

August 2023

Gregory S. Vandenberg Curriculum Vitae

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RESEARCH INTERESTS

Heavy metals in the environment	Water resources and water quality
Fluvial and glacial geomorphology	Glacial meltwater hydrology
Geographic information systems/remote sensing	Disturbed land reclamation

EDUCATION

Ph.D., Geography, Kansas State University, Manhattan, KS (2005).

Dissertation Title: "Distribution of Trace Elements in Floodplain Soils and Sediments of the Upper Blackfoot River, Montana." Advisor: C.W. Martin

M.S., Earth Science (Geology), Montana State University, Bozeman, MT (1993).

Thesis Title: "Temporal and Spatial Relationships of Late Quaternary Valley and Piedmont Glaciers in Tom Miner Basin, Montana." Advisor: W.W. Locke

B.A., Geology, College of St. Thomas, St. Paul, MN (1985).

APPOINTMENTS

2023-Present **Chair, Department of Geography and Geographic Information Science**, University of North Dakota, Grand Forks, ND.

2021-Present **Gransberg Family Endowed Chair**, University of North Dakota, Grand Forks, ND.

2018-Present **Director of Environmental Studies**, University of North Dakota, Grand Forks, ND.

2017-Present **Professor of Geography**, Department of Geography and Geographic Information Science, University of North Dakota, Grand Forks, ND.

2019-2021 **Interim Chair** Department of Anthropology, University of North Dakota, Grand Forks, ND.

2015-2020 **Chair**, Department of Geography, University of North Dakota, Grand Forks, ND.

2012-2014 **Graduate Director**, Department of Geography, University of North Dakota, Grand Forks, ND.

- 2013-2014 **Interim Director**, Geographic Information Science Graduate Certificate (Online and On campus), University of North Dakota, Grand Forks, ND
- 2011-2017 **Associate Professor of Geography**, Department of Geography, University of North Dakota, Grand Forks, ND.
- 2009-Present **Full Member Graduate Faculty**, University of North Dakota, Grand Forks, ND
- 2008-2012 **Director**, Geographic Information Science Graduate Certificate (Online and on campus), University of North Dakota, Grand Forks, ND
- 2005-2009 **Associate Member, Graduate Faculty**, University of North Dakota, Grand Forks, ND.
- 2004-2011 **Assistant Professor of Geography**, Department of Geography, University of North Dakota, Grand Forks, ND.
- 2003-2004 **Research Scientist**, Reclamation Research Unit, Department of Land Resources and Environmental Sciences, Montana State University, Bozeman, MT.
- 2003 **Graduate Research Assistant**, Department of Geography, Kansas State University, Manhattan, KS.
- 2000-2003 **Graduate Teaching Assistant**, Department of Geography, Kansas State University, Manhattan, KS.
- 1996-2002 **Research Associate/Reclamation Specialist**, Reclamation Research Unit, Department of Land Resources and Environmental Sciences, Montana State University, Bozeman, MT.
- 1995 **Research Assistant**, Reclamation Research Unit, Department of Animal and Range Sciences, Montana State University, Bozeman, MT.
- 1990-1995 **Environmental Specialist**, Leaking Underground Storage Tank Program, Montana Department of Environmental Quality (Formerly Department of Health and Environmental Sciences), Helena, MT.
- 1987-1989 **Graduate Teaching Assistant**, Department of Earth Sciences, Montana State University, Bozeman, MT.
- 1986 **Geologist and Drill Crew Chief**, Allied Test Drilling, Eagan, MN.

TEACHING

Courses

- Foundations of Environmental Science (ENRV 122 at UND)
- Global Physical Environment (Geog 121 at UND).
- GPS Applications and Theory (Geog 378 at UND).
- Natural Regions of U.S. and Canada (Geog 421/521 at UND).
- Great Plains Physiography (Geog 421/521 at UND).
- Conservation and Sustainable Use of Natural Resources (Geog 454 at UND).
- Introduction to Geographic Information Systems (Geog 474/L at UND).
- Introduction to Geographic Information Systems, Online (Geog 474/L at UND).
- Directed Studies in Geographical Problems - Field Hydrology (Geog 494 and GEOL 491 at UND, co-taught with Phil Gerla).
- Graduate Studies in Geography (Geog 500 at UND).
- Geography Seminar, Advanced Environmental Geography (Geog 541 at UND).

- Advanced Techniques in Geographic Information Systems (Geog 574 at UND).
- Field Methods and Analysis in Geography (Geog 576/421 at UND).
- Directed Studies in Geographical Problems (GIS Graduate Certificate Program, Spatial Statistics) (Geog 591 at UND).
- Geospatial Technologies for Implementing National Geography Standards Workshop (Geog 900 at UND)
- US Master Seminar (A&S 299 at UND, co-taught every semester with 4 other faculty since 2012).
- Environmental Geography I and II (GEOG 221 and 222 at Kansas State University).
- Introduction to the Earth's Interior Lab (Montana State University).
- Introduction to the Earth's Surface Lab (Montana State University).
- Introduction to Physical Geography Lab (Montana State University).
- Introduction to Physical Geography Lab (Montana State University)

Graduate Research Advised at UND **Completed**

- 2023 Jacob Moll, M.S. 2023, "Remote Sensing of Chlorophyll-A in Small and Medium Lakes in the Minnesota Northern Forest Ecoregion"
- 2022 Christine Lidenberg, M.S. 2022, "Suitability Analysis of Snow and Ice Changes for Ice Patch Archaeology: A Case Study in the Crazy Mountains, Montana"
- 2022 Jacob Shaughnessy, M.S. 2022. "Monitoring Algal Production Trends In Minnesota Lakes Using Sentinel-2 Imagery and Hotspot Analysis"
- 2021 Laura Akindo, M.S. 2021. "Riparian Vegetation Changes Along the Red River of the North: 1997-2018"
- 2019 Neha Patel, M.S. 2019. "Use of Landsat Satellite Imagery to Identify the Salinization of Soil Due to Brine Spills in Northwestern North Dakota"
- 2017 Katie Engelmann, M.S. 2017. "Evaluating Wetland Expansion in a Tallgrass Prairie-wetland Restoration"
- 2015 Dasuni Jeewandika Perera Ranapathi Arachchige, M.S. 2015. "Mapping Flash Flood Potential Using GIS And The Flash Flood Potential Index (FFPI) in the Turtle River and Forest River Watersheds in North Dakota"
- 2014 Rick Thalacker, M.S. 2014. "Identifying Locations of Highly Eroded Agricultural Land in the Devils Lake Basin, ND Using GIS terrain Analysis Modeling." Thesis Committee Chair.
- 2012 Matthew Dinger, M.S. 2012. "Identifying Locations of Highly Eroded Agricultural Land In the Devils Lake Basin, ND Using GIS terrain Analysis Modeling" Thesis Committee Chair.
- 2011 Rhonda Olson, M.S. 2011. "Assessment of Potential Sediment and Nutrient Loading from Rural/Agricultural to Urban Land Use Transition on the English Coulee, Grand Forks, ND" Thesis Committee Chair.
- 2010 Erin Pederson, M.S. 2010. "Geographic Distribution of Natural and Anthropogenic Noise in Selected Grand Forks Parks" Thesis Committee Chair.
- 2008 James Lindstrom, M.S. 2008. "Recreation Use Characteristics of the Maah Daah Hey Trail" Thesis Committee Chair.

- Darrel Nucech, M.S. 2008. “Geographic Variables Affecting Nest Locations of Bald Eagles (*Haliaeetus Leucocephalus*) in the Red River Valley of the North”. Directed Study Advisor.
- 2007 Julie Gallagher, M.S. 2007. “Application of Remote Sensing LiDAR Data for the Detection of Cultural Resources in a Forested Environment: An Example from Isle Royale National Park, Michigan” Thesis Committee Chair.
- 2006 Joshua J. Johnston, M.S. 2006. “Geographic Variables Affecting Bald Eagle (*Haliaeetus Leucocephalus*) Nest Locations in the Red River Valley of North Dakota and Minnesota.” Thesis Committee Chair.

In Progress

- JamesGuy Gierisch, M.S. (2021-present)
- Sae Young Lee, M.S. (2022-present)
- Karl Seames, M.S. (2020-present)

Graduate Committees

Completed

- 2023 Ian Geller, M.S. Geography
Vida Atashi, Ph.D. Engineering
Nana
- 2022 Marie Bergelin, Ph.D. Geology
Mason Ryckman, M.S. Biology
- 2021 Miranda Shanks, M.S. Geology
Morgen Burke, Ph.D. Earth System Science and Policy
- 2020 Karthik Balaji, Ph.D., Petroleum Engineering
Eohjin Lee, M.S. Geography
- 2019 Katelyn Barber, Ph.D. Atmospheric Science
Matthew Cox, M.S. Civil Engineering
Tyson Jeannotte, M.S. Geology
- 2018 Nana Owusu-Amponsah, M.S. Earth System Science and Policy
Lance Di Angelis, M.S. Earth System Science and Policy
Anna Schneider, M.S. Biology
- 2017 Jacqueline Amor, M.S. Geography
Eric Torgerson, M.S. Geography
Benjamin York, M.S. Geology
- 2016 Emma Lord, M.S. Geology
- 2015 Anna Crowell, Ph.D. Geology
- 2014 Ted Bibby, Ph.D. Geology
Prosper Gbolo, Ph.D. Geology
- 2013 Nicholas Buer, M.S. Geology
- 2012 Blake McCann, Ph.D. Biology
- 2010 Peter Metzger, M.S. Geography
- 2009 Susan Wahl, M.S. Geography

2008 Virginia Regorrah, M.S. Geography
2007 Scott Abel, M.S. Geography
Abby Franklin, M.S. Geology
Lisa Kuchy, M.S. Geography
Kristofer Parson, M.S. Geography

In Progress

- Nels Anderson, M.S. Geography
- Lance Di Angelis, Ph.D. ESSP
- Cory Enger, M.S. Geography
- Mark Ingham, M.S. Geography
- Robbie MacDonald, M.S. ESSP
- Anduin McElroy, M.E.M. ESSP

Teaching Workshops Presented

Workshop Organizer and Presenter (June 7-8, 2022), North Dakota Geographic Alliance GeoFit workshop. Title: Remote Sensing and Forestry.

Workshop Organizer and Presenter (June 5 – 9, 2017). North Dakota Geographic Alliance Teaching workshop. Title: People and Places of the Red River Valley.

Workshop Presenter (June 13 and 20, 2007). With Dakota Science Center at Lake Region State College, Devils Lake, ND. Title: Geospatial Technologies for Implementing National Geography Standards Workshop (Geog 900).

Workshop Presenter (October 25, 2006). North Dakota GIS Users Conference, Bismarck, ND. Title: “Introduction to ArcPad: Mobile GIS.”

Workshop Presenter (June 14 and 21, 2006). With Dakota Science Center at Mayville State University, Mayville, ND. Title: Geospatial Technologies for Implementing National Geography Standards Workshop (Geog 900).

Workshop Presenter (October 26, 2005). North Dakota GIS Users Conference, Bismarck, ND. Title: “Introduction to Remote Sensing.”

Workshop Presenter (April 25, 2005). National States Geographic Information Council (NSGIC) Geospatial Workshop, Bismarck, ND. Title: “Introduction to GIS.”

Development and Teaching Workshops Attended

Workshop, "Human Dimensions of Private Land Management for Conservation," College of Arts and Sciences, University of North Dakota, Grand Forks, North Dakota. (October 4, 2013).

Workshop, "2013 LiDAR Training for GIS Users," University of Minnesota, Morris, Minnesota. (August 13, 2013 - August 14, 2013).

Workshop, "Active Learning in Large Classes," Office of Instructional Development, University of North Dakota, Grand Forks, North Dakota. (May 29, 2013 - May 30, 2013).

Continuing Education, "Teaching with Technology," Center for Instructional and Learning Technologies, University of North Dakota, Grand Forks, North Dakota. (May 14, 2013 - May 23, 2013).

Alice T. Clark Scholars Mentoring Program - University of North Dakota, Grand Forks, ND (Fall 2004 to 2005).

Geography Faculty Development Alliance - University of Colorado, Boulder, CO (Workshop 2, June 19-26, 2004).

Smart Podium

PUBLICATIONS

Refereed Publications

2023 Owusu-Amponsah, NY, VanLooy, JA, **Vandenberg, GS**. Changes in snow and ice surface albedo and its impact on snow and ice area in the Wind River Range, Wyoming, USA. *Physical Geography*. DOI10.1080/02723646.2022.2136594

Ryckman, M., Kemink, K., Felege, C., Darby, B., **Vandenberg, G.**, Ellis-Felege, S. Behavioral responses of Blue-winged Teal and Northern Shoveler to unmanned aerial vehicle surveys. *Plos One*, 17, e0262393.

2020 Jeannotte, T., Mahmood, T., **Vandenberg, G.**, Matheney, R., Hou, X., Van Hoy, D. (2020). Impacts of Cold Region Hydroclimatic Variability on Phosphorus Exports: Insights from Concentration-Discharge Relationship. *Journal of Hydrology*, 591, 125312.

2019 Barnas, A., Darby, B., **Vandenberg, G.**, Rockwell, R. F., Ellis-Felege, S. Assessment of lesser snow goose (*Anser caerulescens caerulescens*) habitat degradation in La Perouse Bay using unmanned aircraft. *PLOS ONE*.

Schneider, A. L., Gilbert, A. T., Walter, W. D., **Vandenberg, G.**, Boulanger, J. Spatial ecology of urban striped skunks (*Mephitis mephitis*) in the Northern Great Plains: a framework for future oral rabies vaccination programs. *Urban Ecosystems*, 22(3), 539-552.

VanLooy, J., **Vandenberg, G.** Late summer glacial meltwater contributions to Bull Lake Creek stream flow and water quality, Wind River Range, Wyoming, USA. *Physical Geography*, 1-20.

- 2016 **Vandenberg, G. S.**, VanLooy, J. Continental Glacier meltwater contributions to late summer stream flow and water quality in the northern Wind River Range, Wyoming, USA. *Environmental Earth Sciences*. 75, 389
<http://link.springer.com/article/10.1007/s12665-016-5295-0>.
- Casson, N. J., Burke, M., Ducharme, A., McGregor, B., Paterson, J., Piowar, J., Thompson, K., Wilson, N., **Vandenberg, G.** Field Trip: The Experimental Lakes Area. *Prairie Perspectives*, 18, 110-114. <http://pcag.uwinnipeg.ca/Prairie-Perspectives/PP-Vol18/Casson-et-al.pdf>
- 2015 **Vandenberg, G.**, Dixon, C. S., Vose, B., Fisher, M. R. Spatial assessment of water quality in the vicinity of Lake Alice National Wildlife Refuge, upper Devils Lake basin, North Dakota. *Environmental Monitoring and Assessment*, 187(2):40.
 doi:10.1007/s10661-014-4222-7.
- Gbolo, P., Gerla, P., **Vandenberg, G.** Using high-resolution, multispectral imagery to assess the effect of soil properties on vegetation reflectance at an abandoned feedlot. *Geocarto International* 30(7):793-809
<http://dx.doi.org/10.1080/10106049.2014.985746>.
- 2014 VanLooy, J., Miede, C., **Vandenberg, G.**, Forster, R. R. Ice-volume estimation inferred from ice-thickness and surface measurements for Continental Glacier, Wind River Range, Wyoming, U.S.A. *Journal of Glaciology*, 60(221), 478-488.
- 2013 Rundquist, Bradley and **Gregory Vandenberg**. Fully engaging students in the remote sensing process through field experience. *Journal of Geography*. 112 (6):262-270.
- 2011 **Vandenberg, G. S.**, Martin, C. W., Pierzynski, G. M. Spatial distribution of trace elements in floodplain alluvium of the upper Blackfoot River, Montana. *Environmental Earth Sciences*, 62:1521-1534. DOI 10.1007/s12665-010-0637-9.
- 2007 **Vandenberg, Gregory S.** Climatic change and fluvial systems. In *Climate Change and Variations: A Primer for Teachers*, ed. W.A. Dando, 93-102. Pathways in Geography Series No. 35. Washington, D.C.: National Council for Geographic Education.
- Vandenberg, Gregory S.** William Wetherholt, Todd Fahrni, Paul E. Todhunter and Douglas C. Munski. Investigating the Prairie Pothole Region of Central North Dakota: Field Trip Guide. *Prairie Perspectives Geographical Essays* 10:291-304.
- 2006 **Vandenberg, G.S.**, C.W. Martin and G.M. Pierzynski. 2006. Modeling of the distribution of trace elements in floodplain soils of the upper Blackfoot River, Montana (extended abstract). In *Proceedings of the 10th Billings Land Reclamation Symposium*, Billings, MT, June 2006: 749-750.

- 2005 Neuman, D.R., **G.S. Vandenberg**, P.B. Blicher, S.R. Jennings and K. Ford. 2005. Phytostabilization of acid metalliferous mine tailings at the Keating Site in Montana. In *Proceedings of the Annual Meeting of the American Society of Mining and Reclamation*, Breckenridge, CO, June 2005: 791-806.
- 2003 **Vandenberg, Gregory S.** 2003. Identification and characterization of mining waste using Landsat Thematic Mapper imagery, Cherokee County, Kansas. In *Proceedings of the Annual Meeting of the American Society of Mining and Reclamation and the Billings Symposium*, Billings, MT, June 2003: 1329-1347.
- 2000 **Vandenberg, Gregory S.** and Douglas J. Dollhopf. 2000. Plant growth on saline and acidic(noncontaminated) borrow soils, I. borrow soil plant growth demonstration for Opportunity Ponds coversoil. *Reclamation Research Unit Publication No. 2002*. Bozeman, MT: Reclamation Research Unit, Montana State University, 89p.
- Vandenberg, G.S.**, D.J. Dollhopf, J.D. Goering and D.R. Neuman. 2000. Evaluation of ferric oxide for adsorption of arsenic leaching from a mine waste repository: In *Proceedings of the Billings Land Reclamation Symposium*, Billings, MT, June 2000: 360-371.
- 1999 Dollhopf, D.J., J.D. Goering, **G.S. Vandenberg** and D.R. Neuman. 1999. Evaluation of ferric oxide for adsorption of arsenic leaching from a mine waste repository, *RRU Publication No. 9901*, Bozeman, MT: Reclamation Research Unit, Montana State University.
- 1998 Dollhopf, D.J., **G.S. Vandenberg**, D.R. Neuman and S.R. Jennings. 1998. Determination of soil amendments and plant species for lands adjacent to repositories in the Old Works/East Anaconda Development Area, *RRU Publication No. 98-03*, Bozeman, MT: Reclamation Research Unit, Montana State University.
- 1997 Reclamation Research Unit. 1997. ARTS Phase IV, Anaconda revegetation treatability study, monitoring and evaluation, *RRU Publication No. 9703*, v. 1 and 2, Bozeman, MT: Reclamation Research Unit, Montana State University.

Book Chapters

- 2020 Rundquist, B., **Vandenberg, G.** The Geographic Setting of the Bakken Oil Shale Play. In Kyle Conway (Ed.), *Sixty Years of Boom and Bust: The Impact of Oil in North Dakota, 1958–2018* (pp. 67-100). Grand Forks, North Dakota: Digital Press @ the University of North Dakota.
- 2019 Wetherholt, W., **Vandenberg, G.** Reading the Landscape in Antler, ND: Repeat Photography in an Atrophying Northern Plains Town. In Brunn, Stanley D.; Kehrein, Roland. (Ed.), *Handbook of the Changing World Language Map* (pp. 23). Cham: Springer International Publishing

Reports and Reviews

- 2012 **Vandeberg, Gregory S.** Surface Water and Sediment Quality Summary: 2007-2011 Lake Alice National Wildlife Refuge, North Dakota. Report Prepared for U.S. Fish and Wildlife Service (pp. 338). Grand Forks, North Dakota: Department of Geography, University of North Dakota.
- 2011 **Vandeberg, Gregory S.** Surface Water and Sediment Quality Trends: 2007-2009, Lake Alice National Wildlife Refuge North Dakota. Report Prepared for U.S. Fish and Wildlife Service (pp. 530). Grand Forks, ND: Department of Geography, University of North Dakota.
- 2010 **Vandeberg, Gregory S.** Book Review of Representing, modeling, and visualizing the natural environment, edited by Nick Mount et al. *Photogrammetric Engineering & Remote Sensing* 76 (3):239.
- 2009 **Vandeberg, Gregory S.** and Brooks Hansen. Water and sediment quality 2008 Lake Alice National Wildlife Refuge, North Dakota. 2008 Final Sampling Report. Grand Forks, ND: Department of Geography. 145p. (draft reviewed and commented on by U.S. Fish and Wildlife Service scientists).
- 2007 Vandeberg, Gregory S. "Characterization of Water and Sediment Quality of Lake Alice National Wildlife Refuge, North Dakota". Report prepared for U.S.F.W.S. Devils Lake, ND. Grand Forks, ND: Department of Geography.
- Nucech, Darrel and Gregory S. Vandeberg. "Identification of Bald Eagle Nest Locations in the Red River Valley of North Dakota and Minnesota, Final North Dakota View Grant Report."
- 2006 Johnston, Joshua J. and **Gregory S. Vandeberg.** "Geographic Variables Affecting Bald Eagle (*Haliaeetus Leucocephalus*) Nest Locations In the Red River Valley of North Dakota and Minnesota, Final North Dakota View Grant Report."
- 2003 Reclamation Research Unit. Phase I report for phytostabilization studies at the Keating tailings site, near Radersburg, Montana, prepared for the Bureau of Land Management, U.S. Department of the Interior. Bozeman, MT: Reclamation Research Unit, Montana State University.
- 1998 Maxim Technologies, Interfluve, Inc., Reclamation Research Unit and Bighorn Environmental. Preliminary final design report, remedial action Subarea 1, Reach A, Streamside Tailings Operable Unit, Silverbow Creek/Butte area NPL site, report prepared for Montana Department of Environmental Quality and U.S. Environmental Protection Agency Montana Office, Helena, MT.

- 1997 Dollhopf, D.J. and **G.S.Vandenberg**. Testing of deep plowing as a reclamation option for the Drag Strip area, Old Works Operable Unit, Anaconda, Montana, report prepared for the Montana Department of Environmental Quality, Helena, MT and the U.S. Environmental Protection Agency, Montana Office, Helena, MT. Bozeman, MT: Reclamation Research Unit, Montana State University.

Reclamation Research Unit. Plant growth response on amended soils located adjacent to repositories in the Old Works Operable Unit, Anaconda, Montana, report prepared for the Montana Department of Environmental Quality, Helena, MT. Bozeman, MT: Reclamation Research Unit, Montana State University.

Reclamation Research Unit. Identification of potential remediation designs and data requirements for selected areas in the Old Works, Anaconda, MT, report prepared for the Montana Department of Environmental Quality, Helena, and the U.S. Environmental Protection Agency, Helena, MT. Bozeman, MT: Reclamation Research Unit, Montana State University.

Field Trip Guides

- 2017 **Vandenberg, Gregory**. "Eastern North Dakota Glacial Landscapes Field Trip Guide". Annual Meeting of the Great Plains/Rocky Mountain Division of the American Association of Geographers, Grand Forks, ND. October 13-14, 2017. 15p.

- 2008 **Vandenberg, Gregory**. "The Glacial and Fluvial Geomorphology of the Drift Prairie Region". Annual Meeting of the Association of American Geographers Great Plains - Rocky Mountain Division, and ASPRS Upper Midwest Chapter, Grand Forks, ND, September 12-13, 2008. 20p.

- 2007 **Vandenberg, Gregory** and Douglas Munski. "Graduate Student Field Trip" Department of Geography, University of North Dakota, September 8.

Vandenberg, Gregory S. William Wetherholt, Todd Fahrni, Paul E. Todhunter and Douglas C. Munski. Investigating the Prairie Pothole Region of Central North Dakota: Field Trip Guide. *Prairie Perspectives Geographical Essays* 10:291-304

- 2006 **Vandenberg, Gregory** and Douglas Munski. "Graduate Student Field Trip" Department of Geography, University of North Dakota, August 26. 6p.

- 2005 **Vandenberg, Gregory**, Douglas Munski and Juan Pedraza. "New Student Field Trip", Department of Geography, University of North Dakota, August 27. 36p.

Maps

- 2013 **Vandenberg, G.S.** The Environs of Jerusalem. Figure 1. In Dando, W.A. The Jerusalem famine of A.S. 70: a horrible tribute to human failings. In Dando, W.A., C.Z. Dando and J.J. Lu (eds). *Geography of the Holy Land New Insights*. Kaohsiung, Taiwan: Holy Light Theological Seminary Press.

- Vandeberg, G.S. The Walls of Jerusalem A.S. 70. Figure 2. In Dando, W.A. The Jerusalem famine of A.S. 70: a horrible tribute to human failings. In Dando, W.A., C.Z. Dando and J.J. Lu (eds). *Geography of the Holy Land New Insights*. Kaohsiung, Taiwan: Holy Light Theological Seminary Press.
- 2006 **Vandeberg, G.S.** and K. Glazewski. Turtle River State Park Winter Trails. North Dakota Parks and Recreation: Bismarck, ND.
[<http://ndsl.lib.state.nd.us/statedocs/ParksRec/wintertrails20081205.pdf>].
- Vandeberg, G.S.** and K. Glazewski. Turtle River State Park Summer Trails. North Dakota Parks and Recreation: Bismarck, ND.
[<http://ndsl.lib.state.nd.us/statedocs/ParksRec/summertrails20081205.pdf>]

Curriculum Materials

- 2008 **Vandeberg, G.S.**, Jin-Kyu Jung and J.J. Johnston. *Introduction to Geographic Information Systems (GIS) Geog 474 Laboratory Manual*. Third Edition. Grand Forks: University of North Dakota Department of Geography. 99p.
- 2007 **Vandeberg, G.S.** and J.J. Johnston. 2007. *Introduction to Geographic Information Systems (GIS) Geog 474 Laboratory Manual*. Second Edition. Grand Forks: University of North Dakota Department of Geography. 89p.
- 2006 **Vandeberg, G.S.** and J.J. Johnston. 2006. *Introduction to Geographic Information Systems (GIS) Geog 474 Laboratory Manual*. Grand Forks: University of North Dakota Department of Geography. 89p.

WORK IN PROGRESS

VanLooy, J.A. and **G.S. Vandeberg**. Late summer glacial meltwater contributions to Bull Lake Creek, Wind River Range, Wyoming, based on field measurements and stable isotopes.

PROFESSIONAL MEETING PRESENTATIONS

National/International

- 2023 Kubatova, A., Simmons, R., Pedersen, D., Mattingly, S., Marasinghe, K., **Vandeberg, G.**, Zerr, R., National Conference on Undergraduate Research (NCUR) 2023, "Engaging students through paired science literacy-research experience seminar series," Council on Undergraduate Research, Eau Claire, Wisconsin. (April 13, 2023).

- Lidenberg, C. K. (Author Only), **Vandeberg, G. S.** (Presenter & Author), VanLooy, J. (Co-Author), Scharf, E. (Co-Author), 2023 Annual Meeting American Association of Geographers, "Perennial Snow and Ice Changes in the Crazy Mountains, Montana from 1972 to 2020: A Model for Ice Patch Archaeology Exploration," American Association of Geographers, Denver, Colorado. (March 27, 2023).
- Owusu-Amponsah, N. Y. (Presenter & Author), VanLooy, J. (Co-Author), **Vandeberg, G.** (Co-Author), 2023 Annual Meeting American Association of Geographers, "Albedo changes on snow and ice surfaces as a melting factor in the Wind River Range, Wyoming," American Association of Geographers, Denver, Colorado. (March 25, 2023).
- Khan, M. (Presenter & Author), **Vandeberg, G.S.** (Co-Author), Annual Meeting American Association of Geographers, "The Past and Present History of Earth Science Applications Using the NASA Database Regarding Bangladesh Tropical Cyclone Forecast Advancement," American Association of Geographers, Denver, Colorado. (March 25, 2023).
- Vandeberg, G.** (Presenter & Author), Rundquist, B. (Co-Author), Lidenberg, C. (Co-Author), West, T. (Co-Author), Patel, N. (Co-Author), PECORA 22 Remote Sensing Conference, "Analysis of Brine Spill Impacted Lands of Western North Dakota Using Landsat 7 ETM+ and Landsat 8 OLI Imagery," U.S. Geological Survey and NASA, Denver, Colorado. (October 27, 2022).
- 2022 Kubatova, A., Simmons, R., Pedersen, D., **Vandeberg, G.**, 2022 S-STEM Symposium, "Fostering Science Identity through Interdisciplinary Research for Underrepresented Students in STEM," AAAS, Washington, DC. (September 29, 2022).
- Vandeberg, G.** (Presenter & Author), Kubatova, A. (Co-Author), Simmons, R. (Co-Author), Pedersen, D. (Co-Author), Zerr, R. (Co-Author), Marasinghe, K. (Co-Author), Mattingly, S. (Co-Author), Nelson, S. (Co-Author), 2022 Annual Meeting of the American Association of Geographers, "Undergraduate Research in STEM: Individual and Seminar-Based Learning Approaches," American Association of Geographers, New York, NY (virtual). (February 25, 2022).
- 2021 Simmons, R. (Presenter & Author), Kubatova, A. (Author Only), Pedersen, D. (Author Only), **Vandeberg, G.** (Author Only), Nelson, S. (Author Only), Mattingly, S. (Author Only), Marasinghe, K. (Author Only), Zerr, R. (Author Only), Annual Meeting, "Using a book club approach to create a learning community and develop science identity for STEM students during a pandemic," Entomological Society of America, Denver CO. (November 3, 2021).

- Patel, N. (Presenter & Author), **Vandenberg, G.** (Co-Author), Rundquist, B. (Co-Author), 2021 Annual Meeting American Association of Geographers, "Use of Landsat Satellite Imagery to Identify the Salinization of Soil Due to Brine Spills in Northwestern North Dakota," American Association of Geographers, Virtual. (April 9, 2021).
- Vandenberg, G.** (Presenter & Author), VanLooy, J. (Co-Author), Li, Y. (Co-Author), Caparo Bellido, A. (Co-Author), Owusu-Amponsah, N. Y. (Co-Author), DiAngelis, L. (Co-Author), 2021 Annual Meeting American Association of Geographers, "Meltwater Characteristics of Continental Glacier, Wind River Range, Wyoming, USA," American Association of Geographers, Virtual via Zoom. (April 7, 2021).
- 2020 Simmons, R. (Presenter & Author), Kubatova, A. (Author Only), Pedersen, D. (Author Only), Kelsch, A. (Author Only), Hawthorne, J. (Author Only), **Vandenberg, G.** (Author Only), Mattingly, S. (Author Only), Nelson, S. (Author Only), Annual Virtual Meeting of the Entomological Society of America, "Examining the Role of Mentoring on Student Success in STEM.," Entomological Society of America, Virtual Meeting/Livestream. (November 19, 2020).
- Kubatova, A., Pedersen, D., Kelsch, A., Hawthorne, J., Simmons, R., **Vandenberg, G.**, Mattingly, S., Nelson, S., ACS Fall 2020 Virtual Meeting and Expo, "Implementation of tiered mentoring and professional development for mentees and mentors to promote science identify and increase success in STEM," American Chemical Society. (August 17, 2020).
- 2019 Schneider, A. (Co-Author), Gilbert, A. (Co-Author), Walter, W. D. (Co-Author), **Vandenberg, G.** (Co-Author), Boulanger, J. (Presenter & Author), The International Urban Wildlife Conference, "Spatial ecology of urban striped skunks (*Mephitis mephitis*) in the Northern Great Plains," Portland State University and The Wildlife Society's Urban Wildlife Working Group, Portland, OR. (June 4, 2019).
- Vandenberg, G.**, Rundquist, B. (Co-Author), AmericaView Annual Business Meeting, "North Dakota View Successes and Planned Activities," AmericaView, Sterling, Virginia. (March 26, 2019).
- 2018 Perea, D. J. (Presenter & Author), **Vandenberg, G.** (Co-Author), International Conference on the Humanities and the Social Sciences, "Mapping Flash Flood Potential Using Gis In The Turtle River And Forest River Watersheds In North Dakota, United States Of America," Faculty of Arts, University of Peradeniya, Peradeniya, Sri Lanka. (November 22, 2018).

- Pedersen, D., Kubatova, A., Simmons, R., **Vandenberg, G.**, Zerr, R., Project Kaleidoscope American Association of Colleges and Universities, "Promoting Success in and Undergraduate Scholarship Program: Expressive Mentoring and Emotional Labor," AACU, Atlanta, GA. (November 8, 2018).
- Todhunter, P. (Presenter & Author), Flynn, D. (Co-Author), Rundquist, B. (Co-Author), **Vandenberg, G.** (Co-Author), Wang, E. (Co-Author), Annual Meeting, American Association of Geographers, "Long-Term Flood Recovery at Grand Forks, North Dakota: Which Recovery Sector? When Recovered? Why Recovered?," American Association of Geographers, New Orleans, LA. (April 14, 2018).
- Schneider, A. (Presenter & Author), Gilbert, A. (Co-Author), Ellis-Felege, S. (Co-Author), **Vandenberg, G.** (Co-Author), Boulanger, J. (Co-Author), North Dakota Chapter of the Wildlife Society Annual Meeting, "Evaluation of movements and habitat use of suburban striped skunks (*Mephitis mephitis*) in the Northern Great Plains," North Dakota Wildlife Society, Mandan, ND. (February 8, 2018).
- 2017 Amor, J. M. (Presenter & Author), Rundquist, B. (Co-Author), Jensen, W. F. (Co-Author), **Vandenberg, G.** (Co-Author), Newman, R. (Co-Author), Goodwin, B. (Co-Author), Boulanger, J. (Co-Author), 20th Annual Society for Conservation GIS International Conference, "An evaluation of elk movement and habitat selection in North Dakota," Pacific Grove, California. (July 17, 2017).
- VanLooy, J. (Presenter & Author), **Vandenberg, G.** (Co-Author), American Association of Geographers Annual Meeting, "Long-term Monitoring of Ice in One of the World's Most Iconic Wildernesses: Potential Benchmark Glaciers in the Greater Yellowstone Ecosystem," American Association of Geographers, Boston, MA. (April 8, 2017).
- Vandenberg, G.** (Presenter & Author), VanLooy, J. (Co-Author), American Association of Geographers Annual Meeting, "Glacial Meltwater Chemistry and Contributions to Streams in the Wind River Range, Wyoming," American Association of Geographers, Boston, MA. (April 5, 2017).
- 2016 **Vandenberg, G.** (Presenter & Author), VanLooy, J. (Co-Author), The 13th Biennial Scientific Conference on the Yellowstone Ecosystem, "Late Summer Glacial Meltwater Contributions and Nutrient Loading to Streams in the Southern Greater Yellowstone Ecosystem: Examples from the Wind River Range, Wyoming," Yellowstone Association, Grand Teton National Park, Wyoming. (October 5, 2016).

- VanLooy, J. (Presenter & Author), **Vandenberg, G.** (Co-Author), The 13th Biennial Scientific Conference on the Yellowstone Ecosystem, "Monitoring Changing Glacial Conditions and Contributions to Stream Flow Across the Southern Greater Yellowstone Ecosystem," Yellowstone Association, Grand Teton National Park, Wyoming. (October 5, 2016).
- 2015 Ranapathi Arachchige, D. (Presenter & Author), **Vandenberg, G.** (Co-Author), Annual Meeting of the Association of American Geographers, "Mapping Flashflood Potential Using GIS and the Flash Flood Potential Index in the Turtle River and Forest River Watersheds, North Dakota," Association of American Geographers, Chicago, IL. (April 23, 2015).
- VanLooy, J. (Presenter & Author), **Vandenberg, G.** (Co-Author), Annual Meeting of the Association of American Geographers, "Continental Glacier Meltwater Dynamics in the Northern Wind River Range, Wyoming," Association of American Geographers, Chicago, IL. (April 22, 2015).
- Vandenberg, G.** (Presenter & Author), VanLooy, J. (Co-Author), Annual Meeting of the Association of American Geographers, "Geochemistry of Continental Glaciers Meltwater in the Northern Wind River Range, Wyoming," Association of American Geographers, Chicago, IL. (April 22, 2015).
- 2014 **Vandenberg, G.** (Presenter & Author), Dixon, C. (Co-Author), Vose, B. (Co-Author), Fisher, M. (Co-Author), Annual Meeting Association of American Geographers, "Spatial Assessment of Water Quality in the Vicinity of Swine CAFOs in the Upper Devils Lake Basin, North Dakota," Association of American Geographers, Tampa, Florida. (April 10, 2014).
- 2013 **Vandenberg, G.S.** (Presenter & Author), VanLooy, J. (Co-Author), Miege, C. (Co-Author), Butz, D. (Co-Author), Annual Meeting Association of American Geographers, "Glacial Melt Water Dynamics in the Northern Wind River Range, Wyoming," Association of American Geographers, Los Angeles. (April 10, 2013).
- VanLooy, J. (Presenter & Author), Forster, R. (Co-Author), Miege, C. (Co-Author), **Vandenberg, G.S.** (Co-Author), Annual Meeting Association of American Geographers, "Calculating ice volume and estimating remaining "life span" of Continental Glaciers, Wyoming using ice penetrating radar and surface elevation data," Association of American Geographers, Los Angeles, California. (April 10, 2013).
- 2012 Dinger, M. (Co-Author), **Vandenberg, G.S.** (Presenter & Author), Applied Geography Conference, "Use of Terrain Models in Geographic Information System to Identify Landscape Erosion in the Upper Devils Lake Basin, North Dakota," Minneapolis, Minnesota. (October 11, 2012).

- 2011 **Vandeberg, G.S.** (Presenter & Author), Dixon, C. (Co-Author), Vose, B. (Co-Author), 2011 AAG Annual Meeting, "Water and Sediment Quality Adjacent to Swine Feeding Operations in the Vicinity of Lake Alice National Wildlife Refuge, North Dakota," Association of American Geographers, Seattle, Washington. (April 14, 2011).
- 2009 Rundquist, B.C. and **G.S. Vandeberg**. "Fully Engaging Students in the Remote Sensing Process through Field Experience". Paper presented at the Annual Meeting of the Association of American Geographers, Las Vegas, NV (March 25).
- 2008 **Vandeberg, Gregory S.**, Cami Dixon, Sherry Anderson and Brian Vose. "Temporal and Spatial Variations of Surface Water Quality in the Vicinity of Lake Alice National Wildlife Refuge, North Dakota". Paper presented at the Association of American Geographers Annual Meeting, Boston, MA (April 15-19).
- 2007 **Vandeberg, Gregory S.** "Climatic Change and Geomorphic Processes." Paper presented at the National Council for Geographic Education Annual Meeting, Oklahoma City, OK (October 18-21).
- 2006 **Vandeberg, G.S.** "Characterization and Reclamation of Hardrock Mining and Smelting Sites in Montana, U.S.A." Invited lecture for Faculty of Environment, Earth and Resources, University of Manitoba, Canada. Title: (March 10).
- 2005 Brookman, B.P., B.C. Rundquist, **G.S. Vandeberg** and D.A. Brookman. "Investigating Climatological Variability of Ice Jams Along the Red River of the North, North Dakota." Paper presented at the Applied Geography Conference, Washington, D.C. (November 2-5).
- Neuman, D.R., **G.S. Vandeberg**, P.B. Blicher, S.R. Jennings and K. Ford. "Phytostabilization of acid metalliferous mine tailings at the Keating Site in Montana." Paper presented at the Annual Meeting of the American Society of Mining and Reclamation, Breckenridge, CO (June).
- Vandeberg, G.S.**, C.W. Martin and G.M. Pierzynski. "Modeling of Heavy Metal Distribution in an Intermontane Gravel Bed Stream." Paper presented at the Annual Meeting of the Association of American Geographers, Denver, CO (April 8).
- 2004 **Vandeberg, G.S.**, C.W. Martin and G.M. Pierzynski. "The Distribution of Heavy Metals in Floodplain Sediments of a Northern Rocky Mountain Gravel Bed Stream." Paper presented at the Annual Meeting of the Association of American Geographers, Philadelphia, PA (March).

2003 **Vandeberg, G.S.**, C.W. Martin and G.M. Pierzynski. "The Distribution of Heavy Metals in Floodplain Soils of the Upper Blackfoot River, Montana." Paper presented at the Annual meeting of the Association of American Geographers, New Orleans, LA (March).

Vandeberg, G.S. 2003. "Identification and Characterization of Mining Waste Using Landsat Thematic Mapper Imagery, Cherokee County, Kansas." Paper presented at the 20th National Conference of the American Society of Mining and Reclamation and the 9th Billings Land Reclamation Symposium, Billings, MT (June 3-6).

2001 **Vandeberg, G.S.**, S.R. Jennings, D.R. Neuman and M.K. Reeves. "Delineation of an Outer Boundary for a Superfund Site Near Anaconda, Montana." Poster presented at the Annual Meeting of the Association of American Geographers, New York, NY (February 27 -March 3).

Regional

2022 **Vandeberg, G.** (Panelist), Panel Discussion, "Putting the Puzzle Together: Interdisciplinary Research to Advance the Energy and Environmental Sustainability Grand Challenge," Research and Economic Development/College of Engineering and Mines, University of North Dakota, Grand Forks, ND. (January 21, 2022).

2020 **Vandeberg, G.** (Presenter & Author), VanLooy, J. (Co-Author), Franklin Club Monthly Meeting, "Chasing Ice: Glacier Research in the Wind River Range, Wyoming," Franklin Club, Grand Forks, North Dakota. (February 20, 2020).

Ryckman, M. D. (Presenter & Author), Darby, B. (Co-Author), **Vandeberg, G.** (Co-Author), Kemink, K. (Co-Author), Ellis-Felege, S. (Co-Author), The North Dakota Chapter of the Wildlife Society, "Behavioral Responses of Nesting Ducks to Unmanned Aircraft Vehicles (UAVs)," The North Dakota Chapter of the Wildlife Society, Mandan, ND. (February 14, 2020).

2019 **Vandeberg, G.** (Presenter & Author), Patel, N. (Co-Author), 2019 North Dakota Geospatial Summit, "Use of Landsat Satellite Imagery to Identify the Salinization of Soil Due to Brine Spills in Northwestern North Dakota," 2019 North Dakota Geospatial Summit Planning Committee, Bismarck, North Dakota. (October 23, 2019).

Barnas, A. F. (Presenter & Author), Darby, B. (Author Only), **Vandeberg, G.** (Author Only), Rockwell, R. F. (Author Only), Ellis-Felege, S. (Author Only), North Dakota EPSCOR, "Evaluating Drone Imagery for Researching a Sub-Arctic Ecosystem: A Snow Goose Case Study," Fargo, ND. (March 27, 2019).

- 2018 Wetherholt, W. A. (Co-Author), **Vandenberg, G.** (Presenter & Author), Annual Meeting Great Plains-Rocky Mountain Division American Association of Geographers, "Changes in the Landscape of a Northern Plains Town: Antler, North Dakota 1900 to 2018," Kansas State University, Manhattan, Kansas. (October 6, 2018).
- 2017 **Vandenberg, G.**, Burow, D. (Co-Author), Amor, J. (Co-Author), Engelmann, K. (Co-Author), Annual Meeting of the American Association of Geographers Great Plains and Rocky Mountain Division, "Estimation of Peak Flood Levels of the Red River of the North Based on Tree Scar Elevations Near Grand Forks, ND," American Association of Geographers, Grand Forks, North Dakota. (October 14, 2017).
- Patel, N. (Presenter & Author), **Vandenberg, G.** (Co-Author), Rundquist, B. (Co-Author), Annual Meeting of the American Association of Geographers Great Plains and Rocky Mountain Division, "Understanding and Measuring Anthropogenic Soil Salinity in Brine Spill Impacted Farmlands Of Bottineau County, North Dakota, Using Multitemporal Landsat Data," American Association of Geographers, Grand Forks, North Dakota. (October 14, 2017).
- Todhunter, P. E., Flynn, D. (Author Only), Rundquist, B. (Author Only), **Vandenberg, G.** (Author Only), Wang, E. (Author Only), Annual Meeting, Great Plains/Rocky Mountain Division, "Why Grand Forks Recovered so Effectively from the 1997 Flood Disaster: Multi-layered Recovery, Basic Principles, and Unique Particulars.," American Association of Geographers, Grand Forks, ND. (October 14, 2017).
- Patel, N. N. (Co-Author), **Vandenberg, G.** (Presenter & Author), Rundquist, B. (Co-Author), North Dakota GIS Users Conference, "Multitemporal Landsat Data Analysis of Brine Spill Impacted Farmlands of Bottineau County, North Dakota," North Dakota GIS Technical Committee, Bismarck, North Dakota. (September 19, 2017).
- 2016 **Vandenberg, G.** (Presenter & Author), VanLooy, J., Greater Yellowstone Ecosystem Glacier Monitoring Workshop, "Wind River Glaciers Monitoring: Water Resources and Quality," U.S. Forest Service, Bozeman, MT (via video conference). (May 9, 2016).
- VanLooy, J. (Presenter & Author), **Vandenberg, G.** (Author Only), The Nature Conservancy Monthly Meeting, "Late Summer Streamflow Contributions from Glacial Meltwater in the Wind River Range, Wyoming," The Nature Conservancy, Lander, WY. (December 6, 2016).

- 2015 **Vandeberg, G.** (Presenter & Author), VanLooy, J. (Co-Author), Annual Meeting of the Prairie Division of the Canadian Association of Geographers, "Continental Glacier Meltwater Contributions to Late Summer Stream Flow and Stream Nutrient Levels in Northern Wind River Range, Wyoming," Prairie Division of the Canadian Association of Geographers, Kenora, Ontario. (September 26, 2015).
- 2014 Dando, W. A. (Presenter & Author), **Vandeberg, G.** (Co-Author), Bauer, K. (Co-Author), Annual Meeting of the Indiana Council for the Social Studies, "Israel: The Physical and Human Geography of the Past Imprinting Modern Israel Today," Indiana Council for the Social Studies, Indianapolis, Indiana. (November 14, 2014).
- Thalacker, R. J. (Co-Author), **Vandeberg, G.** (Presenter & Author), Annual Meeting Prairie Division of the Canadian Association of Geographers, "Mapping Techniques for Soil Erosion: Modeling of Stream Power Index in Eastern North Dakota Using LiDAR Data," Canadian Association of Geographers, Riding Mountain National Park, Manitoba, Canada. (September 27, 2014).
- 2013 Thalacker, R.J. and **Vandeberg, G.S.** Great Plains/Rocky Mountain Annual Meeting 2013, Association of American Geographers. "Mapping Techniques and Comparisons of Soil Erosion Modeling: Identifying Critical Erosion Areas in Agricultural Fields Using Digital Terrain Analysis". University of Nebraska, Omaha. (October 11, 2013).
- Dinger, M. (Co-Author), **Vandeberg, G.** (Presenter & Author), Red River Basin Water Quality and Watershed Monitoring Meeting, "Use of the Stream Power Index Terrain Model to Identify Landscape Erosions in the Upper Devils Lake Basin, ND," North Dakota Department of Health, Energy and Environmental Research Center, Grand Forks, North Dakota. (April 30, 2013).
- 2011 Dinger, M. J. (Presenter & Author), **Vandeberg, G.** (Co-Author), West Lakes Division Annual Meeting, "Identifying locations of highly eroded agricultural land in the Devils Lake Basin, North Dakota using GIS terrain analysis modeling," Association of American Geographers, Chicago, IL. (November 11, 2011).
- 2009 Vandeberg, G. C. Dixon, C. and B. Vose. "Spatial Distribution of Trace Elements and Nutrients in the Vicinity of Lake Alice NWR". Paper presented at West Lakes Division Annual Meeting of the Association of American Geographers, St. Paul, MN. (October 30).
- Coomansingh, J., D. Lanegran, **G. Vandeberg** and J. Van Looy. "Panel: The Situation with Geographic Education in the United States," Panel Discussion at West Lakes Division Annual Meeting of the Association of American Geographers, St. Paul, MN Macalester College. (October 31).

- 2008 **Gregory S. Vandenberg**, Mark Blore, Brooks Hansen, Cami Dixon and Brian Vose. "Surface Water Quality in the Vicinity of Lake Alice National Wildlife Refuge, ND". Paper presented at the Annual Meeting of the Association of American Geographers Great Plains – Rocky Mountain Division, and ASPRS Upper Midwest Chapter, Grand Forks, ND (September 12-13).
- Mark Blore and **Gregory Vandenberg**. "Concentrated Animal Feeding Operations in the Devils Lake Basin, ND and Their Effect on Water Quality". Poster presented at the Annual Meeting of the Association of American Geographers Great Plains – Rocky Mountain Division, and ASPRS Upper Midwest Chapter, Grand Forks, ND (September 12-13).
- Brooks E. Hansen and **Gregory S. Vandenberg**. "Land Cover and Land Use in the Vicinity of Lake Alice National Wildlife Refuge". Poster presented at the Annual Meeting of the Association of American Geographers Great Plains – Rocky Mountain Division, and ASPRS Upper Midwest Chapter, Grand Forks, ND (September 12-13).
- 2007 Lindstrom, Jim C. and **Gregory S. Vandenberg**. "Recreation Use Characteristics of the Maah Daah Hey Trail." Poster presented at the Great Plains/Rocky Mountain Division of the Association of American Geographers Annual Meeting, Denver, CO (September 28-29).
- Munski, Laura B., **Gregory Vandenberg**, Douglas C. Munski, William Wetherholt, and Darrel Nucech. "Diffusing and Expanding the Learning of Geospatial Technologies for Targeted Populations in the 2006-07 Cycle of NDView Geographic Education Programming." Poster presented at the Prairie Division, Canadian Association of Geographers Annual Meeting, Weyburn, Saskatchewan (September 28-30).
- 2006 Munski, Laura B., Douglas C. Munski and **Gregory S. Vandenberg**. "K-12 Educators Plus Geospatial Technologies Equals NDView Summer Workshop". Paper presented at 30th Annual meeting of the Prairie Division of the Canadian Association of Geographers, Rugby, ND (September 30).
- G.S. Vandenberg**, C.W. Martin and G.M. Pierzynski. "Modeling of the distribution of trace elements in floodplain soils of the upper Blackfoot River, Montana." Paper presented at the 10th Billings Land Reclamation Symposium, Billings, MT (June 5).
- 2005 **Vandenberg, G.S.** "Reconstruction of Glacial Lake Tom Miner, a Proglacial Lake of the Northern Yellowstone Outlet Glacier, Using a Geographic Information System." Paper presented at the Annual Meeting of the Great Plains/Rocky Mountain Division of the Association of American Geographers, Laramie, WY (September 24).

- 2003 **Vandenberg, G.S.**, C.W. Martin and G.M. Pierzynski. "Heavy Metal Levels in Floodplain Soils of the Blackfoot River, A Tributary of the Clark Fork River, Montana." Poster presented at the Center for Riverine Science and Re-Naturalization 2003 Conference Assessing and Re-naturalizing Streams Impacted by Mining, Missoula, MT (September 25-26).
- 2002 **Vandenberg, G.S.** "Spatial Analysis of Soil Metal Levels from Anaconda, Montana." Paper presented at the annual meeting of the Great Plains/Rocky Mountain Division of the Association of American Geographers, Missoula, MT (October).
- De Bres, K., K. Blake, J. Coomansingh, P. Mannion and **G. Vandenberg**. "Survival of the Fittest: Teaching Techniques for Large Lecture Classes." Panel discussion at the annual meeting of the Great Plains/Rocky Mountain Division of the Association of American Geographers, Missoula, MT (October).
- 2000 **Vandenberg, G.S.**, D.J. Dollhopf, D.R. Neuman, P.D. Smith, W. Bluck and S. Brown. "Time critical removal action in response to contaminated soils along the eastside ditch near Deer Lodge, Montana." Poster presented at the Clark Fork Symposium, Missoula, MT (April).
- Vandenberg, G.S.**, D.J. Dollhopf, J. Goering and D.R. Neuman. "Evaluation of Ferric Oxide for Adsorption of Arsenic Leaching from a Mine Waste Repository." Paper presented at Billings Land Reclamation Symposium 2000, Billings, MT (June).
- 1999 **G.S. Vandenberg**, J. Goering, D.R. Neuman and S.R. Jennings. "Water balance for reclaimed and unreclaimed mining wastes near Anaconda, Montana: a comparison." Poster presented at the annual meeting of the Rocky Mountain Section of the Geological Society of America, Pocatello, ID (April).
- 1990 **Vandenberg, G.S.** and W.W. Locke. "Interaction of Pinedale-Equivalent Valley Ice in the Tom Miner Basin, Montana with the Northern Yellowstone Outlet Glacier." Paper presented at the annual meeting of the Rocky Mountain Section of the Geological Society, Jackson, WY (May).
- 1989 **Vandenberg, G.S.** and W.W. Locke. "Temporal and Spatial Relationships of Late Quaternary Valley Ice in the Tom Miner Basin, Montana with the Northern Yellowstone Outlet Glacier." Paper presented at the annual meeting of the Cordilleran and Rocky Mountain Sections of the Geological Society of America, Spokane, WA (May).

State/Local

2017 Patel, N. N. (Co-Author), **Vandenberg, G.** (Presenter & Author), Rundquist, B. (Co-Author), North Dakota GIS Users Conference, "Multitemporal Landsat Data Analysis of Brine Spill Impacted Farmlands of Bottineau County, North Dakota," North Dakota GIS Technical Committee, Bismarck, North Dakota. (September 19, 2017).

Amor, J. (Presenter & Author), Jensen, W. F. (Co-Author), Newman, R. (Co-Author), **Vandenberg, G.** (Co-Author), Goodwin, B. (Co-Author), Rundquist, B. (Co-Author), Boulanger, J. (Co-Author), UND Graduate Research Achievement Day, "An evaluation of elk movements in North Dakota," University of North Dakota, Grand Forks, ND. (March 2, 2017).

Amor, J. M. (Presenter & Author), Jensen, W. F. (Co-Author), Newman, R. (Co-Author), **Vandenberg, G.** (Co-Author), Rundquist, B. (Co-Author), Boulanger, J. (Co-Author), An evaluation of elk movements in the Great Plains, "An evaluation of elk movement and habitat selection in North Dakota," North Dakota Chapter of The Wildlife Society, Mandan, North Dakota. (February 9, 2017).

2016 VanLooy, J., **Vandenberg, G.** (Presenter & Author), Radio Interview Main Street Program, "UND Professors Talk on Glacier Study in Wyoming," Prairie Public Radio, North Dakota. (March 1, 2016).

2015 Ranapathi Arachchige, D. J. P. (Co-Author), **Vandenberg, G.** (Presenter & Author), 2015 North Dakota GIS Users Conference, "Mapping Flashflood Potential in the Turtle and Forest River Basins, North Dakota Using GIS," North Dakota Geographic Information Systems, Fargo, North Dakota. (September 28, 2015).

Hill, R. (Panelist), Meyer, M. (Panelist), **Vandenberg, G.** (Panelist), Chairs Leadership Meeting, "Outcomes-Based Meetings," Provost Office, University of North Dakota, Grand Forks, North Dakota. (February 25, 2015).

2014 VanLooy, J. (Presenter & Author), **Vandenberg, G.** (Presenter & Author), Geography Awareness Week Film Presentation: Chasing Ice, "Expeditions in America's Backyard: Glacial Research in the Wind River Range, Wyoming," Department of Geography, University of North Dakota, Grand Forks, North Dakota. (November 18, 2014).

*Thalacker, R. (Presenter & Author), **Vandenberg, G.** (Co-Author), ND EPSCoR/IDeA 2014 State Conference, "Mapping Techniques for Soil Erosion: Modeling Stream Power Index Using High Resolution LiDAR Datasets in the Red River Valley of North Dakota," ND EPSCoR, Grand Forks, North Dakota. (April 29, 2014).

Vandenberg, G. (Presenter & Author), Dixon, C. (Co-Author), Vose, B. (Co-Author), Fisher, M. (Co-Author), Geography Department Forum, "Spatial

- Assessment of Water Quality in the Vicinity of Swine CAFOs in the Upper Devils Lake Basin, North Dakota," Department of Geography, University of North Dakota, Grand Forks, North Dakota. (April 16, 2014).
- 2013 Thalacker, R. J. (Presenter & Author), **Vandeberg, G.S.** (Co-Author), North Dakota GIS Users Conference, "Mapping Techniques and Comparisons of Soil Erosion in Grand Forks, Nelson and Walsh Counties, ND, Using Digital Elevation Models Generated from Airborne LiDAR and Structure from Motion with Digital Camera Images," Department of Geography, University of North Dakota, Grand Forks, North Dakota. (September 10, 2013).
- VanLooy, J. (Presenter & Author), **Vandeberg, G.S.** (Presenter & Author), Forum for Contemporary Geographic Issues, "Ice Volume Changes and Melt Water Dynamics of the Continental Glacier, Northern Wind River Range, Wyoming," Department of Geography, University of North Dakota, Grand Forks, North Dakota.(January 9, 2013).
- 2012 **Vandeberg, G.** (Presenter & Author), Dinger, M. (Co-Author), Proposal Presentation ND Department of Health, "Terrain Analysis of Upper Devils Lake Basin," North Dakota Dept. Health, Fargo, North Dakota. (May 10, 2012).
- Vandeberg, G.** (Presenter & Author), 2012 ND Water Quality Conference, "Water Quality Trends of the Upper Devils Lake Basin in the Vicinity of Lake Alice National Wildlife Refuge," ND Department Health, ND Water Commission, USGS, Bismarck, ND. (February 29, 2012).
- Vandeberg, G.** (Presenter & Author), U.S. Fish and Wildlife Service Lake Alice Update, "Water Quality Trends of the Upper Devils Lake Basin in the Vicinity of Lake Alice National Wildlife Refuge, North Dakota," U.S. Fish and Wildlife Service, Devils Lake, ND. (February 22, 2012).
- 2011 Dinger, M. J. (Presenter & Author), **Vandeberg, G.** (Co-Author), North Dakota GIS Users Conference, "Identifying Locations of Highly Eroded Areas Using GIS Terrain Analysis, Devils Lake, ND," State of North Dakota, Univ. North Dakota, USGS, Grand Forks, ND. (October 12, 2011).
- Vandeberg, G.** (Co-Author), Dixon, C. (Presenter & Author), Vose, B. (Co-Author), Annual Meeting, "Monitoring of Water and Sediment Quality Adjacent to Swine Feeding Operations in the Vicinity of Lake Alice National Wildlife Refuge, North Dakota," North Dakota Chapter of the Wildlife Society, Mandan, North Dakota. (February 10, 2011).
- 2010 Vandeberg, G., C. Dixon and B. Vose. "Water Quality Monitoring at Lake Alice National Wildlife Refuge, ND". Paper presented at North Dakota Chapter, The Wildlife Society, Minot, ND. (February 12).

2009 Vandenberg, G., "Department of Geography: Programs". Paper presented at North Dakota GIS Users Conference Grand Forks, ND. (November 3).

Mark Blore, **Gregory S. Vandenberg**, Cami Dixon and Brian Vose. "Concentrated Animal Feeding Operations in the Devils Lake Basin, ND and Their Effect on Water Quality". Poster presented at the Annual Meeting of the North Dakota Chapter of the Wildlife Society, Mandan, ND (February 13).

2008 Munski, Laura B., **Gregory Vandenberg**, Douglas C. Munski, William Wetherholt and Darrel Nucech. "Teaching Geospatial Technologies in the 2007 NDView Geographic Education Outreach Program". Paper presented at the North Dakota Academy of Science Annual Meeting, Grand Forks, ND (April).

Wetherholt, William, Douglas C. Munski and **Gregory Vandenberg**. "Using Repeat Photography for an Analysis of Change in Antler, North Dakota". Paper presented at the North Dakota Academy of Science Annual Meeting, Grand Forks, ND (April).

Lindstrom, James and **Gregory Vandenberg**. "Recreation Use Characteristics of the Maah Daah Hey Trail". Paper presented at the Graduate School 2008 Scholarly Forum, University of North Dakota, Grand Forks, ND (February 11-12).

Nucech, Darrel and **Gregory Vandenberg**. "Geographic Variables Affecting Nest Locations of Bald Eagles (*Haliaeetus Leucocephalus*) in the Red River Valley of Minnesota and North Dakota." Poster presented at the Graduate School 2008 Scholarly Forum, University of North Dakota, Grand Forks, ND (February 11-12).

2007 **Gregory Vandenberg**. "The Use of Geographic Information Systems in Environmental Investigations." Invited lecture Soil Science Seminar, Dept. of Soil Science, North Dakota State University. (September 26).

Munski, Laura, **Gregory Vandenberg** and Douglas Munski. "Expanding Geospatial k-12 Education into North Dakota's Devils Lake Region." North Dakota View Conference, Belcourt, ND.

2006 Johnston, Josh and **Gregory Vandenberg**. "Geographic Variables Affecting Bald Eagle (*Haliaeetus leucocephalus*) Nesting in the Red River Valley of Minnesota and North Dakota." North Dakota View Conference, Fort Yates, ND (August).

Munski, Laura B., Douglas C. Munski and **Gregory S. Vandenberg**. "K-12 Educators Plus Geospatial Technologies Equals NDView Summer Workshop".

Paper presented at 30th Annual meeting of the Prairie Division of the Canadian Association of Geographers, Rugby, ND (September 30).

- 2005 **Vandenberg, Gregory S.**, Charles W. Martin and Gary M. Pierzynski. "Trace Elements in Floodplain Soils of the Blackfoot River, Montana." Poster presented at the annual meeting of the North Dakota Soil and Water Conservation Society, Jamestown, ND (August 10).

Pang, Brandee P., Bradley C. Rundquist, **Gregory S. Vandenberg** and David A. Brookman. "Ice Jams Along the Red River of the North, North Dakota." Poster presented at Graduate School Scholarly Forum, University of North Dakota, Grand Forks, ND (February 22).

INVITED LECTURES

- 2016 **Vandenberg, G.**, 47th Annual South Dakota State Geography Convention, "Water Resources and Impacts: Examples from Rocky Mountain Glaciers to Central Lowland Prairies," South Dakota State Geography Club, Brookings, South Dakota. (March 18, 2016).

- 2014 Invited Lecture, **Vandenberg, G.** (Presenter & Author), VanLooy, J. (Co-Author), Miede, C. (Co-Author), Forester, R. R. (Co-Author), University of Regina, Geographic Research Seminar, "Ice Volume Estimation Inferred from Ice Thickness and Surface Measurements for Continental Glacier, Wind River Range, Wyoming," Department of Geography and Environmental Studies, University of Regina, Saskatchewan. (September 30, 2014).

Guest Lecture, Center for Instructional Learning and Technology (May 20, 2014)

Guest Lecture, Earth System Science and Policy 502: Fluvial Systems (March 26, 2014)

- 2013 Guest Lecture, Earth System Science and Policy 502: Contamination of fluvial systems (January 29, 2013).

- 2012 Guest Lecture, Earth System Science and Policy 502: Water Quality in Upper Devils Lake Basin (April 23, 2013).

- 2011 Guest Lecture, Presentation to ESSP 502 on Water Quality in Upper Devils Lake Basin (January 31, 2011).

- 2009 Guest Lecture, Department of Aviation Title: Advanced Airport Operations and Management Course on GIS

- 2008 Guest Lecture, Geography 501 Class. (September 17, 2008).

- 2007 Guest Lecture. Soil Science Seminar, Dept. of Soil Science, North Dakota State University. Title: "The Use of Geographic Information Systems in Environmental Investigations." (September 26, 2007).
- 2006 Guest Lecture, Faculty of Environment, Earth and Resources, University of Manitoba, Canada. Title: "Characterization and Reclamation of Hardrock Mining and Smelting Sites in Montana, U.S.A." (March 10, 2006).
- 2005 Guest Lecturer, Division of Social Sciences, Minot State University, ND. Title: "The Impact of Mining on the Western Landscape: Examples from North Dakota, Kansas and Montana." (November 29, 2005).
- Guest Lecturer, English Department, Introduction to Editing Class (ENGL 417) University of North Dakota, Grand Forks, "Question and answer period on technical report writing." (October 18, 2005).
- 2003 Guest Lecturer, Department of Geography, Kansas State University, Manhattan, KS. Title: "Environmental Consequences of Metal Mining in the U.S." (February 2003).
- 2002 Guest Lecturer, Department of Geography, Kansas State University, Manhattan, KS. Title: "Metal Mining and Smelting in U.S.: Views of Resource Extraction and Environmental Consequences." (February 2002).
- 2000 GTU Brown Bag Seminar Series. Department of Geography, Kansas State University, Manhattan, KS. Title: "Deer Lodge, Montana: The Impact of Mining on a Residential Community." (October 2000)
- 1994 Guest Lecturer, 61st Annual Water School for Water and Wastewater Operations, Sponsored by Montana State University Water Resources Center and College of Engineering, and Montana Department of Health and Environmental Science, Bozeman, MT. Title: "Treatment and Movement of Ground Water Contamination." (September 1994).
- 1993 Guest Lecturer, Public Meeting Sponsored by the Underground Storage Tank Program and Water Quality Bureau, Montana Department of Health and Environmental Science; and Chen-Northern, Inc., Lincoln, MT. Title: "Investigations of Petroleum-Contaminated Groundwater and Soil, Lincoln, MT." (December 1993).
- Guest Lecturer, Water School Sponsored by Montana Environmental Training Center and Montana Department of Health and Environmental Science, Miles City, MT. Title: "Montana Leaking Underground Storage Tank Program (LUST) and Case Studies of Petroleum-Contaminated Ground Water." (March 1993).
- 1992 Guest Lecturer, Annual Meeting, Montana Water Quality Association, Great Falls, MT. Title: "Protection of Domestic Water Supplies from Petroleum-Contaminated Groundwater." (September 1992).

Guest Lecturer, Groundwater Protection and Training Seminar Sponsored by Montana Environmental Training Center and Montana Department of Health and Environmental Science, Montana Tech, Butte, MT. Title: "Groundwater Contamination in Montana." (June 1992).

Guest Lecturer, Seminar on Environmental Assessment of Real Property Sponsored by Montana Independent Bankers and Matney-Frantz Engineering, P.C., Bozeman, MT. Title: "I Have an Underground Storage Tank, What Do I Do" (May 1992).

GRANTS, CONTRACTS AND AWARDS

- 2022 Rundquist, B. (Principal), Vandeberg, G. (Co-Principal), "Stateview Program Development and Operations for the State of North Dakota," Sponsored by AmericaView, Other, \$23,500.00. (August 1, 2022 - September 17, 2023).
- 2021 Rundquist, B. (Principal), Vandeberg, G. (Co-Principal), "StateView Program Development and Operations for the state of North Dakota," Sponsored by AmericaView, Other, \$23,500.00. (September 18, 2021 - September 17, 2022).
- 2020 Rundquist, B. (Principal), Vandeberg, G. (Co-Principal), "StateView Program Development and Operations for the state of North Dakota," Sponsored by AmericaView, Other, \$23,500.00. (September 18, 2020 - September 17, 2021).
- 2019 Rundquist, B. (Principal), Vandeberg, G. (Co-Principal), "Stateview Program Development and Operations for the State of North Dakota," Sponsored by AmericaView, Other, \$23,500.00. (September 18, 2019 - December 18, 2020).
- 2018 Lim, Y. H. (Principal), Gerla, P. (Co-Principal), Mahmood, T. (Co-Principal), VanLooy, J. (Co-Principal), Vandeberg, G. (Co-Principal), Todhunter, P. (Supporting), "MRI: Acquisition of an Acoustic Doppler Current Profiler (ADCP) System for Profiling Open Channels," Sponsored by National Science Foundation, Federal, \$105,520.00. (October 1, 2018 - 2020).
- 2017 Kubatova, Alena (Principal), S. Nelson, D. Pedersen, R. Simmons and G. Vandeberg (Co-PI's), "US MASTER II: Expressive Mentoring & Interdisciplinary Research for Undergraduate Success in STEM", Sponsored by National Science Foundation, Federal, \$999,475. (2017-2023).
- 2016 Vandeberg, G. (Principal), VanLooy, J. (Co-Principal), Gerla, P. (Co-Principal), "REU Site: The Environmental Impacts of the Changing Cryosphere on Water Resources of the Wind River Basin and Northern Plains," Sponsored by National Science Foundation, Federal, \$455,149. (Submitted August 22, 2016 – not funded).

- VanLooy, J. (Principal), Vandenberg, G. (Co-Principal), "Analysis of Glacial Locations following Criteria for Proposed Benchmark Glaciers in the Greater Yellowstone Ecosystem," Sponsored by US Forest Service and National Park Service, Federal, \$11,000. (2016-present).
- Kubatova, Alena (Principal), S. Nelson, D. Pedersen, R. Simmons and G. Vandenberg (Co-PI's), "US MASTER II: Expressive Mentoring & Interdisciplinary Research for Undergraduate Success in STEM", Sponsored by National Science Foundation, Federal, \$999,475. (Submitted May 16, 2016 – not funded).
- Vandenberg, G. (Co-Principal), Rundquist, B. (Co-Principal), "Replacement Computer Equipment for Geographic Analysis and Remote Sensing Lab," Sponsored by Arts and Sciences Student Technology Funding, The University of North Dakota, \$45,995. (Submitted February 8, 2016 – not funded).
- 2015 Vandenberg, G. (Principal), Engelmann, K. (Co-Principal), "Fellowship: Enhanced Natural Wetland Growth Due to Nearby Constructed Wetlands in the Northern Prairie Pothole Region," Sponsored by North Dakota Water Resources Research Institute, State, \$3,000. (Submitted November 23, 2015 – not funded).
- 2014 Vandenberg, G. (Co-Principal), Perera, D. (Co-Principal), "Fellowship: Flash Flood Potential Mapping Using GIS and Flash Flood Potential Index (FFPI) in Turtle River and Forest River watersheds, North Dakota," Sponsored by North Dakota Water Resources Research Institute, State, \$1,900.
- Vandenberg, G. (Principal), "Seed Grant: Characterizing contributions of glacier melt to upper Wind River Basin, Wyoming and Impact of Climate Change," Sponsored by University of North Dakota Faculty Seed Grant, The University of North Dakota, \$28,796.80.
- Vandenberg, G. (Co-Principal), Rundquist, B., "Replacement Computers and Plotter for Geographic Analysis and Remote Sensing Lab," Sponsored by College of Arts and Sciences, The University of North Dakota, \$56,631
- Vandenberg, G., "SSAC Travel Grant: AAG Annual Meeting 2014," Sponsored by Senate Scholarly Activities Committee, The University of North Dakota, \$393.
- 2013 Vandenberg, G. (Principal), Thalacker, R. (Co-Principal), "Fellowship: Mapping Techniques for Soil Erosion, Using Digital Camera LiDAR and GIS," Sponsored by North Dakota Water Resources Research Institute, State, \$3,000 (March 1, 2013 - February 28, 2014).
- Vandenberg, G. (Principal), "Travel Grant to AAG Meeting, Los Angeles, CA," Sponsored by Senate Scholarly Activities Committee, The University of North Dakota, \$391. (January 29, 2013 - June 30, 2013).

- 2012 Computer Upgrades for Geographic Analysis and Remote Sensing Lab (GARSL) Room 116 O'Kelly Hall. Sponsored by Student Technology Fee Committee, College of Arts and Sciences, The University of North Dakota, (Co-P.I. with Bradley Rundquist) \$19,126.
- ND EPSCoR Small Award," Sponsored by ND EPSCOR, (P.I.), \$2,200.
- 2011 Undergraduate Studies with Environmentally Oriented Education. National Science Foundation S-STEM Award No. 1060183 (Co-P.I. with Alena Kubotova, Rebecca Simmons, Brett Goodwin, Ryan Zerr), \$598,110.
- Multi-Disciplinary Study of the Devils Lake Basin as a Coupled Natural-Human System. Office of Vice President for Research and Economic Development, University of North Dakota. (Co-P.I. with Curt Stofferahn and Paul Todhunter). \$57,100.
- Senate Scholarly Activities Committee Travel Grant. University of North Dakota. \$380.
- 2009 Characterization of Water and Sediment Quality of Lake Alice National Wildlife Refuge. Project and Budget Modification to Agreement Number 601818J414. U.S. Fish and Wildlife Service (P.I.), additional \$5,000.
- Trimble Juno SB Handheld GPS Units and Terrasync Software. Office of Instructional Development Grant, University of North Dakota, (Co-P.I. with Lance Yarbrough, Geology and Geological Engineering). \$3,495.
- 2008 Characterization of Water and Sediment Quality of Lake Alice National Wildlife Refuge (NWR), North Dakota. Agreement Number 601818J414. From 2008-2013. U.S. Fish and Wildlife Service (P.I.), \$5,000.
- Student Technology Fee Award #91008 for upgrade of Geography Department Computer Lab (with B. Rundquist), \$17,580.
- ND EPSCoR Advanced Undergraduate Research Awards Program (P.I.), \$7,500.
- ND EPSCoR Equipment Award (P.I.), \$2,075.
- 2007 Characterization of Water and Sediment Quality of Lake Alice National Wildlife Refuge. U.S. Fish and Wildlife Service. (P.I.), \$20,000.
- Continuation of Geographic Variables Affecting Bald Eagle Nest Locations in the Red River Valley of North Dakota and Minnesota. North Dakota View. (PI.), \$3,600.

2006 Travel Grant. Senate Scholarly Activities Committee, University of North Dakota to present paper at the 10th Billings Land Reclamation Symposium, Billings, MT, \$247.

Lab Manual for Introduction to Geographic Information Systems. Office of Instructional Development Mini Grant, University of North Dakota, (P.I.) \$1,500.

Geographic Variables Affecting Bald Eagle (*Haliaeetus leucocephalus*) Nest Locations in the Red River Valley of North Dakota and Minnesota. North Dakota View. (PI.) \$7,446.

Smart Room Equipment for Geographic Analysis Laboratory, Room 116 O'Kelly Hall. Student Technology Fee Award, University of North Dakota, (with B.C. Rundquist, D.C. Munski and D. Hansen), \$21,147.

Replacement Computers for the Geographic Analysis and Remote Sensing Lab (GARSL). Student Technology Fee Award, University of North Dakota (with B.C. Rundquist and D.C. Munski), \$8,505.

2005 Travel Grant. Senate Scholarly Activities Committee, University of North Dakota to present paper at the Association of American Geographers Meeting, Denver, CO., \$331.

PROFESSIONAL SERVICE

Manuscripts Reviewed

- *Catena*
- *Environmental Earth Sciences*
- *Environmental Monitoring and Assessment*
- *Environmental Pollution*
- *GeoCarto*
- *Geosciences Journal*
- *Journal of Applied Geography*
- *Journal of Environmental Protection*
- *Journal of Environmental Quality*
- *Journal of Geography*
- Journal article for researchers at University of Manitoba, Department of Geological Sciences
- Science of the Total Environment
- Transactions in GIS
- Water

Research Proposals Reviewed

- National Science Foundation, Geography and Regional Science Proposal (Spring 2008).

- Natural Sciences and Engineering Research Council of Canada Grant Application 357003-07 (Fall 2007).
- Montana Water Center U.S.G.S. 104b proposal (Fall 2006).

National Advanced Placement Exams Reviewed

- Educational Testing Service Advanced Placement Environmental Science Reader 2008-2010, 2014).

Professional Offices Held

- Occupation Expert for Geospatial Information Scientists and Technologists, U.S. Department of Labor. (October 29, 2013 - November 12, 2013).
- President, Beta Psi Chapter of Gamma Theta Upsilon, National Geography Honor Society, Kansas State University (2002).
- Vice-President, American Water Resources Association-Montana Section (1995-96).
- Secretary-Treasurer, American Water Resources Association-Montana Section (1994-95).

Professional Meetings

- Session Chair, American Association of Geographers, Great Plains/rocky Mountain Division, Grand Forks, ND (October 2017)
- Session Organizer with Jeff VanLooy and Dorothy Hall, American Association of Geographers. (April 22, 2015).
- Session Chair, North Dakota GIS Users Conference (September 2013).
- Student Poster Judging Coordinator, North Dakota GIS Users Conference (September 2013).
- Session Co-organizer, Association of American Geographers Annual Meeting, Los Angeles, CA (April 10, 2013).
- Program Organizer, North Dakota GIS Users Conference, Co-Chair 2011 State Conference. (January 2011 - November 2011).
- Session Chair, North Dakota GIS Users Conference. (October 12, 2011).
- Session Chair, Association of American Geographers. (April 14, 2011).
- Session Chair, North Dakota GIS Users Conference, Grand Forks, ND (November 3, 2009).
- Session Chair, Association of American Geographers West Lakes Division Annual Meeting, St. Paul, MN (October 30, 2009).
- Field trip organizer and leader, Annual Meeting of the Association of American Geographers, Great Plains – Rocky Mountain Division and ASPRS Upper Midwest Chapter, Grand Forks, ND (September 12-13, 2008).
- Session Moderator, Topics in Environmental Geography. Annual Meeting of the Association of American Geographers, Great Plains – Rocky Mountain Division and ASPRS Upper Midwest Chapter, Grand Forks, ND (September 12-13, 2008).
- Field trip organizer and leader, Canadian Association of Geographers, Prairie Division Annual Meeting, Rugby, ND (September 29-October 1, 2006).

- Session Moderator, Surface Water/Clark Fork Watershed Issues, Annual Meeting of the American Water Resources Association-Montana Section, War Bonnet Inn, Butte, MT (October 2-3, 1997).
- Session Moderator, Annual Meeting of the American Water Resources Association-Montana Section, Western Montana College of the University of Montana, Dillon, MT (October 3-4, 1996).
- Session Moderator, Annual Meeting of the American Water Resources Association-Montana Section, Montana State University, Bozeman, MT (October 1995).

UNIVERSITY/DEPARTMENTAL SERVICE

Department

- Environmental Studies B.A. and B.S. Curriculum development and revision, with Paul Todhunter and John Mihelich (2015-2016).
- Direct SOAR project for Geography Department (2015).
- Geography Awareness Week and GIS Day Co-organizer (2012-present).
- Committee Member, B.L. Wills and Virginia George Scholarships Committee. (October 2012 - present).
- STEM Week Co-Organizer with Dr. Munski for Geography & GISc Department (2016)
- Workshop Organizer, North Dakota State Science and Engineering Fair. (2014-present).
- Equipment list requests for Department (2008-present).
- Student Tech Fee Proposals for Department (2005-present).
- Preparer, Geog 454 Essential Studies Revalidation (September 10, 2013 - January 7, 2014).
- Preparer, Geog 121 Lab Essential Studies Revalidation. (September 2013 - December 2013).
- Preparer, Graduate Program Review for Geography Department. (November 2012 - December 23, 2013).
- Workshop Organizer, TRIO Upward Bound. (June 12, 2012).
- Co-Director of the Geographic Analysis and Remote Sensing Lab, Dept. of Geography (2008-present).
- Organized and handled publicity for GIS Day Activities at the University of North Dakota that included three outside speakers (2006).
- Faculty Advisor for Gamma Theta Upsilon Geography Club (2005-2008).
- Geography Department GTA Coordinator (2004-2008).
- Co-leader and Organizer, New Geography Graduate Students Field Trip (2005-2012).

College

- Arts and Sciences Strategic Plan Committee (2022-present)
- Arts and Sciences Council (2014-present).
- Arts and Sciences Curriculum Committee (2010-2013, 2022-present).

- Committee Member, History Program Review Committee, University of North Dakota. (May 2013 - December 2014).

University

- University Curriculum Committee (2017-2018)
- University Senate (2017-2018)
- Council on Environmental Stewardship and Sustainability, Co-Chair for Education (2014 – present).
- Sustainable Cities Initiative – Coulee Project (2014 – present).
- Committee Member, Senate Continuing Education Committee (2013 - 2016).
- Session Chair, Moderator Graduate Scholarly Forum. (March 11, 2014).
- Senate Continuing Education Committee (2009-2012).
- Chair, Math and Natural Sciences Subcommittee, Faculty Seed Grant Committee (2009).
- Member of Merrifield Competition Jury (2008).
- Member of Math and Natural Sciences Subcommittee, Faculty Seed Grant Committee (2007-2011).
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COMMUNITY SERVICE

- Franklin Club President, Grand Forks, ND (2022-2023)
- Cub Scout Den Leader, Pack 3002, Grand Forks, ND (2011-2016)
- Co-leader with Phil Gerla of Stream Assessment Field Workshop for the Nature Conservancy, at Turtle River State Park, ND (August 13-14, 2007).
- Produced map of CCC Sites with Grand Forks Community High School Students for Turtle River State Park, Arvilla, ND (Spring 2007).
- Produced winter and summer trail maps for Turtle River State Park, Arvilla, ND (Fall 2006).
- Rocks and minerals demonstration for 3rd grade classes, Lake Agassiz Elementary School, Grand Forks, ND (September 25, 2006).
- Led Brownie Troop 309 on nature hike at Turtle River State Park (October 15, 2006).
- Committee Member, Blackfoot Challenge Habitat and Water Quality Restoration Committee, Ovando, MT (2002-2006).
- Technical participant, Blackfoot Challenge field assessment of Blackfoot River for determination of Total Maximum Daily Loads (TMDL's), upper Blackfoot River, MT. Lincoln, MT (August 12, 2002).

SHORT COURSES ATTENDED/CERTIFICATIONS

- HAZWOPER-29CFR 1910.120 certified 40 hour and 8 hour refresher courses. Required for sampling and investigations on Superfund sites (1991-2008).
- River Channels Course, Luna B. Leopold, Bill Thrush and Scott McBain, instructors, Teton Science School, Jackson Hole, WY (July 23-25, 2001).

- ESRI Introduction to ArcView GIS, Montana State University, Bozeman, MT (May 3-4, 1999).
- Operation and Maintenance of the Neutron Moisture Probe, Montana State University, Bozeman, MT (March, 1998).
- Radiation Safety Training, Montana State University, Bozeman, MT (October 16, 1995).
- GIS and the Geosciences, GSA Continuing Education Course, Geological Society of America Annual Meeting, Seattle, WA (October 23, 1994).
- Leaking Underground Storage Tank Site Assessment and Corrective Action, U.S. Environmental Protection Agency, Region VIII Office, Denver, CO (September 18-20, 1991).

AWARDS, HONORS AND HONOR SOCIETIES

- **North Dakota Spirit Faculty Achievement Award**, University of North Dakota. (February 23, 2012).
- **Nominated for Undergraduate Teaching Award**, University of North Dakota (2006).
- **Who's Who "The Chancellor's List"** (2004-2005).
- **Phi Kappa Phi**, Kansas State University chapter, Manhattan, KS (2005).
- **Student Paper Award**, Honorable mention for student paper competition at the 2002 Annual meeting of the Great Plains/Rocky Mountain Division of the Association of American Geographers, Missoula, MT (2002).
- **Leadership Award**, Department of Geography, Kansas State University, Manhattan, KS (2002).
- **Gamma Theta Upsilon**, Kansas State University chapter, Manhattan, KS (2001).
- **Nominated for Governor's Appreciation Award for Excellence in Performance**, Montana Department of Environmental Quality, Helena, MT (1995).
- **Nominated for John W. Bartlett Employee of the Year**, Montana Department of Health and Environmental Sciences, Helena, MT (1994).

PROFESSIONAL SOCIETIES

American Association of Geographers (2000-present).
 American Quaternary Association (1996-2010).
 American Society of Mining and Reclamation (1996-2015).
 Canadian Association of Geographers (2014-present).
 Geological Society of America (1988-present).
 National Council for Geographic Education (2007-2008).
 North Dakota Geographic Alliance (2007-present)
 North Dakota Chapter of the Wildlife Society (2010-2011)