CURRICULUM VITAE

BRADLEY C. RUNDQUIST

GENERAL INFORMATION

CONTACT

Department of Geography
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EDUCATION

Ph.D. Geography, Kansas State University, Manhattan. 2000. Dissertation title: Fine-scale spatial and temporal variation in the relationship between spectral reflectance and a prairie vegetation canopy. Advisor: D.G. Goodin
M.A. Geography, Kansas State University, Manhattan. 1995. Thesis title: A reflection of its water: Agricultural land-use change in Finney County, Kansas, 1987-1992. Advisor: M.D. Nellis
B.J. News-Editorial, University of Nebraska, Lincoln. 1991. Completed minors in geography, biology, and Latin

APPOINTMENTS

2005-Present	**Adjunct Associate Professor**, Department of Space Studies, UND
2004-Present	**Associate Professor**, Department of Geography, UND
	Adjunct Associate Professor, Department of Earth System Science & Policy
	Director, North Dakota View (AmericaView Consortium)
2002-Present	**Director**, Geographic Information Science Graduate Certificate, UND
2000-Present	**Director**, Geographic Analysis and Remote Sensing Laboratory, UND
2000-2004	**Assistant Professor**, Department of Geography, UND
1998-2000	**Adjunct Instructor**, College of Technology and Aviation, Kansas State University at Salina
1997-2000	**Graduate Research Assistant**, Department of Geography, Kansas State University, Manhattan
1997-2000	**Manager**, Remote Sensing Research Laboratory, Department of Geography, Kansas State University, Manhattan
1995-1996	**Associate Scientist**, Lockheed Martin Engineering & Sciences Company, NASA Johnson Space Center, Houston, TX
1993-1995	**Graduate Teaching Assistant**, Department of Geography, Kansas State University, Manhattan
1991-1992	**Assistant City Editor**, *The Messenger* (Daily Newspaper) Fort Dodge, IA

TEACHING

TEACHING INTERESTS

- Remote Sensing and Digital Image Processing
- Geographic Information Systems
- Biogeography
- Introductory Physical Geography

COURSES TAUGHT

- Global Physical Environment (GEOG 121 at UND)
- Environmental Remote Sensing and Air Photo Interpretation & Lab (GEOG 374/L at UND)
- Biogeography (GEOG 421 at UND)
- Introduction to Geographic Information Systems (GEOG 474 at UND)
- Digital Image Processing (GEOG 475 at UND)
- Advanced Techniques in Geographic Information Systems (GEOG 574 at UND)
- Graduate Seminar in Remote Sensing (GEOG 575 at UND)
- Field Methods in Geography (GEOG 421/576 at UND)

GRADUATE RESEARCH ADVISED AT UND

- **Completed:**

2007 Scott A. Abel, M.S. "The Impact of Human Landscape Features and Associated Predator Influences on Duck Nest Survival in the Prairie Pothole Region." Thesis Committee Chair. (GIS/IT Specialist, Red Lake Department of Natural Resources, Red Lake, MN).

Lisa M. Kuchy, M.S. "Remote Sensing-Based Study of Land-Cover Changes Related to Mining and its Impacts on Marine Fauna: A Case Study in Goa, India." Thesis Committee Co-Chair (with S. Seelan). (Imagery Analyst, SPADAC, Washington, D.C.).

Kristofor P. Parson, M.S. "Predicting Selenium in Pinto Beans using Linear Regression and GIS." Thesis Committee Co-Chair (with J. Finley). (Research Analysis Specialist, Minnesota Pollution Control Agency, St. Paul, MN).

2006 Charles C. Geraci, M.S. "Remote Sensing Assessment of Widespread Saltcedar Infestation and Biological Control in Northwest Nevada." Thesis Committee Chair. (Project Coordinator, NAVTEQ, Fargo, ND).

2005 Sarita Pachhai, M.S. "Comparison between 1m LIDAR and 30m NED DEMs for Temporary Floodwater Storage Estimations in the Red River of the North Basin." Thesis Committee Chair. (GIS Specialist, MACTEC Inc., St. John's River Water Management District, Palatka, FL).

Md. Shahriar Pervez, M.S. "Land Cover Dynamics and Conversion of Agricultural Land in Northwestern Bangladesh, 1973-2003." Thesis Committee Co-Chair. (with S. Seelan). (Environmental Scientist, SAIC, USGS EROS Data Center, Sioux Falls, SD).

Brent E. Pringle, M.S. "Using High Spatial Resolution Imagery to Map Leafy Spurge and Canada Thistle in the North Unit of Theodore Roosevelt National Park." Thesis Committee Chair. (Emergency Manager, Stark County, Dickinson, ND).

Kyle A. Glazewski, M.S. "Integration of GIS and Smoke Plume Dispersion Modeling for Prescribed Burns at Grand Forks Air Force Base." Thesis Committee Chair. (Watershed Coordinator, Eastern Grand Forks County Soil Conservation District, Grand Forks, ND).

2004 David A. Brookman, M.S. "Remote Sensing and Predictive Modeling of Saltcedar (Tamarix) in the Northern Great Plains." Thesis Committee Chair. (Image Analyst, National Geospatial-Intelligence Agency, Washington, D.C.).

2003 Paul R. Sethre, M.S. "Assessing Open Water Expansion from 1991-2002 in the Devils Lake Basin of North Dakota using Subpixel Classification of Remotely Sensed Data." Thesis Committee Chair. (Systems Engineer, NAVTEQ, Fargo, ND).

Earl K. Davis, M.S. "Creating a Comprehensive Map of Roatan, Honduras, using GIS." Independent Study Advisor.

Steven A. Moe, M.S. "Development of an Automated Method to Detect Change in Winter Wheat Acreage using Remotely Sensed Data and GIS." Independent Study Advisor. (GIS Analyst, SAIC, Grand Forks Air Force Base, Grand Forks, ND).

Casey J. Mutzenberger, M.S. "Application of GIS in the Surveying and Management of Piping Plover and Least Tern." Independent Study Advisor. (Environmental Scientist, Division of Air Quality, North Dakota Department of Health, Bismarck, ND).

2002 Nathan F. Smith, M.S. "Imaging Spectrometry to Map Potential Wildfire Fuels in Theodore Roosevelt National Park, North Dakota." Thesis Committee Chair. (GIS Analyst, Trempealeau County, WI).

2001 Heith M. Dokken, M.A. "Remote Sensing of Marijuana: A Preventative Form of Law Enforcement." Thesis Committee Chair. (Research Engineer, Energy & Environmental Research Center, Grand Forks, ND).

• **In Progress:**

- Kristena Johnson, M.A. Geography, Thesis Committee Chair, 2003-present
- William Wetherholt, M.A. Geography, Thesis Committee Chair, 2007-present.

GRADUATE COMMITTEES

• **Completed:**

2007 Tedros Berhane, M.S. Earth System Science and Policy
Julie Gallagher, M.S. Geography
Eric Pulis, M.S. Biology

2006 Joshua Johnston, M.S. Geography
Shankar Karki, Ph.D. Energy Engineering
Penny Pettit, M.S. Earth System Science and Policy

Gary Votaw, M.S. Geography

2005 Nsalambi Nkongolo, M.S. Geography
Ganesh Pulicherla, M.S. Computer Science
Shubhada Savant, M.S. Space Studies
Olalekan Sodeinde, M.S. Space Studies

2004 Damon Grabow, M.S. Atmospheric Sciences
Sara A. Milne, M.S. Biology

- **In Progress:**
  - Bethany Bolles, M.S. Space Studies
  - Brandee Pang Brookman, M.S. Geography
  - Anne Coyle, Ph.D. Biology
  - Matthew Doeringsfeld, Ph.D. Biology
  - Beth Hagensen, Ph.D. Criminal Justice
  - David Hartzell, M.S. Space Studies
  - Kyna Hogg, M.S. Biology
  - Marc Kurz, M.S. Space Studies
  - John Leonhart, Ph.D. Biology
  - James Lindstrom, M.S. Geography
  - James Maskey, Ph.D. Biology
  - Chad Parent, M.S. Biology
  - Bhanuben Patel, Ph.D. Chemical Engineering
  - Richard Suggs, M.S. Geology
  - Fawn Wasin Zi, M.S. Biology

UNDERGRADUATE RESEARCH ADVISED AND/OR FUNDED

2005 Paige Baker, Geography major, Using Airborne Hyperspectral Imagery to Map a Saltcedar Infestations near Lake Sakakawea, North Dakota, Ronald E. McNair Post-baccalaureate Achievement Program.

2004 Paige Baker, Geography major, GIS Analysis of the Spatial and Temporal Distribution of Mollusks in the Hell Creek Formation of Montana, Indians Into Geosciences (INGEOS) program (funded by J.H. Hartman).

Emily Grewe, Geography major, A Test of Borehole Paleoclimatology, NSF Paleoclimate Program for Global Change (summer funding).

Christopher Sanders, Geography major, NASA Native View Connections Program: Remote Sensing and GIS Training, North Dakota Space Training and Research (NDSTaR) program (summer funding).

2003 Torgrim Hoydahl, B.S. Geography/Peace Studies 2003, Project Advisor for UND Department of Interdisciplinary Studies Senior Project.

Avram Slanger, Aviation Management major, Satellite Bioclimatology, North Dakota EPSCoR Advanced Undergraduate Research Award (summer funding).

2002 Mitchell Schull, B.S. Geography 2003, North Dakota Trauma System Assessment (semester funding).

Nicholas Ziegelmann, B.S. Geography 2002, North Dakota Trauma System Assessment (semester funding).

2001 Ben Ehreth, B.S. Geography 2001, Continued Development of GIS Data for the TEAM Leafy Spurge Project, Cooperative Ecosystem Studies Units Cooperative Agreement, United States Department of the Interior (academic year and summer funding).

CURRICULUM DEVELOPMENT

2006 **Rundquist, B.C.** and P.R. Sethre. *Environmental Remote Sensing and Air Photo Interpretation Laboratory Manual, Fourth Edition*. Grand Forks: University of North Dakota, Geography Department.

2005 **Rundquist, B.C.** and P.R. Sethre. *Environmental Remote Sensing and Air Photo Interpretation Laboratory Manual, Third Edition*. Grand Forks: University of North Dakota, Geography Department.

2003 **Rundquist, B.C.** and P.R. Sethre. *Environmental Remote Sensing and Air Photo Interpretation Laboratory Manual, Second Edition*. Grand Forks: University of North Dakota, Geography Department.

2001 **Rundquist, B.C.** *Environmental Remote Sensing and Air Photo Interpretation Laboratory Manual*. Grand Forks: University of North Dakota, Geography Department.

2000 **Rundquist, B.C.**, J.A. Harrington, Jr., and A.J. Smith. *Introduction to Remote Sensing Laboratory Manual, Eighth Edition*. Manhattan: Kansas State University, Geography Department.

1999 **Rundquist, B.C.**, and J.A. Harrington, Jr. *Introduction to Remote Sensing Laboratory Manual, Seventh Edition*. Manhattan: Kansas State University, Geography Department.

1996 Harrington, J.A., Jr., M.D. Nellis, and **B.C. Rundquist**. *Introduction to Remote Sensing Laboratory Manual, Sixth Edition*. Manhattan: Kansas State University Geography Department.

WORKSHOPS AND INVITED PRESENTATIONS (TEACHING FOCUS)

2006 Fundamentals and Applications of Remote Sensing, North Dakota GIS Users Conference, Bismarck, ND.

2005 Introduction to Remote Sensing Workshop, Introduction to Remote Sensing and Geographic Information System Integration for State, Local, and Tribal Government in North Dakota, NASA-National States Geographic Information Council Workshop, Bismarck, ND.

2003 The Use of Hyperspectral Remote Sensing for Vegetation Detection and Mapping, Guest Lecture in Space Studies 535: Satellite Information Processing, University of North Dakota.

2002 Applications of Remote Sensing in the Geosciences. Presentation to Indians into Geosciences (INGEOS), Department of Geology and Geological Engineering, University of North Dakota.

2001 From Plot to Planet: Remote Sensing of Vegetation on Multiple Scales. Guest Lecture in Space Studies 535: Satellite Information Processing, University of North Dakota.

SCHOLARSHIP

RESEARCH INTERESTS

- Spatial and temporal variation in vegetation distribution
- Land use/land cover change
- Environmental remote sensing
- Proximal remote sensing (field spectroscopy)

REFEREED PAPERS

2007 **Rundquist, B.C.** and D.A. Brookman. Spectral characterization of the invasive shrub Saltcedar (*Tamarix spp.)* in North Dakota. *Geocarto International* 22(1):63-72.

Todhunter, P.E., and **B.C. Rundquist**. Pervasive wetland flooding in the Glacial Drift Prairie of North Dakota (USA). *Natural Hazards* (accepted).

2006 **Rundquist, B.C.**, C.J. Henrie, and E.J. Grewe. Internet access to remotely sensed data: Satellite imaging made commonplace. *Journal of Map & Geography Libraries* 2(2):21-32.

2005 Sethre, P.R., **B.C. Rundquist**, and P.E. Todhunter. Remote detection of prairie pothole ponds in the Devils Lake Basin of North Dakota. *GIScience & Remote Sensing* 42(4):277-296.

2004 Todhunter, P.E., and **B.C. Rundquist**. The nine-year flood: Terminal lake flooding and wetland expansion in Nelson County, North Dakota (USA). *Physical Geography* 25(1):68-85.

Brookman, D.A., B.P. Pang, B.E. Pringle, and **B.C. Rundquist**. Changes in urbanization in Northern Illinois from 1988 to 2001 using Landsat and census data. *Papers and Proceedings of the Applied Geography Conferences* 27:223-230.

2003 Brookman, D.A., **B.C. Rundquist**, and R.S. Hanley. Prediction of Saltcedar (Tamarix ramosissma): A risk assessment using the Genetic Algorithm for Rule-Set Prediction (GARP) Model. *Papers and Proceedings of the Applied Geography Conferences* 26:462-470.

2002 **Rundquist, B.C.** The influence of canopy vegetation fraction on spectral measurements over native tallgrass prairie. *Remote Sensing of Environment* 81(1):129-135.

Goodin, D.G., J.A. Harrington, Jr., and **B.C. Rundquist**. Land-cover change and associated trends in reflectivity and vegetation index in southwestern Kansas: 1972-1992. *Geocarto International* 17(1):43-50.

Smith, N.F., **B.C. Rundquist**, R.R. Root, S.R. Hager, and B. Card. Imaging spectrometry to map potential wildfire fuels and Theodore Roosevelt National Park, North Dakota. *Papers and Proceedings of the Applied Geography Conferences* 25:276-284.

Wu, J., M.D. Ransom, M.D. Nellis, G.J. Kluitenberg, H.L. Seyler, and **B.C. Rundquist**. Using GIS to assess and manage the Conservation Reserve Program in Finney County, Kansas. *Photogrammetric Engineering & Remote Sensing* 68(7):735-744.

2000 **Rundquist, B.C.**, and J.A. Harrington, Jr. The effects of climatic factors on vegetation dynamics of tallgrass and shortgrass cover. *Geocarto International* 15(3):31-36.

Rundquist, B.C., J.A. Harrington, Jr., and D.G. Goodin. Mesoscale satellite bioclimatology. *The Professional Geographer* 52(2):331-344.

Rundquist, B.C., D.G. Goodin, and A.J. Smith. Relating biophysical processes to spatial patterns of spectral reflectance: A multiple-scale analysis of prairie vegetation canopies. *Papers and Proceedings of the Applied Geography Conferences* 23:190-198.

1999 Wu, J., M.D. Nellis, M.D. Ransom, H. Su, and **B.C. Rundquist**. Characterizing the relationships between land use and groundwater for Finney County, Kansas. *Geographical and Environmental Modeling* 3(2):203-215.

Hutchinson, J.M.S., and **B.C. Rundquist**. Rural land-cover classification using multidate SAR imagery. *Papers and Proceedings of the Applied Geography Conferences* 22:332-340.

1998 **Rundquist, B.C.** The effects of climatic factors on vegetation dynamics across homogeneous land cover. *Papers and Proceedings of the Applied Geography Conferences* 21:424-431.

Hutchinson, J.M.S., and **B.C. Rundquist**. Spatial modeling of net radiation over heterogeneous terrain. *Papers and Proceedings of the Applied Geography Conferences* 21:416-423.

1997 Lulla, K.P., and **B.C. Rundquist**. Space shuttle photography for detecting changes in Hong Kong's land cover. In *Hong Kong and the Pearl River Delta as Seen from Space Images*, special publication of *Geocarto International*, 57-62.

Rundquist, B.C. Spatial and temporal variation in NDVI response to climatic variables in Kansas. *Papers and Proceedings of the Applied Geography Conferences* 20:304-309.

Tao, Y., Z. Chi, J.A. Harrington, Jr., and **B.C. Rundquist**. Analysis of the relationship between NDVI and rainfall in subhumid agricultural areas and the influence of environmental factors. *Papers and Proceedings of the Applied Geography Conferences* 20:310-317.

UNREFEREED PROCEEDINGS PAPERS

2005 Pachhai, S., **B.C. Rundquist**, B.B. Bolles, W.D. Peck, and X. Wang. Temporary floodwater storage volume estimation using 1-m LiDAR and 30-m DEMs in the Red River Basin of the North. *ASPRS Pecora 16 Conference Proceedings* (Paper #58).

1998 **Rundquist, B.C.**, J.A. Harrington, Jr., D.G. Goodin, and Y. Tao. Regional and local NDVI response to climate variables in Kansas. *ASPRS-RTI Annual Convention and Exhibition Proceedings* 579-591.

1996 Runco, S., K.P. Lulla, M.F. McKay, and **B.C. Rundquist**. The NASA space shuttle Earth observation photography database. *Eco-Informa '96 Proceedings* 11:779-784.

Miewald, T., S. Narumalani, **B.C. Rundquist**, and K.P. Lulla. Integration of space shuttle photography and SIR-C data for land-cover analysis. *ASPRS/ACSM Annual Convention and Exhibition Proceedings* 615-624.

PUBLISHED REPORTS

2003 Todhunter, P.E., and **B.C. Rundquist**. Flood damage assessment and survey of mitigation efforts at Stump Lake, North Dakota: A study of a closed-basin lake flood. *Quick Response Research Grant Report #164*. Boulder, CO: Natural Hazards Research and Applications Information Center, University of Colorado. URL: http://www.colorado.edu/hazards/qr/qr164/qr164.html.

GENERAL READERSHIP

1997 **Rundquist, B.C.** Astronaut photography: portraits of the planet. *Geographic Insights* 7(3):11-13.

Rundquist, B.C., R. Bivens, K.P. Lulla, and M.D. Nellis. Kansas ... from above. *Kansas Wildlife and Parks* 54(2):24-27.

1996 **Rundquist, B.C.**, D. Frank, T. Miewald, K.P. Lulla, and D. McLaughlin. GIS for astronaut training: First step into a new frontier. *GIS World* 9(4):44-47.

Rundquist, B.C., and K.P. Lulla. Nebraska: Through the eyes of astronauts. *NEBRASKAland* 74(9):41-47.

Rundquist, B.C., M.D. Nellis, and K. Price. Groundwater level declines in southwestern Kansas. *Geographic Insights* 6(2):12-14.

1993 Kuzelka, R., and C. Flowerday (eds). *Flatwater: A History of Nebraska and Its Water*. Lincoln, NE: Conservation and Survey Division. (Several articles by **B.C. Rundquist**).

1991 **Rundquist, B.C.** Summary of 35th Annual Groundwater Conference. *Great Plains Research* 1(1):168-170.

WORKS IN PROGRESS

Laux, S.A., **B.C. Rundquist**, and R.A. Sweitzer. Habitat suitability modeling as a tool for managing black-tailed prairie dogs (*Cynomys ludovicianus*). *Journal of Wildlife Management* (in review).

Pervez, S., S.K. Seelan, and **B.C. Rundquist**. Land cover change analysis in northwestern Bangladesh using satellite remote sensing. *Geocarto International* (in review).

Olimb, S.K., **B.C. Rundquist**, and B.J. Goodwin. The once vast prairie: multi-scale analysis of the landscape surrounding prairie patches along the Minnesota-North Dakota border, USA. (in preparation).

PAPERS PRESENTED AT PROFESSIONAL MEETINGS (ORAL)

2007 **Rundquist, B.C.** Cultivating geospatial technology education partnerships with tribal colleges in North Dakota. AmericaView Annual Conference, Fayetteville, AR.

Kuchy, L.M., **B.C. Rundquist**, S.K. Seelan, and R. Nigam. Remote sensing-based study of land-cover changes related to mining and its impacts on marine fauna: A case study in Goa, India. Association of American Geographers, San Francisco, CA.

Rundquist, B.C. North Dakota View Accomplishments, 2006-07, North Dakota View 2007, Belcourt, ND.

2006 Pervez, S., S.K. Seelan, and **B.C. Rundquist**. Land cover dynamics and conversion of agricultural land in northwestern Bangladesh, 1973-2003. American Geophysical Union 2006 Joint Assembly, Baltimore, MD.

Gosnold, W., J. Majorowicz, P. Todhunter, **B. Rundquist**, X. Dong, J. Popham, S. Wood, S. Heinle, R. Robinson. Linking borehole temperatures to air temperatures. European Geosciences Union 2006 General Assembly, Vienna, Austria.

Rundquist, B.C. North Dakota View Accomplishments, 2005-06, North Dakota View 2006, Fort Yates, ND.

Rundquist, B.C., P.R. Sethre, and P.E. Todhunter. Remote detection of prairie pothole ponds. Prairie Division of the Canadian Association of Geographers, Rugby, ND.

Rundquist, B.C. North Dakota View. Upper Midwest Chapter of the American Society for Photogrammetry and Remote Sensing, Brookings, SD.

2005 Pachhai, S., **B.C. Rundquist**, B.B. Bolles, W.D. Peck, and X. Wang. Temporary flood storage volume estimations using 1-m LiDar and 30-m NED DEMs for the Red River or

the North Basin. ASPRS Pecora 16: Global Priorities in Land Remote Sensing, Sioux Falls, SD.

Rundquist, B.C., P.R. Sethre, and P.E. Todhunter. Remote detection of prairie pothole ponds in the Devils Lake Basin of North Dakota. Great Plains/Rocky Mountain Division of the Association of American Geographers, Laramie, WY.

Geraci, C.C., **B.C. Rundquist**, and T. Dudley. Remote sensing assessment of widespread saltcedar infestation and biological control in northwest Nevada. Prairie Division, Canadian Association of Geographers, Winnipeg, MB.

Pang Brookman, B.P., **B.C. Rundquist**, G.S. Vandeberg, and D.A. Brookman. Investigating climatic variability of ice jams along the Red River of the North, North Dakota. Applied Geography Conference, Washington, D.C.

Pringle, B.E., and **B.C. Rundquist**. Using high spatial resolution imagery to map leafy spurge and Canada thistle in the north unit of Theodore Roosevelt National Park. North Dakota Academy of Science, Grand Forks, ND.

Pachhai, S., **B.C. Rundquist**, W.D. Peck, and B.A. Bolles. USGS 30-m and LIDAR 1-m DEMs to assess the accuracy of elevations in the Red River of the North Basin. North Dakota Academy of Science, Grand Forks, ND.

Fischer, S., B. Goodwin, and **B. Rundquist**. The once vast prairie: Landscape and patch characteristics of fragments in the Prairie Parkland Province. Northern Plains Biological Symposium, Fargo, ND.

2004 **Rundquist, B.C.** Remote sensing as a tool for investigating human-environment interactions. National Council for Geographic Education, Kansas City, MO.

Pervez, Md S., **B.C. Rundquist**, and S.K. Seelan. Mapping land cover change in northern Bangladesh (1973-1996) using multi-temporal Landsat MSS and TM imagery. Great Plains/Rocky Mountain Division of the Association of American Geographers, Sioux Falls, SD.

Rundquist, B.C., D.A. Brookman, D.C. Rundquist, and R.L. Perk. Hyperspectral remote sensing of invasive saltcedar near Lake Sakakawea, North Dakota. Association of American Geographers, Philadelphia, PA.

P. Baker, J.H. Hartman, and **B.C. Rundquist**. GIS analysis of the spatial and temporal distribution of mollusks in the Hell Creek Formation of Montana. Indians into Geosciences (INGEOS) Conference, Grand Forks, ND.

2003 **Rundquist, B.C.**, and A.F. Slanger. The effects of land cover on climate-vegetation-sensor relationships in North Dakota. Great Plains/Rocky Mountain Division of the Association of American Geographers, Manhattan, KS.

Brookman, D.A., **B.C. Rundquist**, and R.S. Hanley. Prediction of Saltcedar (Tamarix ramosissima): A risk assessment using the Genetic Algorithm for Rule-Set Prediction (GARP) model. Applied Geography Conference, Colorado Springs, CO.

Todhunter, P.E. and **B.C. Rundquist**. Damage assessment of Stump Lake and wetland flooding in Nelson County, North Dakota. First Annual International Water Conference, Moorhead, MN.

Todhunter, P.E., and **B.C. Rundquist**. Slow death by water: Ten years of flooding in Nelson County, North Dakota. Association of American Geographers, New Orleans, LA.

2002 Smith, N.F., **B.C. Rundquist**, R.R. Root, S.R. Hager, and B. Card. Imaging spectrometry to map potential wildfire fuels and Theodore Roosevelt National Park, North Dakota. Applied Geography Conference, Binghampton, NY.

Rundquist, B.C., P.E. Todhunter, and P.R. Sethre. Assessing the loss of agricultural lands from a pervasive, closed-basin flooding event in the Devils Lake Basin of North Dakota. Applied Geography Conference, Binghampton, NY.

2001 **Rundquist, B.C.**, and P.E. Todhunter. Assessing potential damage from a pervasive, closed-basin flooding event at Stump Lake, North Dakota. Great Plains/Rocky Mountain Division of the Association of American Geographers, Omaha, NE.

Rundquist, B.C. *In situ* remote sensing of green vegetation fraction over tallgrass prairie cover. American Society for Photogrammetry and Remote Sensing, St. Louis, MO.

Goodin, D.G., **B.C. Rundquist**, and A.J. Smith. Biophysical process and spatial-spectral response: a multi-scale analysis in tallgrass prairie. American Society for Photogrammetry and Remote Sensing, St. Louis, MO.

Harrington, J.A., Jr., **B.C. Rundquist**, D.G. Goodin, and A.J. Smith. The influence of crop rotation on change detection in the High Plains. American Society for Photogrammetry and Remote Sensing, St. Louis, MO.

Rundquist, B.C. Close-range remote sensing for estimating vegetation fraction over a native tallgrass prairie canopy. Association of American Geographers, New York, NY.

2000 **Rundquist, B.C.**, D.G. Goodin, and A.J. Smith. Relating biophysical processes to spatial patterns of spectral reflectance: A multiple-scale analysis of prairie vegetation canopies. Applied Geography Conference, Tampa, FL.

Rundquist, B.C. Close-range remote sensing of canopy vegetation fraction over tallgrass prairie. Association of American Geographers, Pittsburgh, PA.

1999 **Rundquist, B.C.**, J.A. Harrington, Jr., and D.G. Goodin. Mapping long- and short-term land-cover dynamics in southwest Kansas through data fusion. American Society for Photogrammetry and Remote Sensing, Portland, OR.

Hutchinson, J.M.S., **B.C. Rundquist**, and J.A. Harrington, Jr. Rural land-cover classification using multidate SAR imagery. American Society for Photogrammetry and Remote Sensing, Portland, OR.

Goodin, D.G., J.A. Harrington, Jr., and **B.C. Rundquist**. Land-use change and associated trends in surface reflectivity in southwestern Kansas, 1972-1992. American Society for Photogrammetry and Remote Sensing, Portland, OR.

Harrington, J.A., Jr., **B.C. Rundquist**, and D.G. Goodin. Mesoscale satellite bioclimatology. American Society for Photogrammetry and Remote Sensing, Portland, OR.

Rundquist, B.C. Variation in narrow-band spectral response across a water gradient on tallgrass prairie. Association of American Geographers, Honolulu, HI.

Harrington, J.A., Jr., **B.C. Rundquist**, and D.G. Goodin. Mesoscale satellite bioclimatology. Association of American Geographers, Honolulu, HI.

1998 **Rundquist, B.C.** The effects of climatic factors on vegetation dynamics across homogeneous land cover. Applied Geography Conference, Louisville, KY.

Rundquist, B.C., and J.A. Harrington., Jr. Regional and local NDVI response to climate variables in Kansas. American Society for Photogrammetry and Remote Sensing, Tampa, FL.

1997 **Rundquist, B.C.** NDVI response to climatic variation in Kansas. Applied Geography Conference, Albuquerque, NM.

Rundquist, B.C. Spatial and temporal variation in NDVI response to climatic variables in Kansas. Great Plains/Rocky Mountain Division of the Association of American Geographers, Bozeman, MT.

1996 **Rundquist, B.C.** New technologies for teaching Earth science to astronauts. American Institute of Aeronautics and Astronautics, Houston, TX.

1995 **Rundquist, B.C.** The use of GIS to train astronauts. East Texas GIS Forum, Texas Regional Institute for Environmental Studies, Huntsville, TX.

PAPERS PRESENTED AT PROFESSIONAL MEETINGS (POSTER)

2007 Berhane, T., X. Zhang, M. Hill, and **B. Rundquist.** Remote sensing of heat fluxes using SEBAL: A comparison between Landsat and MODIS. American Geophysical Union Fall Meeting, San Francisco, CA.

2006 Abel, S.A. and **B.C. Rundquist**. The impact of human landscape features and associated predator influences on duck nest survival in the Prairie Pothole Region. Great Plains/Rocky Mountain and West Lakes Divisions of the Association of American Geographers, Lincoln, NE.

Kuchy, L.M., **B.C. Rundquist**, S.K. Seelan, and R. Nigam. Remote sensing-based study of land-cover changes related to mining and its impacts on marine fauna: A case study in Goa, India. Great Plains/Rocky Mountain and West Lakes Divisions of the Association of American Geographers, Lincoln, NE.

Wahl, S. and B. Rundquist. Remote Sensing and Geospatial Technologies for North Dakota. Prairie Division of the Canadian Associate of Geographers, Rugby, ND.

Geraci, C.C., **B.C. Rundquist**, and T. Dudley. Assessment of widespread saltcedar (*Tamarix spp.*) monocultures and biological control in northwest Nevada using moderate scale satellite imagery. Association of American Geographers, Chicago, IL.

Baker, P.R., J.H. Hartman, and **B.C. Rundquist**. GIS analysis of the spatial and temporal distribution of Cretaceous mollusks in the Hell Creek Formation of Montana. Association of American Geographers, Chicago, IL.

2005 Baker, P., D. Brookman, and **B.C. Rundquist**. Remote detection of a saltcedar infestation near Lake Sakakawea, North Dakota, using airborne hyperspectral imagery. ASPRS Pecora 16: Global Priorities in Land Remote Sensing, Sioux Falls, SD.

Rundquist, B., G. Halvorson, S. Abel, S. Savant, and D. Stonefish. Workshop: Using GPS/GIS to map leafy spurge infestations on Standing Rock Sioux lands. NASA Space Grant Meeting, Western Region, Grand Forks, ND.

Fischer, S., **B. Rundquist**, and B. Goodwin. The once vast prairie: Landscape and patch characteristics of fragments in the Prairie Parkland Province. UND Graduate School Faculty Forum, Grand Forks, ND.

Pang, B., **B. Rundquist**, G. Vandeberg, and D. Brookman. Ice jams along the Red River of the North, North Dakota. UND Graduate School Faculty Forum, Grand Forks, ND.

2004 Pachhai, S., W.D. Peck, and **B.C. Rundquist**. Comparison of temporary flood water storage volume estimations using 1-m LIDAR and 30-m NED DEM in the Red River Basin. Great Plains/Rocky Mountain Division of the Association of American Geographers, Sioux Falls, SD.

Rundquist, B.C., and S. Laducer. North Dakota NativeConnections: Geospatial technology goals for Turtle Mountain Community College. NASA Space Grant Meeting, Western Region, Houston, TX.

Sanders, C.R., and **B.C Rundquist**. NASA Native View Connections program: Remote sensing and GIS training. NASA Space Grant Meeting, Western Region, Houston, TX.

Rundquist, B.C., S. de Silva, and S. Laducer. The NativeConnections program in North Dakota: Enhancing geospatial technology education and use on tribal lands. Space on the Prairie Conference, Grand Forks, ND.

Pervez, S., **B.C. Rundquist**, and S.K. Seelan. Changes in vegetation dynamics and conversion of agricultural land in Bangladesh, 1973-2003. Space on the Prairie Conference, Grand Forks, ND.

Gosnold, Jr. W., P. Todhunter, X. Dong, **B. Rundquist**, J. Majorowicz, and D. Blackwell. A multidisciplinary approach to assessing the causal components of climate change. American Geophysical Union 2004 Joint Assembly, Montreal, Canada.

Rundquist, B.C., D.C. Munski, and D.A. Hansen. One-hundred and twenty years of geography on the northern plains: Department of Geography, University of North Dakota. Association of American Geographers, Philadelphia, PA.

Eggleston, S.M., and **B.C Rundquist**. University of North Dakota safety study. UND Graduate School Faculty Forum, Grand Forks, ND.

Gosnold, Jr., W., P. Todhunter, X. Dong, **B. Rundquist**, J. Majorowicz and D. Blackwell. Multidisciplinary approach to assessing the causal components of climate change. UND Graduate School Faculty Forum, Grand Forks, ND.

Karki, S., and **B.C. Rundquist**. Wind power suitability classification in North Dakota. UND Graduate School Faculty Forum, Grand Forks, ND.

Milne, S., R. Sweitzer, and **B. Rundquist**. Habitat suitability modeling as a tool for managing prairie dogs in western North Dakota. UND Graduate School Faculty Forum, Grand Forks, ND.

Pachhai, S., **B.C. Rundquist**, and W.D. Peck. Identification of potential areas for temporary flood water storage in the Red River Basin. UND Graduate School Faculty Forum, Grand Forks, ND.

2003 **Rundquist, B.C.** and P.E. Todhunter. Determining the extent of terminal lake and wetland flooding in Nelson County, North Dakota: 1991-2001. Space on the Prairie Conference, Grand Forks, ND.

Slanger, A.F., and **B.C. Rundquist**. Statistical Characterization of Climate-Vegetation-Satellite Sensor Relationships in North Dakota: 1994-2002. 4th Biennial North Dakota/South Dakota Joint EPSCoR Conference, Fargo, ND.

Brookman, D.A., **B.C. Rundquist**, and R.S. Hanley. Saltcedar invasion into North Dakota: A predictive analysis using the Genetic Algorithm for Rule-Set Prediction (GARP). 27th Annual Meeting of the Prairie Division of the Canadian Association of Geographers, Gimli, MB.

Moe, S.A., **B.C. Rundquist**, D.C. Munski, D.B. Pool, and D.N. Morgando. Development of an automated method to detect change in winter wheat acreage using remotely sensed data. Great Plains/Rocky Mountain Division of the Association of American Geographers, Manhattan, KS.

Sethre, P.R., and **B.C. Rundquist**. Characterization of Historical Land Use/Land Cover Change in Eastern Nelson County, North Dakota. Great Plains/Rocky Mountain Division of the Association of American Geographers, Manhattan, KS.

Brookman, D.A., and **B.C. Rundquist**. Proximal Remote Sensing of Saltcedar (Tamarix ramosissima) near Lake Sakakawea, North Dakota. Mississippi Gulf Coast Geospatial Conference, Biloxi, MS.

2002 Schull, M., N. Ziegelmann, **B. Rundquist**, and D. Hansen. Geographic Information Systems for improved management of emergency medical services in North Dakota. Upper Great Plains Technology Conference, Fargo, ND.

Rundquist, B.C., D.A. Hansen, M. Schull, and N. Ziegelmann. Creating a better rural emergency ambulance service using GIS. North Dakota EPSCoR Science, Engineering and Mathematics 10th Annual Poster Session, Grand Forks, ND.

2001 **Rundquist, B.C.** Close-range remote sensing for estimating vegetation fraction over a native tallgrass prairie canopy. Association of American Geographers 97th Annual Meeting, New York, NY.

1999 Hutchinson, J.M.S., and **B.C. Rundquist**. Spatial modeling of net radiation over heterogeneous terrain. Association of American Geographers 95th Annual Meeting, Honolulu, HI.

Rundquist, B.C., J.A. Harrington, Jr., D.G. Goodin, and H. Fang. Mapping long- and short-term land-cover change in southwest Kansas. Kansas Statewide EPSCoR Conference, Topeka, KS.

Harrington, J.A., Jr., **B.C. Rundquist**, and D.G. Goodin. Mesoscale satellite bioclimatology. Kansas Statewide EPSCoR Conference, Topeka, KS.

1998 Goodin, D.G., J.A. Harrington, Jr., and **B.C. Rundquist**. Agricultural land use and irrigation expansion in southwestern Kansas, 1972-1992. Association of American Geographers 94th Annual Meeting, Boston, MA.

Goodin, D.G., J.A. Harrington, Jr., and **B.C. Rundquist**. Agricultural land use and irrigation expansion in southwestern Kansas, 1972-1992. Water and the Future of Kansas 15th Annual Conference, Manhattan, KS.

PANEL DISCUSSIONS

2004 Strategies for Strong Consortium Partnerships, AmericaView 2004, Sioux Falls, SD.

INVITED PRESENTATIONS (RESEARCH FOCUS)

2004 Field-Based and Aerial Remote Sensing of Invasive Saltcedar near Lake Sakakawea, North Dakota, North Dakota Saltcedar Task Force, Riverdale, ND.

2003 Ecological Remote Sensing at Multiple Spatial Scales, Department of Biology Forum, University of North Dakota.

GIS Applications in Health Geography, College of Nursing Research Seminar, University of North Dakota.

Development of an Automated Method to Detect Change in Winter Wheat Acreage using Remotely Sensed Data and GIS, Ducks Unlimited, Bismarck, ND (with S. Moe).

The Quiet Flood: Terminal Lake Flooding and Wetland Expansion in Nelson County, North Dakota, Sigma Xi, University of North Dakota Chapter, 2002-2003 Seminar Series (with P. Todhunter).

Setting the Stage for Ecological Interactions: Documenting Historical Patterns of Landscape Change, North Dakota EPSCoR RNEST Working Group, Biocomplexity Cluster Workshop, University of North Dakota.

1996 GIS in Space. Presentation to Department of Geography, Kansas State University, Manhattan, KS.

GRANTS, CONTRACTS, AWARDS, AND FELLOWSHIPS (***Total Dollars: $928,160***)

2008 **Faculty Instructional Development Grant**, Office of Instructional Development, University of North Dakota, $624.

2007 **North Dakota View,** U.S. Geological Survey and AmericaView Inc., $51,000 (PI and Consortium Director).

Small Equipment Award, Office of the Vice President for Research, University of North Dakota, $2,500.

2006 **North Dakota View,** U.S. Geological Survey and AmericaView Inc., $84,000 (PI and Consortium Director).

Little Missouri National Grasslands Golden Eagle Project, U.S. Department of Agriculture, U.S. Forest Service, $40,000 (co-PI with R. Crawford).

Travel to Chicago; March 8-11, 2006, Senate Scholarly Activities Committee Travel Award, University of North Dakota Office of Research and Program Development, $276.

2005 **North Dakota View,** U.S. Geological Survey and AmericaView Inc., $89,494 (PI and Consortium Director).

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

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

2004 **North Dakota View, AmericaView Associate Membership**, U.S. Geological Survey and AmericaView Inc. (PI and Consortium Director), no funding.

Changes in Vegetation Dynamics and Conversion of Agricultural Land in Bangladesh, 1973-2004, North Dakota NASA EPSCoR Faculty Seed Award (NASA Grant #NCC5-582), $4,975 (PI).

Native View Connections: A Multi-Consortium Workforce Development Proposal, NASA Space Grant College and Fellowship Program, $25,000 (6-state consortium, each with a PI; ND PI is S. de Silva; B. Rundquist is ND's Remote Sensing Specialist).

NASA Native View Connections Program: Remote Sensing and GIS Training, North Dakota Space Training and Research (NDSTaR), NASA Space Grant College and Fellowship Program, NASA WorkForce Development Initiative, $4,000.

Computers to Support Instructional Needs in Geographic Information Sciences, Student Technology Fee Award, University of North Dakota, $35,460.

Travel to Kansas City; October 21-24, 2004, Senate Scholarly Activities Committee Travel Award, University of North Dakota Office of Research and Program Development, $227.

2003 **A Test of Borehole Paleoclimatology**, National Science Foundation, Paleoclimate Program for Global Change, University of North Dakota, $385,768, 3 years (W.D. Gosnold, PI, P.E. Todhunter, X. Dong, and B.C. Rundquist, co-PIs).

.

Detection and Prediction of Saltcedar Invasion in North Dakota, North Dakota NASA EPSCoR Faculty Seed and Student Research Awards (NASA Grant #NCC5-582), $13,256 (PI).

Investigation of Saltcedar Invasion near Lake Sakakawea, North Dakota, Upper Midwest Aerospace Consortium, $3,200 (PI).

Collection of Aerial Hyperspectral Image Data over Lake Sakakawea, North Dakota, University of North Dakota Office of Research and Program Development, $5,925 (PI).

Characterization of Historical Land Use/Land Cover and Land Use/Land Cover Change for the Amphibian Study Site in Eastern Nelson County, North Dakota (continued), North Dakota NSF EPSCoR RNEST sub-project funded through the Department of Biology, University of North Dakota, $6,000 (PI on sub-project).

Satellite Bioclimatology, North Dakota EPSCoR Advanced Undergraduate Research Award, $2,500 (PI).

Travel to Manhattan, KS; October 2-4, 2003, Senate Scholarly Activities Committee Travel Award, University of North Dakota Office of Research and Program Development, $441.

Geographic Information Sciences Course Software Fees, Student Technology Fee Award, University of North Dakota, $12,574 (with P.E. Todhunter).

2002 **Characterization of Historical Land Use/Land Cover and Land Use/Land Cover Change for the Amphibian Study Site in Eastern Nelson County, North Dakota**, North Dakota NSF EPSCoR RNEST sub-project funded through the Department of Biology, University of North Dakota, $21,030 (PI on sub-project).

Assessing Loss of Agricultural Lands to Wetland Expansion in the Devils Lake Basin of North Dakota using Satellite Remote Sensing, Faculty Research Seed Money Award, University of North Dakota, $8,221 (co-PI with P.E. Todhunter).

Request for Equipment to Meet Geographic Information Systems Instructional Needs, Student Technology Fee Award, University of North Dakota, $27,040 (with M. Hemmasi).

Installation of Network Connections, Student Technology Fee Award, University of North Dakota, $3,200 (with M. Hemmasi).

Purchase of GPS Units for Instructional Purposes, Student Technology Fee Award, University of North Dakota, $1,975 (with M. Hemmasi).

Travel to Binghamton, New York; October 26-28, 2002, Senate Scholarly Activities Committee Travel Award, University of North Dakota Office of Research and Program Development, $381.

2001 **Development of an Automated Method to Detect Change in Winter Wheat Acreage using Remotely Sensed Data**, Ducks Unlimited Inc., $6,500 (PI).

North Dakota Trauma System Assessment, U.S. Department of Health, Health Resources and Services Administration, Maternal and Child Health Bureau, $45,000 (co-PI with D.A. Hansen and UND Center for Rural Health).

Continued Development of GIS Data for the TEAM Leafy Spurge Project, Cooperative Ecosystem Studies Units Cooperative Agreement, United States Department of the Interior, National Park Service, Theodore Roosevelt National Park, and the University of North Dakota, $9,996 (PI).

Development of Web-Based Exercises for Geography 275: Remote Sensing of the Environment, Summer Instructional Development Professorship, University of North Dakota Office of Instructional Development, $2,700 (PI).

Flood Damage Assessment and Survey of Mitigation Efforts at Stump Lake, North Dakota: A Case Study of a Closed-Basin Lake Flood, Quick Response Research

Program, Natural Hazards Research and Applications Information Center, University of Colorado, Boulder, $1,175 (co-PI with P.E. Todhunter).

2000 **Request to Purchase AVHRR Satellite Data**, UND Space Grant Proposal, $2,820.

Travel to New York, New York; February 28-March 4, 2001, Senate Scholarly Activities Committee Travel Award, University of North Dakota Office of Research and Program Development, $400.

Travel to New York, New York; February 28-March 4, 2001, Upper Midwest Aerospace Consortium Travel Grant, $850.

1994 **Graduate School Fellowship**, Kansas State University, $1,000.

1993 **Graduate School Fellowship**, Kansas State University, $1,000.

SERVICE

PROFESSIONAL SERVICE

- **Offices in Professional Associations/Honor Societies:**
  - President, Upper Midwest Chapter, American Society for Photogrammetry and Remote Sensing, 2007-
  - Book Review Editor, *Photogrammetric Engineering & Remote Sensing*, American Society for Photogrammetry and Remote Sensing, 2007-
  - Chair, Great Plains/Rocky Mountain Division, Association of American Geographers, 2007-2008.
  - Vice Chair, Great Plains/Rocky Mountain Division, Association of American Geographers, 2006-2007.
  - Student Director, Remote Sensing Specialty Group, Association of American Geographers, 1997-1998 and 1994-1995.
  - President, Gamma Theta Upsilon, Beta Psi Chapter, Kansas State University, 1994-1995.

- **Manuscripts Reviews for:**
  - *Annals Botanici Fennici*
  - *Geocarto International*
  - *International Journal of Remote Sensing*
  - *Journal of Arid Environments*
  - *Journal of Geoscience Education*
  - *Great Plains Research*
  - *Papers and Proceedings of the Applied Geography Conferences*
  - *Photogrammetric Engineering and Remote Sensing*
  - *Prairie Perspectives: Proceedings of the Canadian Association of Geographers, Prairie Division Annual Meeting, 2000*
  - *Proceedings of the 18th North American Prairie Conference*
  - *Remote Sensing of Environment*
  - *Wetlands*

- **Book Chapters Reviewed:**
  - The Vegetation of Saskatchewan, In: *The Geography of* Saskatchewan. University of Regina: Department of Geography, 2003.

- **Textbooks/Lab Manuals Reviewed:**
  - Christopherson, R.W., and C.E. Thomsen. 2006. *Applied Physical Geography: Geosystems in the Lab*, Upper Saddle River, NJ: Pearson Education, Inc.
  - Marsh, William. 2001. *Introduction to Physical Geography*, New York, NY: W.H. Freeman and Company.
  - Christopherson, R.W., and G.L. Hobbs. 2000. *Applied Physical Geography: Geosystems in the Lab*, Upper Saddle River, NJ: Prentice-Hall, Inc.

- **Proposals Reviewed:**
  - AmericaView Consortium (6 proposals for full membership in 2007)
  - NASA-USDA Land Cover/Land Use Change Initiative (10 pre-proposals and 6 full proposals, plus panel participation in Washington, D.C., 2005)
  - NASA Earth System Science Fellowship Graduate Student Program
  - NSF Faculty Early Career Development (CAREER) Program
  - NSF Geography and Regional Science Program (x2)
  - USDA Small Business Innovation Research (SBIR) Program Phase I (x4)
  - USDA Small Business Innovation Research (SBIR) Program Phase II
  - Canadian Foundation for Climate and Atmospheric Sciences (CFCAS)
  - Azerbaijan-U.S. Bilateral Grants Program of the U.S. Civilian Research and Development Foundation (CRDF)
  - North Dakota NASA EPSCoR Seed Money Program (x3)

- **Professional Conference Planning**:
  - Great Plains/Rocky Mountain Division of the Association of American Geographers 2008, Grand Forks, ND.
  - North Dakota View 2006, Fort Yates, ND

- **Professional Meeting Service**:
  - Chair, Invasive Plants Session, Pecora 16, Sioux Falls, SD, 2005.
  - Chair, GIScience Applications in Human and Physical Geography Session, Great Plains/Rocky Mountain Division of the Association of American Geographers, Laramie, WY, 2005.
  - Judge, Remote Sensing Specialty Group Student Paper Competition, Association of American Geographers, Philadelphia, PA, 2004.
  - Chair, Environmental Assessment Session, Great Plains/Rocky Mountain Division of the Association of American Geographers, Manhattan, KS, 2003.
  - Chair, Remote Sensing and Climate Change Session, Great Plains/Rocky Mountain Division of the Association of American Geographers, Omaha, NE, 2001.
  - Chair, Environmental Assessment and Analysis Session, Applied Geography Conference, Tampa, FL, 2000.
  - Chair, Physical Geography II Session Chair, Prairie Division of the Canadian Association of Geographers, Devils Lake, ND, 2000.
  - Remote Sensing Specialty Group Student Paper Competition Organizer, Association of American Geographers, Honolulu, HI, 1999.
  - Remote Sensing Specialty Group Student Poster Competition Organizer. Association of

American Geographers, Honolulu, HI, 1999.

UNIVERSITY SERVICE

- Mentor, Alice T. Clark/UND Foundation Scholars Mentoring Program, 2007-2008.
- University Senate Honors Committee, University of North Dakota, 2007-
- College of Arts and Sciences Budget Committee, University of North Dakota, 2004-2007
- University Senate Student Policy Committee, University of North Dakota, 2002-2005 (Chair 2004-2005).
- Environmental Science Undergraduate Major Planning Committee, University of North Dakota, 2002-2003.
- Faculty Research Seed Money Physical Sciences Committee, University of North Dakota, 2001-2005.
- Environmental Systems Research Institute (ESRI) Virtual Campus Subscription Manager for UND, 2001-2006.
- Undergraduate Program Evaluation for Anthropology, University of North Dakota, 2001-2002.
- Earth System Science Program Planning Committee, University of North Dakota, 2000-2002.

DEPARTMENTAL SERVICE

- Member, Urban Geography/GIS Position Search Committee, 2006-2007.
- Member, UND Geography Department Building Committee, 2004.
- Chair, Environmental Geographer Search Committee, 2003-2004.
- Director, Graduate Geographic Information Science Certificate Program, Department of Geography, University of North Dakota, 2002-
- Department Web Master, 2000-
- Director, Geographic Analysis and Remote Sensing Lab, Department of Geography, University of North Dakota, Grand Forks, 2000-
- Department Head Search Committee, Graduate Student Member, Geography Department, Kansas State University, 1997 and 1998.
- Department of Geography "Brown Bag" Lecture Series, Director, Kansas State University, 1994-1995 and 1996-1999.

COMMUNITY SERVICE

- Coordinated a 2-week investigative research site for the Dakota Science Center's Science in the Circle of Life Program, 2003.
- Facilitated the development of media coverage maps for the Ralph Engelstad Arena, 2003.
- Facilitated the development of U.S. Potato Harvest Seasons and Potato Production maps for the Northern Great Plains Potato Growers Association, 2003.
- Assisted in the development of ground visibility maps for the Federal Aviation Administration, Grand Forks Regional Airport Control Tower (received letter of commendation), 2002.

PRESENTATIONS (OUTREACH)

2005 Introduction to Remote Sensing and GPS Workshop, NASA Native View Connections, Sitting Bull College, Fort Yates, ND.

Remote Sensing and GIS Activities at UND Geography, Introduction to Remote Sensing and Geographic Information System Integration for State, Local, and Tribal Government in North Dakota, NASA-National States Geographic Information Council Workshop, Bismarck, ND.

2004 Geospatial Technology: A World of Opportunity, North Dakota Department of Career and Technical Education, All Service Conference, Bismarck, ND.

The AmericaView Program, North Dakota Full GISTC Meeting, Bismarck, ND.

OTHER

AWARDS, HONORS, AND HONOR SOCIETIES

- Kansas State University, Department of Geography, Alumni Advisory Board, 2007-
- Supervised a thesis by Charles C. Geraci, which won the UND Graduate School's Distinguished Thesis Award in 2007.
- Received a Certificate of Appreciation for contributions to the Ronald E. McNair Post-baccalaureate Achievement Program, 2004-2005.
- First Place, Student Poster Competition, Association of American Geographers, Remote Sensing/GIS Specialty Groups, Honolulu, HI, 1999 (with J.M.S. Hutchinson).
- First Place, Student Paper Competition, Applied Geography Conference, Louisville, KY, 1998.
- National Outstanding Graduate Student Scholarship (Robert G. Buzzard award), Gamma Theta Upsilon International Geographical Honor Society, 1997.
- Best Paper, American Institute of Aeronautics and Astronautics, Houston chapter, 1996.
- Outstanding Graduate Teaching Assistant, Department of Geography, Kansas State University, 1994-95 academic year.
- Phi Kappa Phi, Kansas State University chapter, 1995.
- Gamma Theta Upsilon, Kansas State University chapter, 1994.

PROFESSIONAL SOCIETY MEMBERSHIPS

- American Society of Photogrammetry and Remote Sensing (ASPRS), 1996-present.
- Association of American Geographers (AAG), 1993-present.
- IEEE Geoscience and Remote Sensing, 2002-present.
- Sigma Xi, 2000-present.