

## CURRICULUM VITAE

### Daehyun Kim, Ph.D.

Department of Geography  
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### PROFESSIONAL APPOINTMENTS

- 08/2009 - **Assistant Professor**, Department of Geography, University of Kentucky
- 09/2008 - 05/2009 **Head of Graduate Teaching Assistants**, Department of Geography, Texas A&M University
- 09/2007 - 05/2008 **Graduate Research Assistant**, Department of Geography, Texas A&M University
- 09/2006 - 05/2007 **Graduate Teaching Assistant**, Department of Geography, Texas A&M University
- 03/2000 - 02/2002 **Platoon Leader** (2nd Lieut.), the 2nd Division, Republic of Korea Marine Corps

### EDUCATION AND MAJOR

- 09/2005 - 08/2009 Ph.D., Texas A&M University (Geography)  
Dissertation: “*Spatial and temporal dynamics of salt marsh vegetation across scales*”  
Dissertation Adviser: Dr. David M. Cairns
- 03/2002 - 02/2004 M.A., Seoul National University, South Korea (Geography)  
Thesis: “*Spatial distribution of plant species in relation to soil-topography-distance factors in a coastal dune ecosystem, South Korea*”  
Thesis Adviser: Dr. Keun Bae Yu
- 03/1996 - 02/2000 B.A., Seoul National University, South Korea (Geography)
- 03/1993 - 02/1996 Daeil Foreign Language High School, South Korea (German)

### AREAS OF SPECIALIZATION

- Biogeography
- GIS-based spatial analysis
- Soil-landform modeling
- Ecological multivariate analysis
- Ecological simulation modeling
- GIScience

### RESEARCH INTERESTS

- Bio-geophysical complexity in vegetation-environment relationships
- Scale-dependence in vegetation-environment relationships
- Environmental stress models for characterizing spatial gradient of vegetation
- Transition probabilities in vegetation patterns over time under changing environmental conditions

## PUBLICATIONS

### Articles Submitted to Refereed Journals:

**Kim, D.**, Cairns, D.M., Bartholdy, J., & Morgan, C.L.S., Scale-dependent correspondence of floristic and edaphic gradients across salt marsh creeks, *Oikos*, February 2010.

### Articles Accepted or Published in Refereed Journals:

**Kim, D.**, Cairns, D.M., & Bartholdy, J., Wind-driven sea-level variation influences dynamics of salt marsh vegetation, *Annals of the Association of American Geographers*, In press.

**Kim, D.**, Cairns, D.M., & Bartholdy, J., Environmental controls on multiscale spatial pattern of salt marsh vegetation, *Physical Geography*, In press.

**Kim, D.**, Cairns, D.M., & Bartholdy, J., 2009, Spatial heterogeneity and domain of scale on the Skallingen salt marsh, Denmark, *Danish Journal of Geography* 109, pp. 95-104.

**Kim, D.**, Cairns, D.M., & Bartholdy, J., 2009, Scale-dependent interactions and community structure along environmental gradients on a coastal salt marsh, *Journal of Coastal Research* SI 56, pp. 429-433.

**Kim, D.** & Yu, K.B., 2009, A conceptual model of coastal dune ecology synthesizing spatial gradients of vegetation, soil, and geomorphology, *Plant Ecology* 202, pp. 135-148.

Filippi, A.M., Brannstrom, C., Dobрева, I., Cairns, D.M., & **Kim, D.**, 2009, Unsupervised fuzzy ARTMAP classification of hyperspectral Hyperion data for savanna and agriculture discrimination in the Brazilian Cerrado, *GIScience & Remote Sensing* 46, pp. 1-23.

Park, S.J., Ruecker, G.R., Agyare, W.A., Akramhanov, A., **Kim, D.**, & Vlek, P.L.G., 2009, Influence of grid cell size and flow routing algorithm on soil-landform modeling, *Journal of the Korean Geographical Society* 44, 122-145.

**Kim, D.**, Yu, K.B., & Park, S.J., 2008, Identification and visualization of complex spatial pattern of coastal dune soil properties using GIS-based terrain analysis and geostatistics, *Journal of Coastal Research* 24(4C), pp. 50-60.

**Kim, D.**, 2004, Spatial distribution of nutrients from sea water and aeolian sands in a coastal dunefield, South Korea, *Journal of Geography* 43, pp. 57-79 (in Korean with abstract in English).

### Refereed Proceedings:

Filippi, A.M., Brannstrom, C., Cairns, D.M., & **Kim, D.**, 2007, Hyperion and CBERS satellite image classification intercomparison for Cerrado and agricultural mapping, In: Ehlers, M. & Michel, U. (eds.), *Remote Sensing for Environmental Monitoring, GIS Applications, and Geology VII*, (Proceedings of SPIE), vol. 6749, pp. 674913-1-674913-12.

### Books:

Yu, K.B., Shin, Y.H., & **Kim, D.**, *Coastal Dunes of Western Korea as Ecological Habitat*, Seoul National University Press, Seoul, South Korea, In press (in Korean).

### Encyclopedia Contribution:

**Kim, D.**, Complex systems models, In: Warf, B. (ed.), *Encyclopedia of Geography*, SAGE Publications, London, In press.

**Technical Reports:**

- Kim, D.**, 2007, Spatial and temporal dynamics of salt marsh vegetation across scales, *European Union Center of Excellence Research 2006-2007* (<http://euce.tamu.edu>).
- Park, K. & **Kim, D.**, 2003, Analysis of physical and chemical properties of dune sediments, In: National Institute of Environmental Research and Ministry of Environment (eds.), *Nationwide Detailed Survey on Coastal Dune Ecosystems of South Korea*, pp. 165-178 (in Korean).

**PRESENTATIONS****Oral:**

- Kim, D.**, Cairns, D.M., & Bartholdy, J., 2010, Spatial trends in vegetation diversity across environmental stress gradients on a salt marsh, *Symposium of the International Association for Vegetation Science*, Ensenada, Baja California, Mexico, April 18-23 (To be presented).
- Kim, D.**, Cairns, D.M., Bartholdy, J., & Morgan, C.L.S., 2010, Scale-dependent correspondence of floristic and edaphic gradients across tidal creeks, *Annual Meeting of the Association of American Geographers*, Washington, D.C., April 14-18 (To be presented).
- Kim, D.**, Cairns, D.M., & Bartholdy, J., 2009, Environmental controls on multiscale spatial pattern of salt marsh vegetation, *Annual Meeting of the Southeastern Division of the Association of American Geographers*, Knoxville, TN, November 21-24.
- Kim, D.**, Cairns, D.M., & Bartholdy, J., 2009, Scale- and species-dependent interactions shape complex community structure along environmental gradients, *Society of Wetland Scientists International Conference*, Madison, WI, June 22-26.
- Kim, D.**, Cairns, D.M., & Bartholdy, J., 2009, Scale-dependent interactions and community structure along environmental gradients on a coastal salt marsh, *International Coastal Symposium*, Lisbon, Portugal, April 13-18.
- Kim, D.**, Cairns, D.M., & Bartholdy, J., 2009, Species-specific competition and facilitation across spatial scales and environmental gradients, *Annual Meeting of the Association of American Geographers*, Las Vegas, NV, March 22-27.
- Kim, D.**, Cairns, D.M., Bartholdy, J., & Morgan, C.L.S., 2008, Soil spatial variability associated with tidal creek meandering on a salt marsh, *ASA-CSSA-SSSA International Annual Meeting*, Houston, TX, October 5-9 (received *Best Presentation Award*).
- Kim, D.**, Cairns, D.M., & Bartholdy, J., 2008, Climate variability associated with the North Atlantic Oscillation influences dynamics of salt marsh vegetation, *Society of Wetland Scientists International Conference*, Washington, D.C., May 26-30.
- Millington, A.C., Lafon, C.W., & **Kim, D.**, 2008, Rita's legacy: inter-specific and spatial patterns of tree damage in east Texas forests, *Annual Meeting of the Association of American Geographers*, Boston, MA, April 15-19.
- Kim, D.**, Cairns, D.M., & Bartholdy, J., 2008, Spatial zonation of salt marsh vegetation in response to edaphic and topographic gradients across tidal creeks, *Annual Meeting of the Association of American Geographers*, Boston, MA, April 15-19.
- Kim, D.**, Cairns, D.M., Yu, K.B., & Park, S.J., 2007, Scale dependence of environmental correlation of soil spatial variability: a comparison of three adaptive techniques, *ASA-CSSA-SSSA International Annual Meeting*, New Orleans, LA, November 4-8.
- Kim, D.**, Millington, A.C., & Lafon, C.W., 2007, Hurricane-induced tree damage in mixed hardwood-softwood forests in the Big Thicket National Preserve, Texas, *Annual Meeting of the Southwestern*

*Division of the Association of American Geographers*, College Station, TX, November 1-3.

- Filippi, A.M., Brannstrom, C., Cairns, D.M., & **Kim, D.**, 2007, Hyperion and CBERS satellite image classification intercomparison for Cerrado and agricultural mapping, *SPIE Europe Remote Sensing*, Florence, Italy, September 17-20.
- Kim, D.**, Cairns, D.M., & Bartholdy, J., 2007, Linking micro-scale spatial zonation of vegetation across tidal creeks with fluvial-geomorphic processes on a coastal salt marsh, *Society of Wetland Scientists International Conference*, Sacramento, CA, June 10-15 (received *Honorable Presentation Award*).
- Kim, D.**, Cairns, D.M., & Bartholdy, J., 2007, Spatial patterns and long-term dynamics of salt marsh vegetation on the Skallingen Peninsula, Denmark, *Annual Meeting of the Association of American Geographers*, San Francisco, CA, April 17-21.
- Yu, K.B., Kim, S.H., Rhew, H., Shin, Y.H., **Kim, D.**, & Kwon, K.H., 2004, Geomorphic influence on the variations of incoming nutrients in a coastal dune ecosystem, *East Asian Federation of Ecological Societies International Congress*, Mokpo, South Korea, October 20-24.
- Kim, D.**, Yu, K.B., & Park, S.J., 2004, Topographic indicators of plant distribution in a coastal dunefield, *International Geographical Union*, Glasgow, U.K., August 15-20.
- Kim, D.**, Park, S.J., & Yu, K.B., 2004, Topography as an indicator of soil properties in a coastal dunefield, *Biannual Meeting of the Geomorphological Association of Korea*, Chungju, Korea, August 12-14.
- Kim, D.**, Park, S.J., & Yu, K.B., 2004, Spatial distribution of nutrients from sea water and aeolian sands in a coastal dunefield, *Biannual Meeting of the Korean Geographical Society*, Kongju, Korea, May 28-29.

#### Poster:

- Kim, D.**, Cairns, D.M., & Bartholdy, J., 2009, A comparison of floristic and edaphic gradients responding to fluvial-geomorphic processes of tidal creeks, *Annual Binghamton Geomorphology Symposium*, Blacksburg, VA, October 2-4.
- Millington, A.C., Lafon, C.W., & **Kim, D.**, 2009, Order or disorder: what is the effect of hurricanes on forest ecosystem structure? *International Congress of Ecology*, Brisbane, Australia, August 16-21.
- Srinath, I., Flatley, W.T., Graff, C., Hopf, F., **Kim, D.**, Krustchinsky, A.R., Redo, D., & Young, A.B., 2007, The urban expansion of Bryan and College Station, TX from 1867-2003, *Annual Meeting of the Southwestern Division of the Association of American Geographers*, College Station, TX, November 1-3.

#### MANUSCRIPT REVIEWER

- 2010 (1 review)      *Geomorphology*
- 2009 (3 reviews)    *Earth Surface Processes and Landforms*  
                               *Sensors*  
                               *Soil Science Society of America Journal*

#### CONFERENCE SESSIONS ORGANIZED

- 2010 (scheduled)    Organizer and chair of “*Vegetation Dynamics II*” (sponsored by the Biogeography Specialty Group), Annual Meeting of the Association of American Geographers, Washington, D.C., April 14-18.
- 2009                    Organizer of “*Vegetation Dynamics II*” (sponsored by the Biogeography Specialty

Group), Annual Meeting of the Association of American Geographers, Las Vegas, NV, March 22-27.

#### INVITED TALKS

- 12/2009 Department of Plant and Soil Sciences, University of Kentucky, Lexington, KY  
 02/2009 Department of Geography, University of Kentucky, Lexington, KY

#### AWARDS

- 10/2008 *Best Oral Presentation* at the International Meeting of ASA-CSSA-SSSA, Houston, TX  
 06/2007 *Honorable Oral Presentation* at the International Meeting of the Society of Wetland Scientists, Sacramento, CA  
 09/2005 Regents Fellowship, Texas A&M University, \$15,000

#### RESEARCH GRANTS

- 07/2008 - 07/2009 Doctoral Dissertation Research Improvement Grant, National Science Foundation: '*Spatial and temporal dynamics of salt marsh vegetation across scales*,' \$11,730  
 06/2008 Graduate Student Research Grant, Geography Department, Texas A&M University: '*Estimating the rate of sedimentation under different successional states*,' \$300  
 06/2007 Graduate Student Research Grant, the Society of Wetland Scientists: '*Linking micro-scale spatial zonation of vegetation across tidal creeks with fluvial-geomorphic processes on a coastal salt marsh*,' \$1,000  
 04/2007 Graduate Student Research Grant, Biogeography Specialty Group, the Association of American Geographers: '*Spatial zonation of vegetation on a salt marsh ecosystem: implications of micro-spatial scale processes and land use history*,' \$1,000  
 09/2006 Graduate Student Research Grant, European Union Center of Excellence: '*Long-term dynamics of vegetation on a salt marsh of the Wadden Sea: implications of climate change and land use history*,' \$2,065  
 07/2006 Graduate Student Research Grant, Geography Department, Texas A&M University: '*Long-term dynamics of vegetation on a Danish salt marsh*,' \$1,000

#### TRAVEL GRANTS

- 11/2009 Travel Grant, '*2009 Annual Meeting of the Southeastern Division of the Association of American Geographers*,' \$100  
 06/2009 Travel Grant, Geography Department, Texas A&M University: '*2009 Society of Wetland Scientists International Conference*,' \$600  
 05/2008 Travel Grant, Ecology and Evolutionary Biology Program, Texas A&M University: '*2008 Society of Wetland Scientists International Conference*,' \$490  
 06/2007 Travel Grant, Ecology and Evolutionary Biology Program, Texas A&M University: '*2007 Society of Wetland Scientists International Conference*,' \$820

### SCHOLARSHIPS

09/2005 - 08/2006 Incentive Tuition Scholarship, Texas A&M University, \$2,000  
03/2002 - 02/2004 Scholarship of LG Yonam Foundation, South Korea, \$3,000  
09/1998 - 02/1999 Scholarship of Army R.O.T.C., Seoul National University, \$1,000  
03/1996 ~ 02/1998 Scholarship of Pyoungyang Citizen's Association, \$2,000

### DEPARTMENTAL SERVICES

09/2009 - **Graduate Studies Committee**, UK Geography  
**Colloquium Organizing Committee**, UK Geography  
**Laboratory Advisory**, UK Geography

### COURSES TAUGHT

*Department of Geography, University of Kentucky*

GEO / BIO 530 Biogeography and Conservation  
GEO 130 Earth's Physical Environment

*Department of Geography, Texas A&M University*

GEOG 213 Planet Earth Lab

### MEMBERSHIPS

The Association of American Geographers  
The Society of Wetland Scientists  
The Soil Science Society of America  
The Korean Geographical Society  
The Geomorphological Association of Korea

### RELEVANT SKILLS

#### Computing:

GIS (ArcView, ArcGIS) / Remote sensing (ENVI)  
Spatial analysis (S-plus with Spatial Analyst, SURFER, ArcGIS with Geostatistical Analyst, R)  
Simulation modeling (STELLA, MATLAB)  
Multivariate statistics (S-plus, SPSS, CANOCO for Windows, R, PC-ORD, MS EXCEL)  
Terrain analysis – familiar with various algorithms for extracting terrain parameters

#### Scientific Skills:

Experiences in soil, vegetation, and landscape survey (GPS and Total Station)  
Proficiency in physical and chemical soil analyses