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EDUCATION

- 2015 Ph.D. **Oceanography**, University of New Hampshire
Dissertation: Unraveling depositional and diagenetic signals in magnetic susceptibility in methane-bearing sediments along the Indian, Cascadia, and Japanese margins
- 2007 M.S. **Earth Sciences**, University of New Hampshire
Geochemical Systems Specialization
Thesis: High frequency measurements of soil carbon dioxide flux at Harvard Forest
- 2004 B.S. **Geology**, Michigan Technological University
Magna cum laude
Minors: Applied Geophysics, Spanish

PROFESSIONAL EXPERIENCE

- 2019 – present **Research Associate**, University of Texas at Austin (UT), Institute for Geophysics, Jackson School of Geosciences, Austin, TX
- 2015 – 2019 **Postdoctoral Fellow**, UT Institute for Geophysics
ExxonMobil-UT Energy Institute Emerging Technology Fellow 2017-2019
- 2012 – 2015 **Graduate Research Assistant**, University of New Hampshire (UNH), Department of Earth Sciences, Durham, NH
- Summer 2012 **Postgraduate Researcher**, DOE-National Energy Technology Laboratory, Albany, OR
- 2011 **College of Engineering and Physical Sciences Fellow**, UNH
- 2008 – 2010 **Geochemist**, Knight Piésold Consulting, Denver, CO
- 2007 – 2008 **Sedimentology Laboratory Manager**, UNH
- 2005 – 2007 **Graduate Teaching Assistant**, UNH
- 2004 – 2005 **Math Teacher/Education Technician**, Edward Little High School, Auburn, ME
- Summer 2004 **GSA GeoCorps Intern**, Rogue River-Siskiyou National Forest, Gold Beach, OR
- 2003 – 2004 **Undergraduate Research Assistant**, Michigan Technological University (MTU)
- 2003 **Biological Science Aid**, US Forest Service North Central Research Station, Houghton, MI
- Summer 2002 **Natural Resource Mitigation Intern**, Maine Department of Transportation, Augusta, ME

PEER-REVIEWED PUBLICATIONS

(*Mentored graduate student **Mentored undergraduate student)

13. Thomas, C.M., **Phillips, S.C.**, Flemings, P.B., Santra, M., **Hammon, H., Collett, T.S., Cook, A., Pettigrew, T., Mimitz, M., Holland, M., and Schultheiss, P., accepted. Pressure-coring operations during Expedition UT-GOM2-1 in Green Canyon Block 955, northern Gulf of Mexico. *AAPG Bulletin*
12. Lee, J., Kim, S., Lee, J.I., Cho, H.G., **Phillips, S.C.**, and Khim, B.-K., in press. Monsoon-influenced variation of clay mineral compositions and detrital Nd-Sr isotopes in the western Andaman Sea (IODP Site U1447) since the late Miocene. *Palaeogeography Palaeoclimatology Palaeoecology*
<https://doi.org/10.1016/j.palaeo.2019.109339>

11. **Phillips, S.C.**, Flemings, P., You, K., Meyer, D., and *Dong, T., 2019. Investigation of in situ salinity and methane hydrate dissociation in coarse-grained sediments by slow, stepwise depressurization. *Marine and Petroleum Geology* 109, 128-144. <https://doi.org/10.1016/j.marpetgeo.2019.06.015>
10. Wik, M., Johnson, J.E., Crill, P.M., DeStasio, J.P., Erickson, L., Halloran, M.J., Fahnestock, M.F., Crawford, M.K., **Phillips, S.C.**, and Varner, R.K., 2018. Sediment characteristics and methane ebullition in three subarctic lakes. *Journal of Geophysical Research- Biogeosciences* 123, 2399-2411. <https://doi.org/10.1029/2017JG004298>
9. Meyer, D.W., Flemings, P.B., DiCarlo, D., You, K., **Phillips, S.C.**, and Kneafsey, T.J., 2018. Experimental investigation of gas flow and hydrate formation within the hydrate stability zone. *Journal of Geophysical Research- Solid Earth*, 123, 5350-5371. <https://doi.org/10.1029/2018JB015748>
8. **Phillips, S.C.**, Hong, W.-L., Johnson, J.E., Fahnestock, M.F., and Bryce, J.G., 2018. Authigenic carbonate formation influenced by freshwater inputs and methanogenesis in coal-bearing strata offshore Shimokita, Japan (IODP Site C0020). *Marine and Petroleum Geology* 96, 288-303. <https://doi.org/10.1016/j.marpetgeo.2018.06.007>
7. **Phillips, S.C.**, Johnson, J.E., Clyde, W.C., Setera, J.B., Maxbauer, D.P., Severmann, S., and Riedinger, N., 2017. Rock magnetic and geochemical evidence for authigenic magnetite formation via iron reduction in coal-bearing sediments offshore Shimokita Peninsula, Japan (IODP Site C0020). *Geochemistry Geophysics Geosystems*, 18, 2076-2098, <https://doi.org/10.1002/2017GC006943>
6. Inagaki, F., Hinrichs, K.-U., Kubo, Y., Bowles, M.W., Heuer, V.B., Hong, W.-L., Hoshino, T., Ijiri, A., Imachi, H., Ito, M., Kaneko, M., Lever, M.A., Lin, Y.-S., Methé, B.A., Morita, S., Morono, Y., Tanikawa, W., Bihan, M., Bowden, S.A., Elvert, M., Glombitza, C., Gross, D., Harrington, G., Hori, T., Li, K., Limmer, D., Liu, C.-H., Murayama, M., Ohkouchi, N., Park, Y.-S., **Phillips, S.C.**, Prieto-Mollar, X., Purkey, M., Riedinger, N., Sanada, Y., Sauvage, J., Snyder, G., Susilawati, R., Takano, Y., Tasumi, E., Terada, T., Tomaru, H., Trembath-Reichert, E., and Yamada, Y., 2015. Exploring deep microbial life in coal-bearing sediment down to ~2.5 km below the ocean floor. *Science* 349, 420- 424, doi: 10.1126/science.aaa6882
5. **Phillips, S.C.**, Johnson, J.E., Underwood, M.B., Guo, J., Giosan, L., and Rose, K., 2014. Long-timescale variation in bulk and clay mineral composition of Indian continental margin sediments in the Bay of Bengal, Andaman Sea, and Arabian Sea. *Marine and Petroleum Geology* 58A, 117-138, <https://doi.org/10.1016/j.marpetgeo.2014.06.018>
4. Johnson, J.E., **Phillips, S.C.**, Torres, M.E., Piñero, E., Rose, K., and Giosan, L., 2014. Influence of total organic carbon deposition on the inventory of methane hydrate in the Indian continental margins. *Marine and Petroleum Geology* 58A, 406-424, <https://doi.org/10.1016/j.marpetgeo.2014.08.021>
3. **Phillips, S.C.**, Johnson, J.E., Giosan, L., and Rose, K., 2014. Monsoon-influenced variation in productivity and lithogenic sediment flux since 110 ka in the offshore Mahanadi Basin, northern Bay of Bengal. *Marine and Petroleum Geology* 58A, 502-525, <https://doi.org/10.1016/j.marpetgeo.2014.05.007>
2. **Phillips, S.C.**, Johnson, J.E., Miranda, E., and Disenhof, C., 2011. Improving CHN measurements in carbonate-rich marine sediments. *Limnology and Oceanography: Methods* 9, 194-203, <https://doi.org/10.4319/lom.2011.9.194>
1. **Phillips, S. C.**, Varner, R.K., Frolking, S., Munger, J.W., Bubier, J.L., Wofsy, S.C., and Crill, P.M., 2010. Interannual, seasonal, and diel variation in soil respiration relative to ecosystem respiration at a wetland to upland slope at Harvard Forest. *Journal of Geophysical Research- Biogeosciences* G115, G02019, <https://doi.org/10.1029/2008JG000858>

SUBMITTED MANUSCRIPTS

In revision

2. Fang, Y., Flemings, P.B., Daigle, H., **Phillips, S.C.**, P. K. Meazell, and You, K., revision submitted. Petrophysical properties of the GC 955 hydrate reservoir inferred from reconstituted sediments: Implications for hydrate formation and production. *AAPG Bulletin*

1. **Phillips, S.C.**, Flemings, P.B., Holland, M.E., Schultheiss, P.J., Petrou, E.G., Waite, W.F., Jang, J., and ****Hammon, H.**, revision submitted. High concentration methane hydrate in a silt reservoir from the deepwater Gulf of Mexico. *AAPG Bulletin*

In review

1. Zhao, J., Wang, J., **Phillips, S.C.**, Liang, J., Su, P., Lin, Q., Liu, J., under review. Non-evaporitic gypsum formed due to fluctuations of the sulfate-methane transition zone (SMTZ) and/or mass transport deposits in the northern South China Sea. *Marine Chemistry*
2. Flemings, P.B., **Phillips, S.C.**, Boswell, R., Collett, T.S., Cook, A.E., Dong, T., Frye, M., Guerin, G., Goldberg, D.S., Holland, M.E., Jang, J., Meazell, K., Morrison, J., O'Connell, J.I., Pettigrew, T., Petrou, E.G., Polito, P.J., Portnov, A., Santra, M., Schultheiss, P.J., Seol, Y., Shedd, W., Solomon, E.A., Thomas, C.M., Waite, W.F., and You, K., under review. Pressure coring a Gulf of Mexico deepwater turbidite reservoir: Initial results from the UT-GOM2-1 Hydrate Pressure Coring Expedition. *AAPG Bulletin*

GRANTS

2019	Deepwater Methane Hydrate Characterization and Scientific Assessment, U.S. Department of Energy (DOE)/National Energy Technology Laboratory (NETL) Project #FE0023919: Phases 4, 5, and 6. PI: Peter Flemings. Co-PI: Steve Phillips, Kehua You. Subawards to five other institutions. Direct support for Phillips: \$208,579	\$41,607,568
2017	ExxonMobil-UT Energy Institute Research Agreement – Characterization and modelling of methane hydrate reservoirs in the Gulf of Mexico PI: Jung-Fu Lin; Co-Is: Steve Phillips, Peter Flemings, Kehua You, Hugh Daigle \$116,565 for geochemistry/microbiology task led by Phillips	\$921,916
2015	IODP-US Science Support Program Post Expedition Activity Award – Expedition 353	\$14,998
2013	IODP-US Science Support Program Post Expedition Activity Award – Expedition 337	\$14,426
2012	DOE/NETL hydrate grant – Reconstructing paleo-SMT positions on the Cascadia Margin using magnetic susceptibility (DE-FE0010120) PI: Joel Johnson; Grad student contributor: Steve Phillips	\$188,073
2012	ACS-PRF New Directions Grant – Developing a new proxy approach for reconstructing paleo-methane and sulfate fluxes in gas hydrate bearing stratigraphy PI: Joel Johnson; Grad student contributor: Steve Phillips	\$100,000
2012	Geological Society of America Graduate Research Grant	\$2,348
2012	American Association of Petroleum Geologists - Paul Danheim Nelson Named Grant	\$2,250
2011	UNH Natural Resources and Earth System Science Student Support Fund	\$2000
2011	UNH College of Engineering and Physical Sciences Fellowship	\$54,346

OTHER AWARDS

- 2018 UTIG Outstanding Postdoctoral Fellow Award
- 2016 University of Minnesota Institute for Rock Magnetism Visiting Fellowship
- 2012 Geological Society of America – Alexander and Geraldine Wanek Research Award

OCEANOGRAPHIC CRUISE EXPERIENCE

- Staff Scientist**, *DV Q4000*, May 1-May 24, 2017, Genesis of Methane Hydrates in the Northern Gulf of Mexico (GOM²), UT-GOM2-1: Hydrate Pressure Coring Expedition, Brownsville, TX to Green Canyon
- Sedimentologist**, *DV JOIDES Resolution*, November 30, 2014-January 29, 2015. International Ocean Discovery Program (IODP) Expedition 353: Indian Monsoon Rainfall.
- Sedimentologist**, *DV Chikyu*, July 31-September 21, 2012. Integrated Ocean Drilling Program (IODP) Expedition 337: Deep Coalbed Biosphere Offshore Shimokita.
- Sedimentologist**, *RV Mare Nigrum*, July 18-August 10, 2011, Constanța, Romania to Black Sea offshore Georgia.

Geochemist, *RV Atlantis*, Cruise AT-15, Leg 27, December 8-22, 2007, Manzanillo, Mexico to 9° N East Pacific Rise. *DSV Alvin* dive 4378.

Instructor/geochemist, *RV Gulf Challenger*, 30+ teaching day cruises (2005 to 2014) on the Great Bay Estuary, NH and Gulf of Maine, and a research cruise investigating sediment methane in Great Bay Estuary, April 2013.

COURSES TAUGHT

<u>Year</u>	<u>Course</u>
Spring 2015	Introduction to Climate (UNH) (12 students)
Spring 2014	Introduction to Oceanography (UNH) (75 students)

OTHER TEACHING EXPERIENCE

Fall 2012 Workshop instructor, UNH: GEOChem Program
Spring 2012 Graduate Teaching Assistant, UNH: Biological Oceanography
Fall 2009 Temporary Lecturer (3 weeks), UNH: Introduction to Oceanography
Summer 2008 Lab instructor, UNH: Transforming Earth System Science Education
2005 – 2007 Graduate Teaching Assistant, UNH: Introduction to Oceanography

PROFESSIONAL SERVICE

University Service

- UTIG Seminar Committee (2019 – present)
- UTIG Technical Staff Evaluation Committee (2019)
- Poster judge for the UT Graduate Research Symposium (2016, 2018)
- Poster judge for the UNH Undergraduate Research Conference (2014)
- Student representative on the UNH School of Marine Science and Ocean Engineering Education and Curriculum Advisory Group (2013 – 2015)
- Advisor to the UNH Marine Docent Program plate tectonics group (2012 – 2013)

Service to Professional Organizations

- Workshop committee for the 2020 IODP-USSSP workshop: Demystifying the IODP Proposal Process for Early Career Scientists: Pacific Ocean
- Communications officer for the GSA Marine and Coastal Geoscience Division (2019 – present)
- Organizing committee to establish the GSA Marine and Coastal Geoscience Division (2019)
- Judge for the GSA Sedimentary Geology Division/SEPM Student Research Posters (2019)
- Co-chair for session on Developments in Gas Hydrates Exploration Methods at the 2019 AAPG Workshop: Gas Hydrates – From Potential Geohazard to Carbon Efficient Fuel?
- Primary convener for AGU Fall Meeting 2018 Session: Gas-hydrate-bearing sediments: Recent advances in characterization, experiments, and modeling
- Co-convener for AGU Fall Meeting 2016 Session: Hydrate-bearing sediments: Characterization, modeling, and thermal, hydrological and geomechanical behavior
- Discussion leader during the Gordon Research Seminar on Natural Gas Hydrate Systems, Feb 27, 2016, Galveston, TX, session: Microscopic interfaces and geomechanics
- Judge for the AGU Fall Meeting Outstanding Student Paper Awards (2016 – 2018)

Journal Editorship

- Associate editor, *Marine and Petroleum Geology* (2019-present)

Journal Reviewer

Boreal Environment Research | *Energies* | *Geochemistry Geophysics Geosystems* | *Geology* | *Geological Journal* | *Geo-Marine Letters* | *GeoResJ* | *Geosciences* | *Interpretation* | *Journal of Asian Earth Sciences* | *Journal of Geophysical Research-Solid Earth* | *Journal of Marine Science and Engineering* | *Journal of Ocean University of China* | *Journal of Petroleum Science and Engineering* | *Marine and Petroleum Geology* | *Minerals* | *Palaeogeography Palaeoclimatology Palaeoecology* | *Proceedings of the Integrated Ocean Drilling Program* | *Quaternary Science Reviews* | *Scientific Reports*

WORKSHOP PARTICIPATION

- IODP NEXT: Scientific Ocean Drilling Beyond 2023, May 6-7, 2019, Denver, CO.
- GOM2 Workshop, September 24-25, 2018, Columbus, OH.
- IODP 353: Indian Monsoon Rainfall Post-Expedition Science Meeting, November 6-8, 2017, Bangalore, India.
- IODP *JOIDES Resolution* Assessment Workshop, September 26-27, 2017, Denver, CO. Watchdog for IODP Expedition 353.
- IODP Indian Ocean Regional Synthesis Workshop, July 10-12, 2017, Narragansett, RI. Scribe for the Chemical Weathering and Monsoon Records group.
- IODP Proposal Development Workshop: Drilling strategies for assessing links between Quaternary Gulf Stream dynamics, pore pressure evolution, and slope stability on the Western North Atlantic Margin, April 11-13, 2017, Dallas, TX.
- IODP workshop: Demystifying the IODP proposal process for early career scientists: Atlantic Ocean/Gulf of Mexico, January 23-25, 2017, Austin, TX.
- IODP 337: Deep Coalbed Biosphere off Shimokita Post-Expedition Symposium, April 13-16, 2015 Kaohsiung, Taiwan
- Terrestrial Ecosystem Responses to Atmospheric and Climate Change (TERACC) Workshop on Analysis and Modeling of Automated Soil Respiration Measurements, September 12, 2007, Durham, NH

PROFESSIONAL MEMBERSHIPS

- American Geophysical Union (AGU)
- American Association of Petroleum Geologists (AAPG)
- Association for the Sciences of Limnology and Oceanography (ASLO)
- Geological Society of America (GSA)
- Geochemical Society (GS)
- Society for Sedimentary Geology (SEPM)

TECHNICAL REPORTS

10. **Phillips, S.C.**, 2018. Diagenetic degradation of paleoenvironmental signals in magnetic susceptibility in the northern Bay of Bengal. Visiting Fellow Report, *IRM Quarterly* (University of Minnesota Institute for Rock Magnetism), 27(4), 4-6, <http://www.irm.umn.edu/quarterly/irmq27-4.pdf>
9. Flemings, P.B., **Phillips, S.C.**, Collett, T., Cook, A., Boswell, R., and the UT-GOM2-1 Expedition Scientists, UT-GOM2-1 Hydrate Pressure Coring Expedition Report: Austin, TX (University of Texas Institute for Geophysics, TX). <https://ig.utexas.edu/energy/genesis-of-methane-hydrate-in-coarse-grained-systems/expedition-ut-gom2-1/reports/>
8. **Phillips, S.C.**, and Johnson, J.E., 2017. Data report: grain size distribution of unconsolidated sands offshore Shimokita Peninsula, Japan (IODP Site C0020). In Inagaki, F., Hinrichs, K.-U., Kubo, Y., and the Expedition 337 Scientists, *Proceedings of the Integrated Ocean Drilling Program, 337*: Tokyo (Integrated Ocean Drilling Program Management International, Inc.). doi:10.2204/iodp.proc.337.203.2017
7. **UT-GOM2-1 Science Team**, 2017. GOM² Expedition-1 successfully samples gas hydrate reservoirs in the deepwater Gulf of Mexico. Fire in the Ice: National Energy Technology Laboratory Methane Hydrate

News 17, 1-4, https://www.netl.doe.gov/File%20Library/Research/Oil-Gas/methane%20hydrates/MHNews_2017_Summer.pdf

6. Inagaki, F., Hinrichs, K.-U., Kubo, Y., and the **IODP Expedition 337 Scientists**, 2016. IODP Expedition 337: Deep Coalbed Biosphere off Shimokita - Microbial processes and hydrocarbon system associated with deeply buried coalbed in the ocean. *Scientific Drilling*, 21, 17-28. doi:10.5194/sd-21-17-2016
5. Clemens, S.C., Kuhnt, W., LeVay, L.J., and the **Expedition 353 Scientists**, 2016. Indian Monsoon Rainfall. *Proceedings of the International Ocean Discovery Program*, 353: College Station, TX (International Ocean Discovery Program). <http://dx.doi.org/10.14379/iodp.proc.353.2016>
4. Flemings, P.B., **Phillips, S.**, Pettigrew, T., and Green, T., 2016. GOM² pressure coring tool with ball valve (PCTB) land test initial report. In Flemings, P.B., DOE Quarterly Research Progress Report October-December 2015, <https://www.netl.doe.gov/file%20library/research/oil-gas/methane%20hydrates/fe0023919-qpr-oct-dec-2015.pdf>
3. Johnson, J.E., and **Phillips, S.C.**, 2014. Reconstructing paleo-SMT positions on the Cascadia margin using magnetic susceptibility. U.S. Department of Energy, Final Scientific Report, <https://www.netl.doe.gov/File%20Library/Research/Oil-Gas/methane%20hydrates/fe0010120-final-report.pdf>
2. Rose, K., Johnson, J.E., **Phillips, S.C.**, Smith, J., Reed, A.; Disenhof, C., and Presley, J., 2012. MITAS-2009 Expedition, U.S. Beaufort Shelf and Slope—Lithostratigraphy Data Report; NETL-TRS-2-2012. U.S. Department of Energy, National Energy Technology Laboratory, 2012. 136 pages, doi:10.2172/1061302
1. Inagaki, F., Hinrichs, K.-U., Kubo, Y., and the **Expedition 337 Scientists**, 2013. Deep coalbed biosphere off Shimokita: microbial processes and hydrocarbon system associated with deeply buried coalbed in the ocean. *Proceedings of the Integrated Ocean Drilling Program*, 337: Tokyo (Integrated Ocean Drilling Program Management International, Inc.). doi:10.2204/iodp.proc.337.2013

CONFERENCE PAPERS

2. Flemings, P.B., Boswell, R., Collett, T.S., Cook, A.E., Divins, D., Frye, M., Guerin, G., Goldberg, D.S., Malinverno, A., Meazell, K., Morrison, J., Pettigrew, T., **Phillips, S.C.**, Santra, M., Sawyer, D.E., Shedd, W., Thomas, C., and You, K., 2017. GOM²: Prospecting, drilling and sampling coarse-grained hydrate reservoirs in the deepwater Gulf of Mexico. *Proceedings of the 9th International Conference on Gas Hydrates*, (June 25-30, 2017) Denver, CO, USA
1. Kempton, H., Conrad, C., Parnow, C., and **Phillips, S.**, 2009. Linking sulfide mineral oxidation and metal release in models of acid rock drainage from mine waste. *8th International Conference on Acid Rock Drainage*, (June 22-28, 2009) Skellefteå, Sweden, 10 pages.

INVITED TALKS

7. **Phillips, S.C.**, Flemings, P.B., Holland, M.E., Schultheiss, P.J., Waite, W.F., Petrou, E.G., Jang, J., and Hammon, H., 2019. Extremely high concentration of methane hydrate in a deepwater silt reservoir in the northern Gulf of Mexico (Green Canyon 955). Talk presented at the 2019 AAPG Workshop: Gas Hydrates – From Potential Geohazard to Carbon Efficient Fuel?, Auckland, NZ, April 17, 2019.
6. **Phillips, S.C.**, 2018. Concentration and origin of a methane hydrate reservoir in the northern Gulf of Mexico from pressure core analysis. University of Texas at Austin Institute for Geophysics Seminar, August 31, 2018.
5. **Phillips, S.C.**, 2018. Multi-scale experimental investigation of flow properties in coarse-grained hydrate reservoirs during production. 2018 DOE-NETL Carbon Storage and Oil and Natural Gas Technologies Review Meeting, August 16, 2018, Pittsburgh, PA.
4. **Phillips, S.C.**, Flemings, P.B., Holland, M.E., Schultheiss, P.J., Waite, W.F., Petrou, E.G., Jang, J., Polito, P.J., O'Connell, J., Dong, T., Meazell, K., and Expedition UT-GOM2-1 Scientists, 2018. Quantitative degassing of gas hydrate-bearing pressure cores from Green Canyon 955. Gulf of Mexico. 2018 Gordon Research Conference on Natural Gas Hydrate Systems, Young Investigator Award Presentation, March 1, 2018, Galveston, TX.

3. **Phillips, S.**, 2016. Influence of the Indian monsoon on sedimentation and productivity in the northern Bay of Bengal over the last glacial-interglacial cycle. University of Texas at Austin Institute for Geophysics Seminar, September 30, 2016.
2. **Phillips, S.**, 2016. Unraveling depositional and diagenetic signals in magnetic susceptibility in ocean drilling records. Oklahoma State University Boone Pickens School of Geology Seminar. April 8, 2016.
1. **Phillips, S.**, 2008. Long-timescale variation in organic and inorganic carbon on the Indian continental margins. Colorado School of Mines Center for Hydrate Research Seminar. March 21, 2008.

CONFERENCE PRESENTATIONS

(*Mentored graduate student; **Mentored undergraduate student; ***Mentored high school student)

45. **Phillips, S.C.**, Johnson, J.E., Giosan, L., Ouimette, A., Gebregiorgis, D., Turner, S., Thirumalai, K., Clemens, S.C., Lee, J., Kim, S., and Khim, B.-K., 2020. Consistency of weathering and productivity records in the Bay of Bengal and western Andaman Sea. Abstract accepted for the AGU Chapman Conference on the Evolution of the Monsoon, Biosphere and Mountain Building in Cenozoic Asia, Washington, DC, January 5-9, 2020.
44. Flemings, P., Boswell, R., **Phillips, S.**, Meazell, P., Santra, M., Fang, Y., You, K., and Thomas, C., 2020. Pressure coring a Gulf of Mexico deepwater turbidite gas hydrate reservoir: Synthesis of UT-GOM2-1 Expedition. Abstract submitted to the 10th International Conference on Gas Hydrates, Singapore, June 21-26 2020.
43. Fang, Y., Flemings, P., Daigle, H., **Phillips, S.**, and Germaine, J., 2020. Insight of in-situ porosity and compressibility of the GC 955 Gulf of Mexico hydrate reservoir. Abstract submitted to the 2nd International Conference on Energy Geotechnics, La Jolla, CA, September 20-23, 2020.
42. Fang, Y., Flemings, P.B., Daigle, H., **Phillips, S.**, Meazell, K., and You, K., 2019. Petrophysical properties of the GC 955 Gulf of Mexico hydrate reservoir inferred from reconstituted sediments: implications for hydrate formation. Abstract submitted to the AGU Fall Meeting 2019, San Francisco, CA.
41. Oti, E., Cook, A., **Phillips, S.**, Holland, M.E., 2019. Using X-ray computed tomography (XCT) to estimate hydrate saturation in sediment cores from UT-GOM2-1 H005, Green Canyon 955. Abstract submitted to the AGU Fall Meeting 2019, San Francisco, CA.
40. **Phillips, S.C.**, 2019. Pressure coring in marine sediments: Insights into gas hydrate systems and future directions. Talk presented at Geological Society of America Meeting, September 25, 2019, Phoenix Arizona, Paper #245-3.
39. Fang, Y., Flemings, P.B., **Phillips, S.**, Daigle, H., O'Connell, J., and Polito, P.J., 2018. Permeability, compression behavior, and lateral stress ratio of hydrate-bearing siltstone from UT-GOM2-1 pressure core (GC 955-northern Gulf of Mexico): Initial results. Poster OS23D-1650 presented at the 2018 Fall Meeting, Washington, D.C., 10-14 Dec.
38. Oti, E., Cook, A., **Phillips, S.**, Holland, M.E., and Flemings, P.B., 2018. Using X-ray computed tomography (CT) to estimate hydrate saturation in sediment cores from Green Canyon 955, Gulf of Mexico. Talk OS14A-02 presented at the 2018 Fall Meeting, Washington, D.C., 10-14 Dec.
37. Johnson, J.E., **Phillips, S.C.**, and Divins, D.L., 2018. Tracking AOM through TOC and elemental S: Implications for methane charge in the Gulf of Mexico marine sediments. Talk OS13A-08 presented at the 2018 Fall Meeting, Washington, D.C., 10-14 Dec.
36. ***Waldstreicher, H.J., Flemings, P.B., **Phillips, S.C.**, and Polito, P.J., 2018. Mapping the methane hydrate phase boundary using a sapphire cell. Poster OS23D-1643 presented at the 2018 Fall Meeting, Washington, D.C., 10-14 Dec.
35. **Phillips, S.C.**, Flemings, P.B., Holland, M.E., Schultheiss, P.J., Petrou, E.G., Waite, W.F., Jang, J., **Hammon, H., and Polito, P.J., 2018. High saturation of methane hydrate in a coarse-grained reservoir in the northern Gulf of Mexico from quantitative depressurization of pressure cores. Poster OS23D-1654 presented at the 2018 Fall Meeting, Washington, D.C., 10-14 Dec.
34. Moore, M.T., **Phillips, S.C.**, Cook, A., Sawyer, D.E., Lary, B.A., Wulsin, G., and Darrah, T.H., 2018. Noble gas and hydrocarbon geochemical composition of fluids associated with gas hydrate formation in cores

- from the Gulf of Mexico Green Canyon, Block GC955. Talk 129-4 presented at the 2018 Geological Society of America Annual Meeting, Indianapolis, IN, November 4-7, 2018.
33. Moore M.T., Cook A.E., **Phillips, S.**, Whyte C.J., Sawyer D., UT-GOM2-01 Scientists, and Darrah T.H. 2018. Noble gas and hydrocarbon composition of gas hydrate reservoirs in Green Canyon, Block GC955, Gulf of Mexico. Goldschmidt Abstracts, Boston, MA, August 12-17, 2018.
 32. **Phillips, S.C.**, Flemings, P.B., Holland, M.E., Schultheiss, P.J., Waite, W.F., Petrou, E.G., Jang, J., Polito, P.J., O'Connell, J., Dong, T., Meazell, K., and Expedition UT-GOM2-1 Scientists, 2018. Quantitative degassing of gas hydrate-bearing pressure cores from Green Canyon 955. Gulf of Mexico. Poster presented at the 2018 Gordon Research Conference and Seminar on Natural Gas Hydrate Systems, Galveston, TX, February 24-March 2, 2018.
 31. Flemings, P., **Phillips, S.**, and the UT-GOM2-1 Expedition Scientists, 2018. Recent results of pressure coring hydrate-bearing sands in the deepwater Gulf of Mexico: Implications for formation and production. Talk presented at the 2018 Gordon Research Conference on Natural Gas Hydrate Systems, Galveston, TX, February 24-March 2, 2018.
 30. ****Hammon, H., Phillips, S.**, Flemings, P., and the UT-GOM2-1 Expedition Scientists, 2018. Drilling-induced disturbance within methane hydrate pressure cores in the northern Gulf of Mexico. Poster presented at the 2018 Gordon Research Conference and Seminar on Natural Gas Hydrate Systems, Galveston, TX, February 24-March 2, 2018.
 29. **Phillips, S.C.**, Holland, M.E., Flemings, P.B., Schultheiss, P.J., Waite, W.F., Petrou, E.G., Jang, J., Polito, P.J., O'Connell, J., Dong, T., Meazell, K., and Expedition UT-GOM2-1 Scientists, 2017. Quantitative degassing of gas hydrate-bearing pressure cores from Green Canyon 955. Gulf of Mexico. Talk OS44A-02 at the AGU Fall Meeting 2017, New Orleans, LA.
 28. Flemings, P.B., **Phillips, S.C.**, and Expedition UT-GOM2-1 Scientists, 2017. UT-GOM2-1: Prospecting, Drilling and Sampling a Coarse-Grained Hydrate Reservoir in Green Canyon 955, the Deepwater Gulf of Mexico. Gulf of Mexico. Talk OS44A-01 at the AGU Fall Meeting 2017, New Orleans, LA.
 27. Moore, M.T., Darrah, T., Cook, A., Sawyer D., **Phillips, S.**, Whyte, C.J., Lary, B.A., and UT-GOM2-1 Scientists, 2017. The genetic source and timing of hydrocarbon formation in gas hydrate reservoirs in Green Canyon, Block GC955. Talk OS44A-03 at the AGU Fall Meeting 2017, New Orleans, LA.
 26. **Phillips, S.C.**, You, K., Flemings, P.B., Meyer, D.W., and *Dong, T., 2017. Dissociation of laboratory-synthesized methane hydrate by slow depressurization. Poster presented at the 9th International Conference on Gas Hydrates, June 25-30, 2017, Denver, CO.
 25. Meyer, D.W., You, K., **Phillips, S.**, Flemings, P.B., DiCarlo, D., and Kneafsey, T., 2017. Methane hydrate formation in coarse-grained, brine-saturated sample through the induction of a propagating gas front. Talk presented at the 9th International Conference on Gas Hydrates, June 25-30, 2017, Denver, CO.
 24. **Phillips, S.C.**, You, K., Flemings, P., Meyer, D., Dong, T., and *Borgfeldt, T., 2016. Dissociation of laboratory-synthesized methane hydrate by slow depressurization. Poster B21G-0498 presented at the AGU Fall Meeting 2016, San Francisco, CA, San Francisco, CA.
 23. Meyer, D.W., You, K., **Phillips, S.**, Flemings, P.B., DiCarlo, D., and Kneafsey, T., 2016. Methane hydrate formation in coarse-grained, brine-saturated sample through the induction of a propagating gas front. Poster OS51B-2040 presented at the AGU Fall Meeting 2016
 22. **Phillips, S.C.**, Johnson, J.E., Clyde, W.C., Giosan, L., Hong, W.-L., and Torres, M.E., 2016. Effects of early diagenesis on magnetic susceptibility in fine-grained, methane-bearing sediments. Talk presented at the Geological Society of America Annual Meeting 2016, Denver, CO, Sept. 25-28, 2016.
 21. Lundgren, D., Johnson, J., Varner, R., and **Phillips, S.**, 2016. Assessing bottom sediment methane concentrations and the extent of anaerobic oxidation of methane in the Great Bay Estuary, New Hampshire. Poster presented at 2016 Gordon Research Conference and Gordon Research Seminar on Natural Gas Hydrates. February 27-March 4, 2016, Galveston, TX.
 20. Johnson, J., Panieri, G., **Phillips, S.**, Lundgren, D., Sauer, S., Schneider, A., Knies, J., Plaza-Faverola, A., and Mienert, J., 2016. Losing magnetite and gaining sulfur on the Arctic Vestnesa Ridge, offshore western

- Svalbard. Poster presented at 2016 Gordon Research Conference on Natural Gas Hydrates. February 28-March 4, 2016, Galveston, TX.
19. Meyer, D.W., You, K., **Phillips, S.**, Flemings, P.B., DiCarlo, D., and Kneafsey, T., 2016. Methane hydrate formation in a saturated, coarse-grained sample through the induction of a propagating gas front. Poster presented at 2016 Gordon Research Conference and Gordon Research Seminar on Natural Gas Hydrates. February 27-March 4, 2016, Galveston, TX.
 18. **Phillips, S.C.**, *Borgfeldt, T., You, K., Meyer, D., and Flemings, P.B., 2016. Dissociation of laboratory-synthesized methane hydrate by depressurization. Poster presented at 2016 Gordon Research Conference and Gordon Research Seminar on Natural Gas Hydrates. February 27-March 4, 2016, Galveston, TX.
 17. *Borgfeldt, T.M., **Phillips, S.**, You, K., Meyer, D., and Flemings, P., 2015. Experimental dissociation of methane hydrates by depressurization. Poster B13B-0605 presented at the AGU Fall Meeting 2015, San Francisco, CA.
 16. Johnson, J., **Phillips, S.**, Panieri, G., Knies, J., Sauer, S., and Mienert, J., 2014. Tracking paleo-SMT positions using a magnetic susceptibility proxy approach from sediments on the Arctic Vestnesa Ridge, offshore western Svalbard. 2014 European Geosciences Union General Assembly 2014, Vienna, Austria, April 2014.
 15. **Phillips, S.**, Johnson, J.E., Clyde, W.C., Setera, J.B., Hong, W.-L., and Torres, M.E., 2014. Unraveling depositional and diagenetic signals in magnetic susceptibility in gas hydrate-bearing sediments along the Cascadia margin. Gordon Research Conference and Gordon Research Seminar on Natural Gas Hydrate Systems. March 23-28, 2014, Galveston, TX.
 14. Johnson, J., **Phillips, S.**, Panieri, G., Knies, J., Sauer, S., and Mienert, J., 2014. Tracking paleo-SMT positions using a magnetic susceptibility proxy approach from sediments on the Arctic Vestnesa Ridge, offshore western Svalbard. Gordon Research Conference on Natural Gas Hydrate Systems. March 23-28, 2014, Galveston, TX.
 13. Riedinger, N, Smirnoff, M., Gilhooly, W.P., **Phillips, S.C.**, Lyons, T.W., and Expedition 337 Scientists. 2013. Sulfur and iron cycling in deep-subsurface, coal bed-containing sediments off Shimokita (Japan). Poster presented at the AGU Fall Meeting 2013, San Francisco, CA.
 12. Murayama, M., Reischenbacher, D., Limmer, D., **Phillips, S.**, Susilawati, R., Park, Y.-S., Kubo, Y., Hinrichs, K.U., and Inagaki, F., and Expedition 337 Scientists, 2013. Lithology and paleoenvironments at drilled Site C0020 off the Shimokita Peninsula, IODP Exp. 337. Japan Geoscience Union Meeting, Makuhari Messe, Japan (9-24, May).
 11. Sinclair, S.N., Johnson, J.E., Prado, F.M., Solway, D.R., **Phillips, S.C.**, and Bryce, J.G., 2013. Reconstructing the history of natural and anthropogenic sediment inputs behind the former head-of-tide dam in the Bellamy River, Dover, NH. Geological Society of America Northeastern Section Meeting March 2013, Bretton Woods, NH
 10. Johnson, J.E., **Phillips, S.C.**, Clyde, W.C., Giosan, L., and Rose, K., 2012. Integrating primary sedimentology, authigenic phases, and pore water chemistry to reconstruct the migration history of the sulfate-methane transition in gas hydrate bearing regions. Gordon Research Conference on Natural Gas Hydrate Systems, March 18-23, Ventura, CA.
 9. **Phillips, S.C.**, Johnson, J.E., Giosan, L., Rose, K., and Clyde, W.C., 2012. Tracking changes in the SMT with magnetic susceptibility in gas hydrate bearing stratigraphy. Abstract 10323 presented at Ocean Sciences Meeting (February 20-24, 2012) Salt Lake City, UT.
 8. Johnson, J.E., **Phillips, S.C.**, Miranda, E., Giosan, L., and Rose, K., 2009. Long-term variability of carbon and nitrogen in the Bay of Bengal and Arabian Sea: Results from NGHP Expedition 1. Eos Trans. AGU, 90(52), Fall Meet. Suppl., Abstract OS44A-01. Oral presentation
 7. Julian, M., Johnson, J.E., and **Phillips, S.C.**, 2009. Opportunistic stratigraphy: Glacial lake sediments revealed during the May 15-16, 2006 Suncook River avulsion in Epsom, New Hampshire, *Geological Society of America Abstracts with Programs*, Vol. 41, No. 3, p. 91, Northeastern Section 44th Annual Meeting (March 22-24, 2009), Portland, ME.

6. **Phillips S.**, Varner R.K., Frolking S., Munger, J.W., Bubier, J.L., Wofsy, S.C. and Crill, P.M., 2008. Interannual, seasonal, and diel variation of soil respiration along a wetland to upland slope, 19th Annual Harvard Forest Ecology Symposium (March 18, 2008) Petersham, MA.
5. ****Goodrich, J.P., Phillips, S.**, Bubier, J.L., Crill, P.M., and Varner, R.K., 2007. The effects of high ozone episodes on photosynthetic activity of temperate wetland plants. *Eos Trans. AGU*, 88(52), Fall Meet. Suppl., Abstract B33E-1677.
4. **Phillips S.**, Varner R.K., Frolking S., Munger, J.W., Wofsy, S.C. and Crill, P.M., 2007. Autochamber soil CO₂ efflux measurements at Harvard Forest, 18th Annual Harvard Forest Ecology Symposium (March 27, 2007) Petersham, MA.
3. **Phillips, S.**, Varner, R.K., Frolking, S., Munger, J.W., Crill, P.M., and Wofsy S.C., 2007. Comparison of soil CO₂ efflux measurements to eddy covariance tower ecosystem respiration at Harvard Forest, Geological Society of America Abstracts with Programs, Vol. 39, No.1, p. 46, Northeastern Section 42nd Annual Meeting (March 12-14, 2007) Durham, NH
2. Varner, R.K., Crill, P.M., Bubier, J., Frolking, S. and **Phillips, S.**, 2007. The effect of the winter/spring transition on CO₂ exchange at a temperate fen, Geological Society of America Abstracts with Programs, Vol. 39, No.1, p. 46, Northeastern Section 42nd Annual Meeting (March 12-14, 2007) Durham, NH
1. Varner, R.K., Crill, P.M., Bubier, J., **Phillips, S.**, Frolking, S., 2007. High frequency measurement of soil CO₂ efflux at Harvard Forest, U.S. North American Carbon Program Investigators Meeting, January 22-26. 2007, Colorado Springs, CO.

OTHER DEPARTMENTAL TALKS

5. **Phillips, S.** and Expedition UT-GOM2-1 Scientists, 2017. Drilling and coring methane hydrates in coarse-grained sediments from the Gulf of Mexico. UTIG Brown Bag Seminar, September 6, 2017.
4. **Phillips, S.**, 2016. Evaluating cyclic magnetic susceptibility patterns in sediments of the northern Bay of Bengal. University of Minnesota Institute for Rock Magnetism Brown Bag Seminar, October 17, 2016.
3. **Phillips, S.**, 2016. Unraveling depositional and diagenetic signals in magnetic susceptibility in ocean drilling records: Examples from the Indian, Cascadia, and Japanese margins. University of Texas at Austin Institute for Geophysics Brown Bag Seminar, February 17, 2016.
2. **Phillips, S.**, 2014. Scientific ocean drilling offshore Shimokita Peninsula, Japan: A forearc basin, subseafloor coal beds, and 'zombie microbes': Results of Integrated Ocean Drilling Program Expedition 337. University of New Hampshire Department of Earth Sciences Brown Bag Seminar, September 11, 2014.
1. **Phillips, S.**, 2011. Gas hydrate-bearing regions of the Indian Margin, Bay of Bengal: Sediment sources and early diagenesis. University of New Hampshire Department of Earth Sciences Brown Bag Seminar, September 1, 2011.