SARAH M. PRINCIPATO

Address:

Department of Environmental Studies
Campus Box 2455
Gettysburg College
300 N. Washington St.
Gettysburg, PA 17325 USA
Telephone: 717-337-6079
Email: sprincip@gettysburg.edu

Education:

Ph.D. Geology, University of Colorado, Boulder, CO (2003)
Dissertation: "The Late Quaternary History of Eastern Vestfirdir, NW Iceland"
Advisor: John T. Andrews

M.S. Geology, University of Wisconsin, Madison, WI (1999)
Thesis: "The Quaternary Geology of Northern Sheboygan County, Wisconsin"
Advisor: David M. Mickelson

A.B. *magna cum laude* with high honor in Geology, Mount Holyoke College, South Hadley, MA (1997)
Thesis: "Application of Calcite-Dolomite Thermometry: Southern Grenville Province, Bancroft, Ontario"
Advisor: Stevie Dunn

Positions:

Gettysburg College
Professor, Department of Environmental Studies, 2016 – present
Associate Professor, Department of Environmental Studies, 2009 - 2016
Acting Chair of Environmental Studies, Spring 2015
Chair of Environmental Studies, 2009 – 2012
Assistant Professor, Department of Environmental Studies, 2003 - 2009

University of Colorado, Boulder
Research Assistant, Institute of Arctic and Alpine Research, 2000-2003
Teaching Assistant, Department of Geological Sciences, 1999-2001
Scientific Crew Member, R/V *Marion Dufresne*, 1999

University of Wisconsin-Madison
Teaching Assistant, Department of Geology and Geophysics, 1997-1999
Research Assistant, Department of Geology and Geophysics, 1997-1998

Honors:

Geological Society of America, Fellow, elected May 2023

Outstanding Faculty Mentor for Undergraduate Research & Creative Activity in the Natural Sciences, Gettysburg College, 2019
Dr. Robert E. Dutton, Class of 1946, Memorial Mentorship Award, Gettysburg College, 2016
Luther W. and Bernice L. Thompson Distinguished Teaching Award, Gettysburg College, 2009
Faculty Appreciation Award, Student-Athlete Advisory Committee, Gettysburg College, 2009
Waldrop Award, Department of Geological Sciences, University of Colorado, 2002
Women's Forum of Colorado Foundation, Inc., Scholarship Grant, 2001
Association for Women Geoscientists Graduate Student Award, 2001
University Fellowship from the Graduate School, University of Colorado, Boulder, 1999
Barry M. Goldwater Scholarship, 1996-1997

Grants Received:

Gettysburg College, Johnson Center for Creative Teaching and Learning Grant; NSF Fundamentals in Data Management for Qualitative and Quantitative Arctic Research (workshop at NCEAS, UCSB), 2025 ($1500)

Franklin Research Grant, American Philosophical Society, Analysis of cirques on the Faroe Islands: implications for paleoclimate, 2019 ($6000)

Gettysburg College, Christian A. Johnson Endeavor Foundation, Course Development Grant in collaboration with Professor Salma Monani, Science and Stories of Climate Change in Scandinavia, 2015 ($3500)

Gettysburg College, Research and Professional Development Grants
- Analysis of cirques on the Faroe Islands: implications for paleoclimate, 2018 ($7390)
- Reconstructing ice flow paths on Grímsey and Northern Iceland, 2016 ($6453)
- Climate change interpreted from glaciers and landforms on eastern Iceland, 2014 ($6940)
- Student-Faculty Research Presentations at the International Arctic Workshop, 2012b ($1135)
- Using GIS and landform analysis to reconstruct paleoclimate in NW Iceland, 2012a ($5000)
- Holocene Climate Change Interpreted from a Peat Bog in Maine, 2007 ($4950)
- Mussel Beds as Sea Level Indicators: A Pilot Study for Coastal Maine, 2006b ($2500)
- Introduction to Pollen Analysis: Short Course at University College London, 2006a ($2650)
- Landslides and Retreating Glaciers, NW Iceland, 2004 ($7890)
- Interaction between two ice caps, NW Iceland: A reconnaissance study, 2003 ($8200)

Gettysburg College, Mellon Grants for Recently Tenured Faculty
What was the source of the ice? An Iceland Provenance Study, 2009 ($7500)

Gettysburg College, Globalizing Faculty-Student Research, Course Development Grant, 2009 ($2850)

Geological Society of America, Graduate Student Research Grant, 2000 ($2500)

Sigma Xi Grants in Aid of Research, 2000 ($800)

Bill Hiss Travel Grants, University of Colorado, 2000-2003 (amount varies)

UW-Madison, Department of Geology and Geophysics Research Grant, Quaternary Geology of N. Sheboygan County, 1998 ($1000)

Professional Activities:

Panel and Proposal Reviewer:

National Science Foundation Panels and mail-in proposal reviews
Natural Environment Research Council, UK
RANNIS, Icelandic Research Fund

Journal Reviewer

Arctic, Antarctic, and Alpine Research
Boreas
Canadian Journal of Earth Sciences
Catena
Earth and Planetary Science Letters
Earth Science Reviews
Earth Surface Processes and Landforms
Geomorphology
International Journal of Earth Sciences
Journal of Quaternary Science
Paleogeography, Paleoclimatology, Paleoecology
Quaternary Science Reviews
Shore and Beach

Other Professional Activities

Inclusive STEM Teaching Project Certification, 2023

American Geophysical Union – Global Environmental Change Awards Committee, 2022

Session Chair, "T16. Glacial Geology and Proxy Records in Northeastern North America and Beyond." Northeast Geological Society of America Meeting in Lancaster, PA (March 2022)

External Reviewer for Environmental Studies Program at Shepherd University, 2022

Invited Panelist, Building Online Geoscience Textbooks, Earth Educators' Rendezvous, July 2021

Unlearning Racism in Geoscience (URGE) – member of Mount Holyoke College pod, Spring 2021

Association of American Colleges and Universities, Institute on Civic Prompts in the Major: Designs in Social Responsibility and the Public Good, George Washington University, March 2020

Pennsylvania Department of Environmental Protection, Potomac Regional Water Resources Committee Member, Appointed by Governor Wolf, 2020- present

External Reviewer for Environmental Studies Program at Goucher College, 2019

Chair and Vice-Chair for the NE Geological Society of America (elected positions), 2019 - 2023

Session Chair, T191. "Reconstructing Arctic Glaciers and Ice Sheets: Chronology, Geomorphology, and Climate Records." Geological Society of America Annual Meeting, Baltimore, MD (Nov 2015)

Local Organizing Committee for the Northeast Geological Society of America Meeting in Lancaster, PA (March 2014)

Session Chair, "Glaciers, Sediments, and Landforms of Northeast North America and Beyond." Northeast Geological Society of America Meeting in Lancaster, PA (March 2014)

External Reviewer for tenure and pre-tenure cases for faculty at other institutions

Masters Thesis Committee Member for Amanda Houts, University of New Hampshire

Research with undergraduate students:

Honors Thesis Students, Gettysburg College

Danielle Kleinberg, 2022-2023, An Investigation of water quality in Rock Creek: contamination from treated wastewater, agriculture, and urban runoff and the effectiveness of riparian buffers in limiting contamination

Tessa McDonald, 2022 – 2023, Evaluation of the Schmidt hammer relative age dating technique in Iceland and the mid-Atlantic USA

Halley Mastro, 2020, Morphometric Analysis of Ice Scour Lakes in Northern Iceland: A Proxy for Ice Sheet Dynamics

Ilana Sobel, 2018 – 2020, Patterns of glacial erosion from ice scour lakes in Iceland

Keyleigh Wallick, 2018 – 2020, Morphometric Analysis and Paleo Equilibrium-Line Altitude Reconstruction of Cirques on the Faroe Islands

Brittany Bondi, 2018-2019, How Does Environmental Film Impact Audience Behavior and Emotion? (co-advised with Professor Salma Monani)

Marion McKenzie, 2017 – 2019, Using streamlined landforms to reconstruct and compare paleo-ice flow paths in Bardardalur, north Iceland and northwestern Pennsylvania

Rachael Grube, 2015 – 2016, Identification and analysis of paleo-cirque glaciers on Tröllaskagi, Iceland

Heather Ipsen, 2014 – 2015, A morphometric analysis of cirques on east Iceland using GIS

Dori Gorczyca, 2014 – 2015, co-advised with Professor Salma Monani, Communicating climate change at Glacier National Park

Alyson Hampsch, 2012 – 2014, Testing evidence for fast ice flow in North Iceland

Alexis Moyer, 2012 – 2013, Reconstructing ice flow in Northern Iceland using streamlined landforms

Jessica Lee, 2012 – 2013, Using GIS to reconstruct paleo equilibrium-line altitudes from cirques in Northwest Iceland

Nikita LaCruz, 2012 – 2013, Chemistry/ES Senior Project co-advised with Professor Joe Gryzbowski, Assessing the impact of industrialization on lead levels in soils on the Gettysburg College Campus: A chemical and spatial analysis

Andrew Reed, 2009 – 2010, Holocene record of climate change from peat deposits in Maine, Goldwater Honorable Mention

Julie Markus, 2008 – 2009, Sedimentology and humification index of peat deposits in New York and Maine, Goldwater Scholar

Tess Barton, 2005 –2006, Holocene paleoclimate interpreted from peat deposits in northwest Iceland

Kristin Igusky, 2005 – 2006, Characteristics of diamicton from Vestfirdir and the mainland of Iceland: implications for provenance

Jeremiah Johnson, 2004 – 2005, Evaluating the spatial distribution of ice scour lakes in NW Iceland at the Last Glacial Maximum

Recent Independent Study Mentoring (non-thesis), Gettysburg College

Daniel Soloway, 2023, Faculty sponsor of internship with Suffolk County Health Department, Beach Monitoring Program

Kelly O'Connor, 2022, Faculty sponsor of internship with Bertone Piccini LLP

Hayden E. Dubniczki , 2021, Faculty sponsor of internship with Seaside

Emily Duggan, 2015, Current Environmental Events in the Global Media

Athena Mandros, 2014, Using literature & history to understand mountain top removal

Greg Baron, 2010, Holocene climate change interpreted from Penobscot Bay, Maine

Field and Lab Research Assistants, Gettysburg College
Danielle Kleinberg (2022-2023) Tessa McDonald (2020 – 2023); Halley Mastro (2020-2021); Ilana Sobel (2018 - 2020); Keyleigh Wallick (2018 – 2020); Abigail Rec (2018); Brittany Bondi (2017); Marion McKenzie (2017 - 2019); Lizzy Cooper, (2015 – 2016); Marjorie Howard (2014); Betsy Emmons (2013 – 2014); Christina Jasion, (2012); Alexis Moyer, (2012); Cole Rossiter, (2012); Elizabeth Rouillard, (2012); Rebecca Taormina, (2012); Brian Wooldredge, (2012); Mitchell Jones, (2010); Brittany Jones (2009 – 2010); Gregory Baron, (2009 – 2010); Tom Merce, (2007); Matt Shank (2006); Ali Vissichelli, (2006); Alexis Melusky (2003 – 2004); Meghan Flynn, (2003 – 2004)

Senior Thesis Students, University of Colorado:
Ryan Thomas, Late Quaternary history of Hunafloi, NW Iceland (2002)
Matt Thomas, Quaternary history of Isafjardardjup, NW Iceland (2001)

Senior Thesis Student, University of Wisconsin:
Ben Laabs, Lake Michigan Shoreline Bluffs (1998-1999)

Field Research Assistants, University of Iceland
Gudrun Eva Johannsdottir, (2000 – 2002); Hrafnhildur Hannesdottir, (2000 – 2001)

Publications: *(* denotes student co-author)*

Mastro, H.M.*, **Principato, S.M.,** Sobel, I.B.*, Benediktsson, Í. Ö. & Aradóttir, N., 2023, Morphometric Analysis of Ice Scour Lakes in Iceland: A Proxy for Ice Sheet Dynamics. Earth Surface Processes and Landforms 48, 3237-3250. https://doi.org/10.1002/esp.5693

McKenzie, M. A.*, Simkins, L.M., **Principato, S.M**, Garcia, S. M, 2022, Streamlined subglacial bedform sensitivity to bed characteristics across the deglaciated Northern Hemisphere. *Earth Surface Processes and Landforms*. doi/10.1002/esp.5382

Wallick, K.N.* & **Principato, S.M**., 2020, Quantitative analyses of cirques on the Faroe Islands: Evidence for time transgressive glacier occupation, *Boreas* vol. 49; 828-840. doi.org/10.1111/bor.12458

Bondi, B.A.,* Monani, S.B., **Principato, S.M**., Barlett, C, 2020, Examining the impact of climate change film as an educational tool, *Applied Environmental Education & Communication;* doi.org/10.1080/1533015X.2020.1780997

Ipsen, H.A.*, **Principato, S.M**., Grube, R.E.*, and Lee, J. F.* 2018. Spatial analysis of cirques from three regions in Iceland: Implications for cirque formation and palaeoclimate; *Boreas.* Vol. 47, 565-576. DOI: 10.1111/bor.12295

Monani, S., **Principato, S.,** Gorczyca, D.*, and Cooper, E.* 2018. Loving Glacier National Park *Online*: Climate Change Communication and Virtual Place Attachment *In* The Handbook of Climate Change Communication, editors Walter Leal Filho et al. Netherlands: Springer Press.

Gorczyca, Dori*, Salma Monani, and **Sarah Principato**. 2018. The Melting 'Crown of the Continent': Visual History of Glacier National Park. Environment & Society Portal, *Arcadia* (Summer 2018), no. 20. Rachel Carson Center for Environment and Society. http://www.environmentandsociety.org/node/8315.

Spooner, I., **Principato, S.,** Hill, N., White, H.*, Dunnington, D., Neily, T., and Stolze, S., 2017 Late Holocene records of changing moisture regime from wetlands in southwestern Nova Scotia, Canada: Implications for wetland conservation and restoration. Northeastern Naturalist, vol. 24(3), 331 – 348. https://doi.org/10.1656/045.024.0310

Principato, S. M., Moyer, A. N.*, Hampsch, A. G.*, and Ipsen, H. A.*, 2016, Using GIS and streamlined landforms to interpret palaeo-ice flow in northern Iceland. *Boreas,* vol 45, p. 470–482. doi: 10.1111/bor.12164

Principato, S.M., and Lee, J. F.*, 2014, GIS analysis of cirques on Vestfirðir, northwest Iceland: implications for palaeoclimate. *Boreas*, vol. 43, p. 807–817. doi: 10.1111/bor.12075

Carlson, A.E., **Principato, S.M.**, Chapel, D.M., and Mickelson, D.M, 2011, Quaternary Geology of Sheboygan County, Wisconsin: *Wisconsin Geological and Natural History Survey Bulletin 106,* 32p.

Quillmann, U, Andrews, J. T., Jennings, A.E., Bendle, J., Jónsdóttir, H., Kristjánsdóttir, G.B., Lloyd, J., Ólafsdóttir, S., **Principato, S.,** 2009, Radiocarbon Date List XI: Radiocarbon Dates from Marine Sediment Cores of the Iceland, Greenland, and Northeast Canadian Arctic Shelves and Nares Strait. *Occasional Paper - Colorado University, Institute of Arctic and Alpine Research*, v. 59, 69 pp.

Principato, S.M., and Johnson, J.*, 2009, Using a GIS to quantify patterns of glacial erosion on northwest Iceland: Implications for independent ice sheets, *Arctic, Antarctic, and Alpine Research,* vol. 41, p. 128-137.

Principato, S.M., 2008, Holocene glacier fluctuations and sea level changes on eastern

Vestfirdir, Iceland, *Boreas,* vol. 37, p. 132–145.

J.T. Andrews, J. Hardardóttir, J. Stoner, and **S. M. Principato,** 2008, Holocene sediment magnetic properties along a transect from Ísafjardardjúp to Djúpáll, Northwest Iceland, *Arctic, Antarctic, and Alpine Research,* vol. 40, p. 1- 15.

Principato, S.M., Geirsdottir, A., Johannsdottir, G., and Andrews, J.T., 2006, Late Quaternary glacial and deglacial history of eastern Vestfirdir, Iceland, using cosmogenic isotope (36Cl) exposure ages and marine cores, *Journal of Quaternary Science,* vol. 21, no. 3, p. 271-285.

Principato, S.M., Jennings, A.E., Kristjansdottir, G.B., and Andrews, J.T., 2005, A comparison of diamicton units from the SW and N Iceland Shelf: Implications for the glacial history of Iceland, *Journal of Sedimentary Research*. vol. 75, no. 6., p. 968-983.

Carlson, A.E., Mickelson, D.M., **Principato, S.M**., and Chapel, D.M., 2005, The genesis of the northern Kettle Moraine, Wisconsin: *Geomorphology*, vol. 67, p. 365-374.

Dunhill. G., Andrews, J.T., Kristjansdottir, G.B., Castañeda, I.S., Hagen, S., James, E., Vorren, T., Briner, J.P., Cooper, T.A., Hald, M., Jennings, A.E., **Principato, S.**, Weiner, N., Barber, D.C., Hall, F.R., Koc, N., Smith, L.M., and Williams, K., 2004, Radiocarbon date List X; Baffin Bay, Baffin Island, Iceland, Labrador Sea, and the northern North Atlantic, Occasional Paper - Colorado University, Institute of Arctic and Alpine Research, v. 56, 77pp.

Principato, S.M., 2004, X-Ray radiographs of sediment cores: a guide to analyzing diamicton. *In* Francus P. (ed). *Image analysis, sediments and paleoenvironments.* Kluwer Academic Publishers Dordrecht, The Netherlands, p. 165-185.

Andrews, J.T., and **Principato, S.M**., 2002, Grain-size characteristics and provenance of ice-proximal glacial marine sediments (or why do we do grain-size analyses anyway?). *In* Dowdeswell, J.A. and O'Cofaigh, C. (eds). *Glacier influenced sedimentation at high latitude continental margins, Geological Society of London Special Publication 203*, p. 305-324.

Andrews, J.T., Geirsdottir, A., Hardardottir, J., **Principato, S.M**., Kristjansdottir, G.B, Helgadottir, G., Sveinsbjornsdottir, A., Gronvold, K, and Drexler, J., 2002, Distribution, age, and geochemistry of the Saksunarvatn (10.18± cal ka) ash in marine, lake, and terrestrial sediments, NW Iceland, *Journal of Quaternary Science,* vol. 17, no. 8, p. 731-745.

Invited Seminars:

Reconstructing glaciers from cirques to Skessugarður, Iceland, Smith College, Five College Geology Lecture Series (2025)

Reconstructing glaciers from cirques to Skessugarður, Iceland, Dickinson College (2024)

Understanding glacial landforms using GIS: Case studies from Iceland, Temple Univ., (2021)

GIS and Glacial Geology: Cirques, drumlins and ice scour lakes in Iceland, Franklin and Marshall College (2019)

Using GIS to understand glacial history: Case studies from Northwest Iceland, University of Delaware (2014)

One year in with Obama: Is real change still on the agenda for America? Democracy for America Panel (2010)

Gettysburg 350: International day of climate action, Gettysburg Seminary (2009)

Lessons for a changing climate, Gettysburg College, Fall Honors Day Address (2009)

How icy was Iceland: Climate change since the Last Glacial Maximum, Frederick Community College (2007)

Glaciers in Iceland: the glacial history of Vestfirdir, NW Iceland, Amherst College, 5-College Iceland Symposium (2006)

The Science of Tsunami, Gettysburg College (2005)

How icy was Iceland? Climate change since the Last Glacial Maximum, Dickinson College (2004)

Select Abstracts and Conference Presentations: *(* denotes student co-author)*

Licciardi, J., Benediktsson, Í., Brynjólfsson, S., **Principato, S.M.,** Aradóttir, N., & Esther R. Guðmundsdóttir. 2025. Cosmogenic 36Cl dating of ice sheet recession in northeastern Iceland combined with constraints from tephrochronology. 6th International PalaeoArc conference, Tromsø, Norway, Program & Abstracts.

Benediktsson, Í., Licciardi, J., Brynjólfsson, S., **Principato, S.M**., Aradóttir, N., Guðmundsdóttir, E.R., & Farnsworth, W., 2024. Preliminary results of the Early Holocene deglaciation of eastern Iceland from cosmogenic 36Cl exposure ages and tephrochronology. International Glaciological Society - Nordic Branch Meeting Program and Abstracts.

McDonald, T.M.* **Principato, S.M.,** Kleinberg, D.C,, Licciardi, J., Benediktsson, Í. Ö., Aradóttir, N., and Brynjólfsson, S. 2024. Testing the Schmidt Hammer dating technique on glacial landforms in Iceland. Arctic Workshop Program and Abstracts.

Benediktsson, Í. Ö., Licciardi, J.L., Brynjólfsson, S., **Principato, S. M**., Guðmundsdóttir, E.R., and Farnsworth, W. 2024. Early Holocene deglaciation of eastern Iceland constrained by cosmogenic 36Cl exposure ages and tephrochronology. 36th Nordic Geological Winter meeting

Benediktsson, Í. Ö., Jónsdóttir, S.K., Licciardi, J.L., Brynjólfsson, S., **Principato, S. M**., Nína Aradóttir. 2024. The Skessugarður bouldery end moraine, east Iceland: preliminary results on clast shape and moraine formation. 36th Nordic Geological Winter meeting

Licciardi, J.M., Houts, A.N., Benediktsson, I.O., **Principato, S. M,** Brynjólfsson, S., and Aradóttir, N. 2023. Cosmogenic Isotope Chronologies of Glacier Thinning and Recession Along the Northern Sector of the Iceland Ice Sheet During the Last Deglaciation. AGU Program & Abstracts

Principato, S. M, and Monani, S.B. 2023. Indigenous perspectives in the ES classroom: from climate change to river management. Geological Society of America annual meeting, Pittsburgh, PA. Abstracts with Programs, Vol. 55, No. 6, doi: 10.1130/abs/2023AM-391024

McDonald, Tessa*, **Principato, S.M**., Kleinberg, D.*, Licciardi, J., Benediktsson, Í., Arardóttir, N. and Brynjólfsson, S., 2023. Application of the Schmidt Hammer relative age dating technique in Iceland. NE-SE Geological Society of America meeting in Reston, VA. Abstracts with Programs. Vol. 55, No. 2 doi: 10.1130/abs/2023SE-385337

Kleinberg, D.*, McDonald, T.*, and **Principato, S. M.** 2023. An investigation of water quality in Rock Creek, Adams County, PA: Impact of treated wastewater, agriculture, urbanization, and riparian buffers. NE-SE Geological Society of America meeting in Reston, VA. Abstracts with Programs. Vol. 55, No. 2. doi: 10.1130/abs/2023SE-384918

Mastro, H* and **Principato, S. M.** 2022. Morphometric analysis of ice scour lakes in Northern Iceland: A proxy for ice sheet dynamics. NE Geological Society of America meeting in Lancaster, PA, vol. 54, no. 3.

Simkins, L. McKenzie, M.*, **Principato, S.,** Slawson, J., and Wang, S. 2022. Subglacial bedform sensitivity to variable topography and geology across the deglaciated Northern Hemisphere, The 35th Nordic Geological Winter Meeting, Iceland.

Arnardóttir, S.*, Benediktsson, I.O., Ingólfsson, O. **Principato, S.,** and McKenzie, M.*, 2022. Streamlined subglacial bedforms in Bárðardalur, north Iceland: a signature of a palaeo-ice stream within the Iceland Ice Sheet, The 35th Nordic Geological Winter Meeting, Iceland.

McKenzie, M.A.*, Simkins, L.M., **Principato, S.** 2021. Streamlined bedform sensitivity to bed characteristics from deglaciated landscapes. West Antarctic Ice Sheet Workshop, Sterling, VA.

Principato, S.M., Monani, S., Bondi, B,* Gorczyca, D.* and Barlett, C. 2019. Climate Change Communication: Measuring film and website impact. Geological Society of America Meeting in Phoenix, AZ

Bondi, B.*, Monani, S., **Principato, S.,** and Barlett, C. 2019. The Personal Element: How Film Affects Audience Climate Change Belief, Concern, and Behavior. American Associate of Geographers Annual Meeting in Washington, D.C.

McKenzie, M.A.*, **Principato, S.M**., Benediktsson, Í.Ö., 2019. Using streamlined landforms to reconstruct and compare paleo-ice flow paths in North Iceland and Northwest Pennsylvania, NE Geological Society of America meeting in Portland, Maine.

Sobel, I.,* Rec, A.*, and **Principato, S.M**., 2019. Comparison of periglacial block fields and talus slopes in south-central Pennsylvania and northern Maryland, NE Geological Society of America meeting in Portland, Maine.

Bondi, B*. and **Principato, S.** 2018. A quantitative analysis of cirques on Flateyjarskagi, North Iceland. 48th International Arctic Workshop Program and Abstracts, Boulder, CO.

Ebert, K., Hamré, M.*, Hovemyr, M.*, Häljestig, S. *, and **Principato, S.** 2018. Lake battle- the preparation of compatible lake datasets in GIS to use lake density as a possible proxy for ice sheet erosional impact on the Canadian and Fennoscandian shields. 48th International Arctic Workshop Program and Abstracts, Boulder, CO.

McKenzie, M.A.*, **Principato, S.M**., Benediktsson, Í.Ö., 2017. Geomorphic evidence for a paleo-ice stream in Barðardalur, North Iceland. Geological Society of America meeting in Seattle, WA, Abstracts with Programs, vol. 49.

Ipsen, H.A.*, **Principato, S.M**., Grube, R.E.*, and Lee, J. F.* 2017. Geographic variation of cirques on Iceland: factors influencing cirque morphology. 47th International Arctic Workshop Program and Abstracts, Buffalo, NY.

Houts, A.N.*, Licciardi, J.M., **Principato, S.M.**, Zimmerman, S.H., and Finkel, R.C., 2017. New constraints on the timing and pattern of deglaciation in the Húnaflói Bay region of northwest Iceland using cosmogenic 36Cl dating and geomorphic mapping. 47th International Arctic Workshop Program and Abstracts, Buffalo, NY.

Gorcyzca, D.*, **Principato, S.,** and Monani, S. 2016. Climate Change Communication Using Virtual Place Attachment at Glacier National Park, Montana, USA. Geological Society of America meeting in Denver, CO, Abstracts with Programs, vol. 48, Sept. 25 – 28, 2016.

Ebert, K., Hamré, Moa, and **Principato, S.M.,** 2016. Lake Density As A Measure Of Glacial Erosional Impact On Lowland Bedrock Terrain (Or Not). 46th International Arctic Workshop Program and Abstracts, Institute of Arctic and Alpine Research (INSTAAR), University of Colorado at Boulder.

Principato, S. M., Moyer, A.N.*, Hampsch, A. G.* and Ipsen, H.A.*, 2016. Geomorphic evidence for paleo-ice stream activity in northern Iceland. NE Geological Society of America meeting in Albany, NY, March 2016.

Grube, R.E.*, Ipsen, H.A.*, and **Principato, S.M**., 2016. Comparison of cirques in three regions of Iceland using GIS. NE Geological Society of America meeting in Albany, NY, March 2016.

Houts, A.N.*, Licciardi, J.M., **Principato, S.M.**, Zimmerman, S.H., and Finkel, R.C., 2016. Reconstructing the glacial history of the Húnaflói Bay region in northwest Iceland using cosmogenic ^{36}Cl surface exposure dating. NE Geological Society of America meeting in Albany, NY, March 2016.

Grube, R.E.* and **Principato, S. M.,** 2015. A quantitative analysis of cirques on Trollaskagi, Northern Iceland. Geological Society of America meeting in Baltimore, MD, Abstracts with Programs, vol. 47., November 1 – 4, 2015.

Ipsen, H.A. * and **Principato, S. M.,** 2015. A Morphometric analysis of cirques on East Iceland using GIS. Geological Society of America meeting in Baltimore, MD, Abstracts with Programs, vol. 47., November 1 – 4, 2015.

Principato, S. M., Moyer, A.N.*, and Hampsch, A. G.*, 2014. Geomorphic analysis of streamlined landforms in northern Iceland: Evidence for paleo-ice streams. Geological Society of America meeting in Vancouver, British Columbia, Abstracts with Programs, vol. 46. No. 6, p.229., October 19 – 22, 2014.

Hampsch, A.*, **Principato, S. M.,** and Emmons, E.*, 2014, Using sedimentology and GIS analysis to interpret paleo-ice flow in northern Iceland. NE Geological Society of America meeting in Lancaster, PA, March 23-25, 2014

Spooner, I., White, H. E.*, **Principato, S. M**., Stolze, S., and Hill, N., 2014, Records of late Holocene moisture regime from wetlands in Nova Scotia, Canada. NE Geological Society of America meeting in Lancaster, PA, March 23-25, 2014

Spooner, I., White, H.E.*, **Principato, S.,** Stolze, S. and Hill, N. 2014, Records of Late Holocene moisture regime from wetlands in Nova Scotia, Canada. The Atlantic Geoscience Society 40th Colloquium and Annual Meeting, Program with Abstracts. February 7-9, 2014. Wolfville, Nova Scotia. p.41

Principato, S. M., Lee, J. F.*, and Hampsch, A.*, 2013. GIS analysis of cirques on Vestfirðir, northwest Iceland: Implications for paleoclimate. Geological Society of America meeting in Denver, CO, Abstracts with Programs, vol. 45.

Principato, S.M., Reed, A.*, Markus, J.*, Baron, G.*, and Hampsch, A.*, 2013. A record of Holocene environmental change interpreted from peat in eastern Maine. NE Geological Society of America meeting in Bretton Woods, NH, March 18 - 20, 2013.

La Cruz, N.* **Principato, S. M.,** 2013. Assessing the impact of industrialization on lead levels in soils on the Gettysburg College Campus: A Chemical and Spatial Analysis. Northeast Geological Society of America meeting in Bretton Woods, NH, vol. 45.

Lee, J. F.* and **Principato, S.M.,** 2013. Using GIS to reconstruct paleo equilibrium-line altitudes from cirques in Northwest Iceland. Northeast Geological Society of America meeting in Bretton Woods, NH, vol. 45.

Moyer, A.N.* and **Principato, S. M.,** 2013. Using GIS and streamlined landforms to interpret paleo-ice flow in Northern Iceland. Northeast Geological Society of America meeting in Bretton Woods, NH, vol. 45.

Lee, J. F.* and **Principato, S. M.,** 2013. Using GIS to reconstruct paleo equilibrium-line altitudes from cirques in Northwest Iceland. 43rd International Arctic Workshop Program and Abstracts, Institute of Arctic and Alpine Research (INSTAAR), University of Colorado at Boulder, 165 pp.

Moyer, A. N.* and **Principato, S. M.,** 2013. Using GIS and streamlined landforms to interpret paleo-ice flow in Northern Iceland. 43rd International Arctic Workshop Program and Abstracts, Institute of Arctic and Alpine Research (INSTAAR), University of Colorado at Boulder, 165 pp.

Principato, S.M., Jasion, C. M.*, Moyer, A.N.*, Rossiter, C. D.*, Rouillard, E. G.*, Taormina, R.A.*, and Wooldredge, B. D.*, 2012, Physical Weathering at Devil's Den, Gettysburg National Military Park, PA. Geological Society of America meeting in Charlotte, NC, Abstracts with Programs, Vol. 44, No. 7, p.92.

Principato, S.M., Jones, B.*, and Jones, M.*, 2010, Geomorphic evidence for fast ice flow south of Hunafloi, North Iceland. Geological Society of America meeting in Denver, CO, Abstracts with Programs, vol. 42, No. 5, p. 243.

Reed, A.* and **Principato, S. M**., 2010. Loss-on-ignition and humification of a peat core from Quoddy Head State Park, ME. Northeast-Southeast Geological Society of America meeting in Baltimore, MD March 21-23, 2009.

Baron, G.*, **Principato, S.M**., and Jones, B., 2010. Loss-on-ignition and humification index of peat deposits near Penobscot, ME: Implications for Holocene Climate. Northeast-Southeast Geological Society of America meeting in Baltimore, MD March 21-23, 2009.

Principato, S.M., 2009, "Identifying Minerals and Meteorites: A Glacial Geologist in Environmental Studies". Geological Society of America Meeting, Portland, OR, October 2009

Principato, S.M. and Markus, J.T.*, 2009, Holocene environmental conditions interpreted from coastal mudflats and peat in Washington County, Maine. Northeast Geological Society of America Meeting in Portland, Maine. Abstracts with Programs, vol. 41.

Markus, J.T.* and **Principato, S.M.,** 2009, Sedimentology and humification index of peat deposits in New York and Maine, Northeast Geological Society of America Meeting in Portland, Maine. Abstracts with Programs, vol. 41.

Principato, S.M., 2007, Sedimentology and Humification of Peat Deposits on Northwest Iceland: Implications for Holocene Climate Variability, 37th International Arctic Workshop, Iceland.

Principato, S.M., and Barton, T.C.*, 2006, Holocene Climate Variability Interpreted from Peat Deposits on Northwest Iceland, Geological Society of America, Abstracts with programs, vol. 38.

Igusky, K.A.*, and **Principato, S.M**., 2006, Characteristics of Diamicton from Vestfirdir and the mainland of Iceland: Implications for Provenance, Northeast Geological Society of America, vol. 38.

Barton, T.C.,* and **Principato, S.M.,** 2006, Sedimentology and Humification Analyses of Peat Deposits from Northwest Iceland, Northeast Geological Society of America, vol. 38.

Principato, S.M., 2005, Teaching Earth System Science to Environmental Studies Majors, Northeast Geological Society of America, GSA Abstracts with Programs, vol. 37.

*Johnson, J. S. and **Principato, S.M.,** 2005, Evaluating the spatial distribution of ice-scour lakes on northwest Iceland, NCUR Programs and Abstracts.

Principato, S.M and Johnson, J. S.*, 2005, Geomorphic Evidence for Independent Icecaps on Northwest Iceland, Geological Society of America, Abstracts with Programs, vol. 37.

Principato, S.M., 2004, Holocene fluctuations of the Vestfirdir Icecap, NW Iceland. Geological Society of America, Abstracts with Programs, vol. 36.

*Johannsdottir, G**.,** Geirsdottir, A., Olafsdottir, S., and **Principato, S**, 2003, A tephra study of sediment cores and terrestrial sequences on the Vestfirdir Peninsula, NW Iceland; preliminary results. 33nd Arctic Workshop Programs and Abstracts, Tromso, Norway.

Principato, S.M., 2003, Using 36-chlorine ages and marine cores to constrain the Late Quaternary History of the Vestfirdir Peninsula, Iceland. 33nd Arctic Workshop Programs and Abstracts, Tromso, Norway.

Principato, S.M., Geirsdottir, A., Andrews, J.T., and *Johannsdottir, G., 2003, The deglacial history of eastern Vestfirdir, NW Iceland. Geological Society of America, Abstracts with Programs, vol. 35.

Principato, S.M., and Geirsdottir, A., 2002, Glacial geology of the Strandir and Isafjardardjup coastlines, NW Peninsula, Iceland, 25th Nordic Geological Winter Meeting, Abstract Volume.

Principato, S.M., Geirsdottir, A., and Andrews, J.T., 2002, Contrasting glacial geology of the Strandir and Isafjardardjup coastlines, NW Peninsula, Iceland, 32nd Arctic Workshop Programs and Abstracts.

Geirsdottir, A., Andrews, J.T., Miller, G.H.., Olafsdottir, S., **Principato, S**., and Kristjansdottir, G.B., 2002, Following the Late Weichselian retreat of the NW Iceland Ice Cap from shelf to land, Geological Society of America, Abstracts with Programs, vol 34.

Principato, S.M., and Geirsdottir, A., 2002, Glacial erosion patterns and moraine sequences on the Northwest Peninsula of Iceland, Geological Society of America, Abstracts with Programs, vol. 34.

John T. Andrews, Jorunn Hardardottir, Aslaug Geirsdottir, Gudrun Helgadottir, Joe S. Stoner, and **Sarah Principato**, 2002, Land/ocean interactions NW Iceland: sediment and sediment magnetic characteristics in the Isafjardardjup/Djupall/Blosseville Basin transect 36 to 0 cal BP. American Geophysical Union, Abstracts with Programs, Fall Meeting.

Principato, S.M. and Andrews, J.T., 2001, Interpreting the origin of diamicton units in marine cores from Iceland, 31st Arctic Workshop Program and Abstracts.

Principato, S.M., 2001, Image analysis of five diamicton units: an approach to understanding the depositional environment of marine cores from the Iceland Shelf, Image Analysis, Sediments, and Paleoenvironments Workshop, Program and Abstracts.

Principato, S.M., 2001, A multi-faceted approach to understanding the depositional environment of diamicton units from the Iceland Shelf, Geological Society of America, Abstracts with Programs, Vol. 33, No. 7

Principato, S.M., 2000, Glacial Geology of Reykjarfjordur, NW Iceland, Geological Society of America, Abstracts with Programs, Vol. 32, No. 7

Andrews, J.T. and **Principato,S.M**, 2000, The Glacial Maximum Around Iceland: Neophytes' Impressions, EPILOGUE Meeting, Oregon Univ, Oct. 2000.

Castañeda, I. S., and **Principato, S.M**., 2000, Sedimentological Analyses of three piston cores from Hunafloi, North Iceland Shelf, 30th International Arctic Workshop, Programs and Abstracts, Institute of Arctic and Alpine Research, Univ. of Colorado at Boulder, xvi.& 179pp.

Principato, S.M., and Mickelson, D.M., 1999, Integration of GIS in surficial and depth to

bedrock mapping in northeast Wisconsin, Geological Society of America, Abstracts with Programs, vol. 31, no. 7.

*Laabs, B. J., and **Principato, S.M**., 1999, Comparison of three techniques for measuring fabric in till in northeast Wisconsin, Geological Society of America, Abstracts with Programs, vol. 31, no. 7.

Principato, S. M., Mickelson, D.M., Socha, B., and *Laabs, B. J., 1999, Contrasting glacial record between two formations in northeastern Wisconsin: North-central Geological Society of America, Abstracts with Programs, v. 31, no. 2.

Mickelson, D. M., Colgan, Patrick, M., **Principato, S. M**. and Cutler, Paul, 1999, Use of traditional geologic maps to constrain landform genesis andpaleoglaciological modeling of the southern Laurentide ice sheet: North-central Geological Society of America, Abstracts with Programs, Abstracts with Programs, v. 31, no. 2.

*Laabs, B. J. and **Principato, S. M**., 1999, Bluff stratigraphy of the Lake Michigan shoreline in northern Sheboygan County, Wisconsin: Geological Society of America, Abstracts with Programs, v. 31, no.2.

Colgan. P.M., and **Principato, S.M.,** 1998, Distribution of glacial landforms and sediments in Wisconsin and the Upper Peninsula of Michigan, an application of GIS to glacial geology, North-central Geological Society of America, Abstracts with Programs, v. 30, 2, p11.

Principato, S.M., and Dunn, S.R., 1997, Application of calcite-dolomite thermometry, southern Grenville Province, Ontario, Northeast Geological Society of America, Abstracts with Programs, v. 29, 1, p. 74

Published Geological Maps:

Carlson, A.E., **Principato, S.M.**, Chapel, D.M., and Mickelson, D.M, 2011, Quaternary Geology of Sheboygan County, Wisconsin: *Wisconsin Geological and Natural History Survey Bulletin 106,* 32p. Map of Quaternary Deposits of Sheboygan County, Wisconsin.

Principato, S.M., 1999, The Quaternary Geology of Northern Sheboygan County, WI, (7.5' quads mapped: Cleveland East, Cleveland West, School Hill, Kiel, Marytown, Ct. Cloud, Elkhart Lake, Franklin, Howards Grove, Sheboygan North submitted to the USGS EDMAP along with 1:100,000 scale map and cross sections)

Professional Memberships:

Phi Beta Kappa Society
Sigma Xi, Member
Geological Society of America
American Geophysical Union

National Association of Geoscience Teachers
American Association for the Advancement of Science
Earth Science Women's Network
Association for Women Geoscientists

Courses Taught:

Earth System Science
Climate Change and Disasters
Natural Catastrophes and Geologic Hazards
Glaciers and Records of Climate Change
Geologic Disasters and Global Change
Geomorphology
Environmental Studies Senior Seminar
First Year Seminar: Geology of National Parks
Physical Geology
Environmental Geology
Introduction to Field Methods
Statistics for Geology and Geography Majors

Gettysburg College Governance:

2024	Chair's Compensation Working Group
2024	Visiting ES Assistant Professor Search Committees
2023 – 2024	Vice President, Phi Beta Kappa Iota Chapter
2023 – 2024	HHMI Inclusive Excellence Fellow, Gettysburg College
2022 – 2023	Co-chair of Provost Search Committee
2022	Visiting Assistant Professor Search Committee Member
2021 – 2022	Integrated Learning Committee: Pillar 3 Subcommittee of Strategic Planning Committee
2021-2022	JCCTL CPS & STEM Faculty Working Group
2021 – 2024	Faculty Grievance Committee
2021 – 2023	Assessment Coordinator for ES Department
2021	JCCTL Working Group: Supporting underrepresented minority students at Gettysburg College: Synthesis of literature in STEM fields
2021	Ad Hoc Committee to review student evaluations of teaching (SETs) and Common Course Evaluation
2019 – 2020	President's Distinction Working Group
2018 – 2024	Promotion Advisory Committee
2018	IPP Coordinator, Marine Ecologist Search Committee, tenure track
2017	Visiting Marine Ecologist Search Committee
2015 – 2024	NSF S-STEM faculty liaison for Environmental Studies
2015 – 2018	Faculty Personnel Committee, Chair 2017-2018
2015 – 2016	Curricular Efficiency Committee - Sustainable Excellence

2015 – present	Goldwater & Udall Campus Interviews, Nomination Committee
2015	Visiting Environmental Humanities Search Committee, Chair
2014	Marine Ecologist Search Committee, tenure track
2013 – 2014	Visiting Marine Ecologist Search Committee
2013	Environmental Studies Administrative Assistant Search Committee
2012	Environmental Scientist Search Committee
2011 – 2014	Faculty Advisor to Alpha Delta Phi
2010 – 2018	Eisenhower Institute- College Advisory Council
2010 – 2011	Ad Hoc Committee on Course Credit
2010 – 2011	Environmental Scientist Search Committee
2010; 2007; 2006	Sexual Assault Prevention Facilitator
2009 – 2010	Johnson Center for Creative Teaching, Advisory Board Member
2009	Alumni College Instructor
2009	Green Reading Series, Book Discussion Facilitator
2007 – 2008	Environmental Studies, Humanities Search Committee
2007 – 2009	Faculty Development Committee
2007	Faculty Council
2006 – 2007	Enhanced Learning Spaces Committee
2005 – present	Duke Marine Lab, MSEC representative for Gettysburg College
2005 – 2007	Interdisciplinary Studies Committee
2005 – 2006	Environmental Scientist Search Committee
2004 – 2008	Library Liaison
2004 – 2009	Faculty Advisor to Gettysburg Environmental Concerns Organization
2004 – 2007	Technical Advisory Committee
2003 – 2004	Environmental Studies GIS Search Committee

Faculty Mentoring at Gettysburg College:

Promotion Advisory Committee
External Mentor to Faculty in Other Departments
Internal Mentor to Environmental Studies faculty member
Pre-tenure and tenure review committee for Math faculty member
Pre-tenure review committee for Education faculty member