedge degradation in warming permafrost and influence on tundra hydrology. *Nature Geoscience*, 9(April), 312–318. doi:10.1038/ngeo2674
- Lyons, W. B., Deuerling, K., Welch, K. A., Welch, S. A., Michalski, G., Walters, W. W., Nielsen, U., Wall, D. H., Hogg, I., & Adams, B. J. (2016). The Soil Geochemistry in the Beardmore Glacier Region, Antarctica: Implications for Terrestrial Ecosystem History. *Scientific Reports*, 6. doi:10.1038/srep26189
- Meijers, M. J. M., Strauss, B. E., Özkaptan, M., Feinberg, J. M., Mulch, A., Whitney, D. L., & Kaymakçi, N. (2016). Age and paleoenvironmental reconstruction of partially remagnetized lacustrine sedimentary rocks (Oligocene Aktoprak basin, central Anatolia, Turkey). *Geochemistry, Geophysics, Geosystems*, 17, 914–939. doi:10.1002/2015GC006209
- Melkonian, A. K., Willis, M. J., Pritchard, M. E., & Stewart, A. J. (2016). Recent changes in glacier velocities and thinning at Novaya Zemlya. *Remote Sensing of Environment*, 174, 244–257. doi:10.1016/j.rse.2015.11.001
- Miège, C., Forster, R. R., Brucker, L., Koenig, L. S., Solomon, D. K., Paden, J. D., Box, J. E., Burgess, E. W., Miller, J. Z., McNerney, L., Brautigam, N., Fausto, R. S., & Gogineni, S. (2016). Spatial extent and temporal variability of Greenland firn aquifers detected by ground and airborne radars. *Journal of Geophysical Research: Earth Surface*, 121. doi:10.1002/2016JF003869

- Moussavi, M. S., Abdalati, W., Pope, A., Scambos, T., Tedesco, M., MacFerrin, M., & Grigsby, S. (2016). Derivation and validation of supraglacial lake volumes on the Greenland Ice Sheet from high-resolution satellite imagery. *Remote Sensing of Environment*, 183, 294–303. doi:10.1016/j.rse.2016.05.024
- Pope, A., Scambos, T. A., Moussavi, M., Tedesco, M., Willis, M., Shean, D., & Grigsby, S. (2016). Estimating supraglacial lake depth in West Greenland using Landsat 8 and comparison with other multispectral methods. *The Cryosphere*, 10(1), 15–27. doi:10.5194/tc-10-15-2016
- Vick-Majors, T. J., Achberger, A., Santibáñez, P., Dore, J. E., Hodson, T., Michaud, A. B., Christner, B. C., Mikucki, J., Skidmore, M. L., Powell, R., Adkins, W. P., Barbante, C., Mitchell, A., Scherer, R., & Priscu, J. C. (2016). Biogeochemistry and microbial diversity in the marine cavity beneath the McMurdo Ice Shelf, Antarctica. *Limnology and Oceanography*, 61(2), 572–586. doi:10.1002/lno.10234
- Wang, S., Liu, H., Yu, B., Zhou, G., & Cheng, X. (2016). Revealing the early ice flow patterns with historical Declassified Intelligence Satellite Photographs back to 1960s. *Geophysical Research Letters*, 43(11), 5758–5767. doi:10.1002/2016GL068990
- Witharana, C., & Lynch, H. J. (2016). An object-based image analysis approach for detecting penguin guano in very high spatial resolution satellite images. *Remote Sensing*, 8(5). doi:10.3390/rs8050375
- Wlostowski, A. N., Gooseff, M. N., Bowden, W. B., & Wollheim, W. M. (2016). Stream tracer breakthrough curve decomposition into mass fractions: A simple framework to analyze and compare conservative solute transport processes. *Limnology and Oceanography: Methods*. doi:10.1002/lom3.10148
- Yang, K., Karlstrom, L., Smith, L. C., & Li, M. (2016). Automated High-Resolution Satellite Image Registration Using Supraglacial Rivers on the Greenland Ice Sheet. *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing*. doi:10.1109/JSTARS.2016.2617822
- Yang, K., & Smith, L. C. (2016). Internally drained catchments dominate supraglacial hydrology of the southwest Greenland Ice Sheet. *Journal of Geophysical Research: Earth Surface*. doi:10.1002/2016JF003927
- Yang, K., Smith, L. C., Chu, V. W., Pitcher, L. H., Gleason, C. J., Rennermalm, A. K., & Li, M. (2016). Fluvial morphometry of supraglacial river networks on the southwest Greenland Ice Sheet. *GIScience & Remote Sensing*, 53(4), 459–482. doi:10.1080/15481603.2016.1162345
- Yu, Z., Beilman, D. W., & Loisel, J. (2016). Transformations of landscape and peat-forming ecosystems in response to late Holocene climate change in the western Antarctic Peninsula. *Geophysical Research Letters*, 43(13), 7186–7195. doi:10.1002/2016GL069380

2015

- Ainley, D. G., Larue, M. A., Stirling, I., Stammerjohn, S., & Siniff, D. B. (2015). An apparent population decrease, or change in distribution, of Weddell seals along the Victoria Land coast. *Marine Mammal Science*, 31(4), 1338–1361. doi:10.1111/mms.12220

- Andersen, D. T., McKay, C. P., & Lagun, V. (2015). Climate conditions at perennially ice-covered lake Untersee, East Antarctica. *Journal of Applied Meteorology and Climatology*, 54(7), 1393–1412. doi:10.1175/JAMC-D-14-0251.1
- Broderick, D. E., Frey, K. E., Rogan, J., Alexander, H. D., & Zimov, N. S. (2015). Estimating upper soil horizon carbon stocks in a permafrost watershed of Northeast Siberia by integrating field measurements with Landsat-5 TM and WorldView-2 satellite data. *GIScience & Remote Sensing*, 52(2), 131–157. doi:10.1080/15481603.2015.1010434
- Das, I., Scambos, T. A., Koenig, L. S., Van Den Broeke, M. R., & Lenaerts, J. T. M. (2015). Extreme wind-ice interaction over Recovery Ice Stream, East Antarctica. *Geophysical Research Letters*, 42(19), 8064–8071. doi:10.1002/2015GL065544
- Del Carlo, P., Di Roberto, A., Di Vincenzo, G., Bertagnini, A., Landi, P., Pompilio, M., Colizza, E., & Giordano, G. (2015). Late Pleistocene-Holocene volcanic activity in northern Victoria Land recorded in Ross Sea (Antarctica) marine sediments. *Bulletin of Volcanology*, 77(5), 36. doi:10.1007/s00445-015-0924-0
- Freire, F., Gyllencreutz, R., Greenwood, S. L., Mayer, L., Egilsson, A., Thorsteinsson, T., & Jakobsson, M. (2015). High resolution mapping of offshore and onshore glaciogenic features in metamorphic bedrock terrain, Melville Bay, northwestern Greenland. *Geomorphology*, 250, 29–40. doi:10.1016/j.geomorph.2015.08.011
- Hall, D. K., Nghiem, S. V., Rigor, I. G., & Miller, J. A. (2015). Uncertainties of temperature measurements on snow-covered land and sea ice from in situ and MODIS data during BROMEX. *Journal of Applied Meteorology and Climatology*, 54(5), 966–978. doi:10.1175/JAMC-D-14-0175.1
- Hardy, J. P. (2015). Indicators of Physical and Biological Trends around the McMurdo Station, Antarctica: A Literature Review. Retrieved from <http://acwc.sdp.sirsi.net/client/search/asset/1043447>
- Holland, P. R., Brisbourne, A., Corr, H. F. J., McGrath, D., Purdon, K., Paden, J., Fricker, H. A., Paolo, F. S., & Fleming, A. H. (2015). Oceanic and atmospheric forcing of Larsen C Ice-Shelf thinning. *The Cryosphere*, 9(3), 1005–1024. doi:10.5194/tc-9-1005-2015
- Ikawa, H., Nakai, T., Busey, R. C., Kim, Y., Kobayashi, H., Nagai, S., Ueyama, M., Saito, K., Nagano, H., Suzuki, R., & Hinzman, L. (2015). Understory CO₂, sensible heat, and latent heat fluxes in a black spruce forest in interior Alaska. *Agricultural and Forest Meteorology*, 214–215, 80–90. doi:10.1016/j.agrformet.2015.08.247
- Langford, Z. L., Gooseff, M. N., & Lampkin, D. J. (2015). Spatiotemporal dynamics of wetted soils across a polar desert landscape. *Antarctic Science*, 27(2), 197–209. doi:10.1017/S0954102014000601
- Larue, M. A., Stapleton, S., Porter, C., Atkinson, S., Atwood, T., Dyck, M., & Lecomte, N. (2015). Testing methods for using high-resolution satellite imagery to monitor polar bear abundance and distribution. *Wildlife Society Bulletin*, 39(4), 772–779. doi:10.1002/wsb.596

- Lavoie, C., Domack, E. W., Pettit, E. C., Scambos, T. A., Larter, R. D., Schenke, H.-W. W., Yoo, K. C., Gutt, J., Wellner, J., Canals, M., Anderson, J. B., & Amblas, D. (2015). Configuration of the Northern Antarctic Peninsula Ice Sheet at LGM based on a new synthesis of seabed imagery. *The Cryosphere*, 9(2), 613–629. doi:10.5194/tc-9-613-2015
- Li, W., Bhatia, V., & Cao, K. (2015). Intelligent polar cyberinfrastructure: enabling semantic search in geospatial metadata catalogue to support polar data discovery. *Earth Science Informatics*, 8(1), 111–123. doi:10.1007/s12145-014-0185-z
- McCarthy, M. J., Merton, E. J., & Muller-Karger, F. E. (2015). Improved coastal wetland mapping using very-high 2-meter spatial resolution imagery. *International Journal of Applied Earth Observation and Geoinformation*, 40, 11–18. doi:10.1016/j.jag.2015.03.011
- Miller, M. F., Fan, Z., & Bowser, S. S. (2015). Sediments beneath multi-year sea ice: Delivery by deltaic and eolian processes. *Journal of Sedimentary Research*, 85(3), 301–314. doi:10.2110/jsr.2015.20
- Muirhead, J. D., Kattenhorn, S. A., & Le Corvec, N. (2015). Varying styles of magmatic strain accommodation across the East African Rift. *Geochemistry, Geophysics, Geosystems*, 16(8), 2775–2795. doi:10.1002/2015GC005918
- Noh, M.-J. J., & Howat, I. M. (2015). Automated stereo-photogrammetric DEM generation at high latitudes: Surface Extraction with TIN-based Search-space Minimization (SETSM) validation and demonstration over glaciated regions. *GIScience & Remote Sensing*, 52(2), 198–217. doi:10.1080/15481603.2015.1008621
- Salvatore, M. R. (2015). High-resolution compositional remote sensing of the Transantarctic Mountains: application to the WorldView-2 dataset. *Antarctic Science*, 27(5), 473–491. doi:10.1017/S095410201500019X
- Smith, L. C., Chu, V. W., Yang, K., Gleason, C. J., Pitcher, L. H., Rennermalm, A. K., Legleiter, C. J., Behar, A. E., Overstreet, B. T., Moustafa, S. E., Tedesco, M., Forster, R. R., LeWinter, A. L., Finnegan, D. C., Sheng, Y., & Balog, J. (2015). Efficient meltwater drainage through supraglacial streams and rivers on the southwest Greenland ice sheet. *Proceedings of the National Academy of Sciences*, 112(4), 1001–1006. doi:10.1073/pnas.1413024112
- Spawn, S., Dunn, S., Fiske, G., Natali, S., Schade, J., & Zimov, N. (2015). Summer methane ebullition from a headwater catchment in Northeastern Siberia. *Inland Waters*, 5(3), 224–230. doi:10.5268/IW-5.3.845
- Stevens, L. A., Behn, M. D., McGuire, J. J., Das, S. B., Joughin, I., Herring, T., Shean, D. E., & King, M. A. (2015). Greenland supraglacial lake drainages triggered by hydrologically induced basal slip. *Nature*, 522(7554), 73–76. doi:10.1038/nature14480
- Valletta, R. D., Willenbring, J. K., Lewis, A. R., Ashworth, A. C., & Caffee, M. (2015). Extreme decay of meteoric beryllium-10 as a proxy for persistent aridity. *Scientific Reports*, 5. doi:10.1038/srep17813
- Walter, F., Roux, P., Roeoesli, C., Lecointre, A., Kilb, D., & Roux, P.-F. (2015). Using glacier seismicity for phase velocity measurements and Green's function retrieval. *Geophysical Journal International*, 201(3), 1722–1737. doi:10.1093/gji/ggv069

Willis, M. J., Melkonian, A. K., & Pritchard, M. E. (2015). Outlet glacier response to the 2012 collapse of the Matusevich Ice Shelf, Severnaya Zemlya, Russian Arctic. *Journal of Geophysical Research F: Earth Surface*, 120(10), 2040–2055. doi:10.1002/2015JF003544

Yang, K., Smith, L. C., Chu, V. W., Gleason, C. J., & Li, M. (2015). A caution on the use of surface digital elevation models to simulate supraglacial hydrology of the Greenland ice sheet. *IEEE Journal of Selected Topics N Applie Earth Observations and Remote Sensing*, 8(11), 5212–5224. doi:10.1109/JSTARS.2015.2483483

2014

Adams, B., Wall, D., Virginia, R., Broos, E., & Knox, M. (2014). Ecological Biogeography of the Terrestrial Nematodes of Victoria Land, Antarctica. *ZooKeys*, (419), 29–71. doi:10.3897/zookeys.419.7180

Andrews, L. C., Catania, G. A., Hoffman, M. J., Gulley, J. D., Lüthi, M. P., Ryser, C., Hawley, R. L., & Neumann, T. A. (2014). Direct observations of evolving subglacial drainage beneath the Greenland Ice Sheet. *Nature*, 514(7520), 80–83. doi:10.1038/nature13796

Balsler, A. W., Jones, J. B., & Gens, R. (2014). Timing of retrogressive thaw slump initiation in the Noatak Basin, northwest Alaska, USA. *Journal of Geophysical Research: Earth Surface*, 119(5), 1106–1120. doi:10.1002/2013JF002889

Berthier, E., Vincent, C., Magnússon, E., Gunnlaugsson, Á. Þ., Pitte, P., Le Meur, E., Masiokas, M., Ruiz, L., Pálsson, F., Belart, J. M. C., & Wagnon, P. (2014). Glacier topography and elevation changes derived from Pléiades sub-meter stereo images. *The Cryosphere*, 8(6), 2275–2291. doi:10.5194/tc-8-2275-2014

Buizert, C., Baggenstos, D., Jiang, W., Purtschert, R., Petrenko, V. V., Lu, Z. T., Müller, P., Kuhl, T., Lee, J., Severinghaus, J. P., Brook, E. J., Muller, P., Kuhl, T., Lee, J., Severinghaus, J. P., & Brook, E. J. (2014). Radiometric 81Kr dating identifies 120,000-year-old ice at Taylor Glacier, Antarctica. *Proceedings of the National Academy of Sciences*, 111(19), 6876–6881. doi:10.1073/pnas.1320329111

Cassano, J. J. (2014). Observations of atmospheric boundary layer temperature profiles with a small unmanned aerial vehicle. *Antarctic Science*, 26(2), 205–213. doi:10.1017/S0954102013000539

Enderlin, E. M., & Hamilton, G. S. (2014). Estimates of iceberg submarine melting from high-resolution digital elevation models: Application to Sermilik Fjord, East Greenland. *Journal of Glaciology*, 60(224), 1084–1092. doi:10.3189/2014JG14J085

Fried, M. J., Hulbe, C. L., & Fahnestock, M. A. (2014). Grounding-line dynamics and margin lakes. *Annals of Glaciology*, 55(66), 87–96. doi:10.3189/2014AoG66A216

Goldberg, D., Olivares, M., Li, Z., & Klein, A. G. (2014). Maps & GIS Data Libraries in the Era of Big Data and Cloud Computing. *Journal of Map & Geography Libraries*, 10(1), 100–122. doi:10.1080/15420353.2014.893944

- Herbold, C. W., Lee, C. K., McDonald, I. R., & Cary, S. C. (2014). Evidence of global-scale aeolian dispersal and endemism in isolated geothermal microbial communities of Antarctica. *Nature Communications*, 5. doi:10.1038/ncomms4875
- Lampkin, D. J., & Vanderberg, J. (2014). Supraglacial melt channel networks in the Jakobshavn Isbræ region during the 2007 melt season. *Hydrological Processes*, 28(25), 6038–6053. doi:10.1002/hyp.10085
- LaRue, M. A., Lynch, H. J., Lyver, P. O. B., Barton, K., Ainley, D. G., Pollard, A., Fraser, W. R., & Ballard, G. (2014). A method for estimating colony sizes of Adélie penguins using remote sensing imagery. *Polar Biology*, 37(4), 507–517. doi:10.1007/s00300-014-1451-8
- Legleiter, C. J., Tedesco, M., Smith, L. C., Behar, A. E., & Overstreet, B. T. (2014). Mapping the bathymetry of supraglacial lakes and streams on the Greenland ice sheet using field measurements and high-resolution satellite images. *The Cryosphere*, 8(1), 215–228. doi:10.5194/tc-8-215-2014
- Li, G., West, A. J., Densmore, A. L., Jin, Z., Parker, R. N., & Hilton, R. G. (2014). Seismic mountain building: Landslides associated with the 2008 Wenchuan earthquake in the context of a generalized model for earthquake volume balance. *Geochemistry, Geophysics, Geosystems*, 15(4), 833–844. doi:10.1002/2013GC005067
- Lorant, M. M., Natali, S. M., Berner, L. T., Goetz, S. J., Holmes, R. M., Davydov, S. P., Zimov, N. S., & Zimov, S. A. (2014). Siberian tundra ecosystem vegetation and carbon stocks four decades after wildfire. *Journal of Geophysical Research: Biogeosciences*, 119(11), 2144–2154. doi:10.1002/2014JG002730
- Lynch, H. J., & Larue, M. A. (2014). First global census of the Adélie Penguin. *The Auk*, 131(4), 457–466. doi:10.1642/AUK-14-31.1
- McGrath, D., Steffen, K., Holland, P. R., Scambos, T., Rajaram, H., Abdalati, W., & Rignot, E. (2014). The structure and effect of suture zones in the Larsen C Ice Shelf, Antarctica. *Journal of Geophysical Research: Earth Surface*, 119(3), 588–602. doi:10.1002/2013JF002935
- Mu, L., Stammerjohn, S. E., Lowry, K. E., & Yager, P. L. (2014). Spatial variability of surface pCO₂ and air-sea CO₂ flux in the Amundsen Sea Polynya, Antarctica. *Elementa: Science of the Anthropocene*, 2(1). doi:10.12952/journal.elementa.000036
- Obryk, M. K., Doran, P. T., & Priscu, J. C. (2014). The permanent ice cover of Lake Bonney, Antarctica: The influence of thickness and sediment distribution on photosynthetically available radiation and chlorophyll-a distribution in the underlying water column. *Journal of Geophysical Research: Biogeosciences*, 119(9), 1879–1891. doi:10.1002/2014JG002672
- Pope, A., Rees, W. G., Fox, A. J., & Fleming, A. (2014). Open access data in polar and cryospheric remote sensing. *Remote Sensing*, 6(7), 6183–6220. doi:10.3390/rs6076183
- Röösli, C., Walter, F., Husen, S., Andrews, L. C., Lüthi, M. P., Catania, G. A., & Kissling, E. (2014). Sustained seismic tremors and icequakes detected in the ablation zone of the Greenland ice sheet. *Journal of Glaciology*, 60(221), 563–575. doi:http://dx.doi.org/10.3189/2014JG13J210

- Stauffer, G. E., Rotella, J. J., Garrott, R. A., & Kendall, W. L. (2014). Environmental correlates of temporary emigration for female Weddell seals and consequences for recruitment. *Ecology*, 95(9), 2526–2536. doi:10.1890/13-1966.1
- Tewksbury, B. J., Hogan, J. P., Kattenhorn, S. A., Mehrtens, C. J., & Tarabees, E. A. (2014). Polygonal faults in chalk: Insights from extensive exposures of the Khoman Formation, Western Desert, Egypt. *Geology*, 42(6), 479–482. doi:10.1130/G35362.1
- Ulrich, M., Grosse, G., Strauss, J., & Schirrmeister, L. (2014). Quantifying Wedge-ice volumes in Yedoma and thermokarst basin deposits. *Permafrost and Periglacial Processes*, 25(3), 151–161. doi:10.1002/ppp.1810
- Zinke, R., Hollingsworth, J., & Dolan, J. F. (2014). Surface slip and off-fault deformation patterns in the 2013 MW 7.7 Balochistan, Pakistan earthquake: Implications for controls on the distribution of near-surface coseismic slip. *Geochemistry, Geophysics, Geosystems*, 15(12), 5034–5050. doi:10.1002/2014GC005538

2013

- Campbell, S., Balco, G., Todd, C., Conway, H., Huybers, K., Simmons, C., & Vermeulen, M. (2013). Radar-detected englacial stratigraphy in the Pensacola Mountains, Antarctica: Implications for recent changes in ice flow and accumulation. *Annals of Glaciology*, 54(63), 91–100. doi:10.3189/2013AoG63A371
- Casanovas, P. V. (2013). Novel approaches to studying biodiversity in remote areas: Distribution of lichens and penguins across the Antarctic Peninsula. University of Maryland.
- Cooper, A. K. (2013). Future progress in Antarctic science: improving data care, sharing and collaboration. *Earth and Environmental Science Transactions of the Royal Society of Edinburgh*, 104(1), 69–80. doi:10.1017/S1755691013000091
- Denfeld, B. A., Frey, K. E., Sobczak, W. V., Mann, P. J., & Holmes, R. M. (2013). Summer CO₂ evasion from streams and rivers in the Kolyma river basin, north-east Siberia. *Polar Research*, 32. doi:10.3402/polar.v32i0.19704
- Foreman, C. M., Cory, R. M., Morris, C. E., SanClements, M. D., Smith, H. J., Lisle, J. T., Miller, P. L., Chin, Y.-P., & McKnight, D. M. (2013). Microbial growth under humic-free conditions in a supraglacial stream system on the Cotton Glacier, Antarctica. *Environmental Research Letters*, 8(3). doi:10.1088/1748-9326/8/3/035022
- Gooseff, M. N., Barrett, J. E., & Levy, J. S. (2013). Shallow groundwater systems in a polar desert, McMurdo Dry Valleys, Antarctica [Systèmes peu profonds d'eau souterraine dans un désert polaire, Vallées sèches de McMurdo, Antarctique]. *Hydrogeology Journal*, 21(1), 171–183. doi:10.1007/s10040-012-0926-3

- Heldmann, J. L. L., Pollard, W., McKay, C. P. P., Marinova, M. M. M., Davila, A., Williams, K. E. E., Lacelle, D., & Andersen, D. T. T. (2013). The high elevation Dry Valleys in Antarctica as analog sites for subsurface ice on Mars. *Planetary and Space Science*, 85, 53–58. doi:10.1016/j.pss.2013.05.019
- Joughin, I., Das, S. B., Flowers, G. E., Behn, M. D., Alley, R. B., King, M. A., Smith, B. E., Bamber, J. L., van den Broeke, M. R., & van Angelen, J. H. (2013). Influence of ice-sheet geometry and supraglacial lakes on seasonal ice-flow variability. *The Cryosphere*, 7(4), 1185–1192. doi:10.5194/tc-7-1185-2013
- Levy, J. S., Fountain, A. G., Dickson, J. L., Head, J. W., Okal, M., Marchant, D. R., & Watters, J. (2013). Accelerated thermokarst formation in the McMurdo Dry Valleys, Antarctica. *Scientific Reports*, 3. doi:10.1038/srep02269
- Levy, J. S., Fountain, A. G., O'Connor, J. E., Welch, K. A., & Lyons, W. B. (2013). Garwood valley, antarctica: A new record of last glacial maximum to holocene glaciofluvial processes in the mcmurdo dry valleys. *Geological Society of America Bulletin*, 125(9–10), 1484–1502. doi:10.1130/B30783.1
- Murry, K. T., Miller, M. F., & Bowser, S. S. (2013). Depositional processes beneath coastal multi-year sea ice. *Sedimentology*, 60(2), 391–410. doi:10.1111/j.1365-3091.2012.01345.x
- Yang, K., & Smith, L. C. (2013). Supraglacial Streams on the Greenland Ice Sheet Delineated From Combined Spectral–Shape Information in High-Resolution Satellite Imagery. *IEEE Geoscience and Remote Sensing Letters*, 10(4), 801–805. doi:10.1109/LGRS.2012.2224316
- Zubrzycki, S., Kutzbach, L., Grosse, G., Desyatkin, A., & Pfeiffer, E.-M. (2013). Organic carbon and total nitrogen stocks in soils of the Lena River Delta. *Biogeosciences*, 10(6), 3507–3524. doi:10.5194/bg-10-3507-2013

2012

- Bell, E. M. (2012). *Life at extremes: environments, organisms and strategies for survival*. Wallingford, OX: CABI. doi:10.1079/9781845938147.0000
- Berner, L. T., Beck, P. S. A., Loranty, M. M., Alexander, H. D., MacK, M. C., & Goetz, S. J. (2012). Cajander larch (*Larix cajanderi*) biomass distribution, fire regime and post-fire recovery in northeastern Siberia. *Biogeosciences*, 9(10), 3943–3959. doi:10.5194/bg-9-3943-2012
- Cochran, J. R., & Bell, R. E. (2012). Inversion of IceBridge gravity data for continental shelf bathymetry beneath the Larsen Ice Shelf, Antarctica. *Journal of Glaciology*, 58(209), 540–552. doi:10.3189/2012JoG11j033
- Eveland, J., Gooseff, M. N., Lampkin, D. J., Barrett, J. E., & Takacs-Vesbach, C. (2012). Spatial and temporal patterns of snow accumulation and aerial ablation across the McMurdo Dry Valleys, Antarctica. *Hydrological Processes*, 27(20), 2864–2875. doi:10.1002/hyp.9407

- Howat, I. M., Jezek, K., Studinger, M., MacGregor, J. A., Paden, J., Floricioiu, D., Russell, R., Linkswiler, M., & Dominguez, R. T. (2012). Rift in antarctic glacier: A unique chance to study ice shelf retreat. *Eos, Transactions American Geophysical Union*, 93(8), 77–78. doi:10.1029/2012EO080001
- Levy, J. (2012). Hydrological characteristics of recurrent slope lineae on Mars: Evidence for liquid flow through regolith and comparisons with Antarctic terrestrial analogs. *Icarus*, 219(1), 1–4. doi:10.1016/j.icarus.2012.02.016
- Lynch, H. J., White, R., Black, A. D., & Naveen, R. (2012). Detection, differentiation, and abundance estimation of penguin species by high-resolution satellite imagery. *Polar Biology*, 35(6), 963–968. doi:10.1007/s00300-011-1138-3
- Lyons, W. B., Welch, K. A., Gardner, C. B., Jaros, C., Moorhead, D. L., Knoepfle, J. L., & Doran, P. T. (2012). The geochemistry of upland ponds, Taylor Valley, Antarctica. *Antarctic Science*, 24(1), 3–14. doi:10.1017/S0954102011000617
- McGrath, D., Steffen, K., Rajaram, H., Scambos, T., Abdalati, W., & Rignot, E. (2012). Basal crevasses on the Larsen C Ice Shelf, Antarctica: Implications for meltwater ponding and hydrofracture. *Geophysical Research Letters*, 39(16). doi:10.1029/2012GL052413
- McGrath, D., Steffen, K., Scambos, T., Rajaram, H., Casassa, G., & Rodriguez Lagos, J. L. (2012). Basal crevasses and associated surface crevassing on the Larsen C ice shelf, Antarctica, and their role in ice-shelf instability. *Annals of Glaciology*, 53(60), 10–18. doi:10.3189/2012AoG60A005
- Michaud, A. B., Šabacká, M., & Priscu, J. C. (2012). Cyanobacterial diversity across landscape units in a polar desert: Taylor Valley, Antarctica. *FEMS Microbiology Ecology*, 82(2), 268–278. doi:10.1111/j.1574-6941.2012.01297.x
- Naveen, R., Lynch, H. J., Forrest, S., Mueller, T., & Polito, M. (2012). First direct, site-wide penguin survey at Deception Island, Antarctica, suggests significant declines in breeding chinstrap penguins. *Polar Biology*, 35(12), 1879–1888. doi:10.1007/s00300-012-1230-3
- Pollard, W., Lacelle, D., Davila, A., Andersen, D., McKay, C., Marinova, M., & Heldmann, J. (2012). Ground ice conditions in University Valley, McMurdo Dry Valleys, Antarctica. In *Tenth International Conference on Permafrost* (pp. 305–310).
- Ribe, N. M. (2012). All bent out of shape: buckling of sheared fluid layers. *Journal of Fluid Mechanics*, 694, 1–4. doi:10.1017/jfm.2011.532
- Smyth, R. L., Sobrino, C., Phillips-Kress, J., Kim, H.-C., & Neale, P. J. (2012). Phytoplankton photosynthetic response to solar ultraviolet irradiance in the Ross Sea Polynya: Development and evaluation of a time-dependent model with limited repair. *Limnology and Oceanography*, 57(6), 1602–1618. doi:10.4319/lo.2012.57.6.1602
- Spaulding, N. E., Spikes, V. B., Hamilton, G. S., Mayewski, P. A., Dunbar, N. W., Harvey, R. P., Schutt, J., & Kurbatov, A. V. (2012). Ice motion and mass balance at the Allan Hills blue-ice area, Antarctica, with implications for paleoclimate reconstructions. *Journal of Glaciology*, 58(208), 399–406. doi:10.3189/2012JogG11J176

Yager, P. L., Sherrell, R. M., Stammerjohn, S. E., Alderkamp, A.-C. C., Schofield, O., Abrahamsen, E. P., ... Wilson, S. (2012). ASPIRE: The Amundsen sea Polynya international research expedition. *Oceanography*, 25(3), 40–53. doi:10.5670/oceanog.2012.73

2011

Andersen, D. T., Sumner, D. Y., Hawes, I., Webster-Brown, J., & McKay, C. P. (2011). Discovery of large conical stromatolites in Lake Untersee, Antarctica. *Geobiology*, 9(3), 280–293. doi:10.1111/j.1472-4669.2011.00279.x

Barnhart, W. D., Willis, M. J., Lohman, R. B., & Melkonian, A. K. (2011). InSAR and Optical Constraints on Fault Slip during the 2010-2011 New Zealand Earthquake Sequence. *Seismological Research Letters*, 82(6), 815–823. doi:10.1785/gssrl.82.6.815

Borghini, F., Colacevich, A., Caruso, T., & Bargagli, R. (2011). An Update on Sedimentary Pigments in Victoria Land Lakes (East Antarctica). *Arctic, Antarctic, and Alpine Research*, 43(1), 22–34. doi:10.1657/1938-4246-43.1.22

Brunt, K. M., Okal, E. A., & Macayeal, D. R. (2011). Antarctic ice-shelf calving triggered by the Honshu (Japan) earthquake and tsunami, March 2011. *Journal of Glaciology*, 57(205), 785–788. doi:10.3189/002214311798043681

Eveland, J. W. (2011). Snow Dynamics in a Polar Desert, McMurdo Dry Valleys, Antarctica. Penn State University. Retrieved from <https://etda.libraries.psu.edu/catalog/12680>

Lacelle, D., Davila, A. F., Pollard, W. H., Andersen, D., Heldmann, J., Marinova, M., & McKay, C. P. (2011). Stability of massive ground ice bodies in University Valley, McMurdo Dry Valleys of Antarctica: Using stable O-H isotope as tracers of sublimation in hyper-arid regions. *Earth and Planetary Science Letters*, 301(1–2), 403–411. doi:10.1016/j.epsl.2010.11.028

Levy, J. S., Fountain, A. G., Gooseff, M. N., Welch, K. A., & Lyons, W. B. (2011). Water tracks and permafrost in Taylor Valley, Antarctica: Extensive and shallow groundwater connectivity in a cold desert ecosystem. *Geological Society of America Bulletin*, 123(11–12), 2295–2311. doi:10.1130/B30436.1

Power, S., Hell, K., & McKnight, D. (2011). Algal Processes in Lake Fryxell in the McMurdo Dry Valleys, Antarctica. Retrieved from <http://www.colorado.edu/reu/Posters/2014/6-Power-Poster.pdf>

Vermeulen, M., Todd, C., Balco, G., Huybers, K., Campbell, S., & Simmons, C. (2011). Glacial Geomorphology of the Williams and Schmidt Hills, Pensacola Mountains, Antarctica. In GSA Annual Meetings. Retrieved from http://noblegas.berkeley.edu/~balcs/pensacola/todd/Hegland_WAIS_Poster.pdf

2010

Jepsen, S. M., Adams, E. E., & Priscu, J. C. (2010). Sediment Melt-Migration Dynamics in Perennial Antarctic Lake Ice. *Arctic, Antarctic, and Alpine Research*, 42(1), 57–66. doi:10.1657/1938-4246-42.1.57

Paulsen, T. S., & Wilson, T. J. (2010). New criteria for systematic mapping and reliability assessment of monogenetic volcanic vent alignments and elongate volcanic vents for crustal stress analyses. *Tectonophysics*, 482(1–4), 16–28. doi:10.1016/j.tecto.2009.08.025

Shean, D. E., & Marchant, D. R. (2010). Seismic and GPR surveys of Mullins Glacier, mcmurdo dry valleys, Antarctica: Ice thickness, internal structure and implications for surface ridge formation. *Journal of Glaciology*, 56(195), 48–64. doi:10.3189/002214310791190901

2009

Pyne, A., & Wilson, G. (2009). Antarctic Drilling Recovers Stratigraphic Records From the Continental Margin. *Eos, Transactions American Geophysical Union*, 90(11), 90. doi:10.1029/2009EO110002

Kooima, R., Leigh, J., Johnson, A., Roberts, D., SubbaRao, M., & DeFanti, T. A. (2009). Planetary-Scale Terrain Composition. *IEEE Transactions on Visualization and Computer Graphics*, 15(5), 719–733. doi:10.1109/TVCG.2009.43

Rellinger, A. N., Kiene, R. P., del Valle, D. A., Kieber, D. J., Slezak, D., Harada, H., Bisgrove, J., & Brinkley, J. (2009). Occurrence and turnover of DMSP and DMS in deep waters of the Ross Sea, Antarctica. *Deep Sea Research Part I: Oceanographic Research Papers*, 56(5), 686–702. doi:10.1016/j.dsr.2008.12.010

2008

Helterbrand, W. S., & Sieverling, J. B. (2008). Proceedings of the U.S. Geological Survey Seventh Biennial Geographic Information Science Workshop. In *USGS GIS Workshop 2008*. Denver, Colorado.