Curriculum Vitae

Dohyoung Kim

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University of Notre Dame
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EDUCATION

Ph.D. in Environment 2016
Duke University, Durham, NC
Dissertation: Effect of termination of long-term Free Air CO_2 Enrichment (FACE) on physiology and carbon allocation in a loblolly pine dominated forest

M.S. in Bio-resource and Ecology 2009
Korea University, Seoul, Korea
Thesis: Biomass, carbon and nitrogen storage in an age-sequence of *Larix kaempferi* stands in central Korea

B.S. in Environmental Science and Ecological Engineering 2007
Korea University, Seoul, Korea

PROFESSIONAL EXPERIENCE

Postdoctoral Research Associate 2016-Current
University of Notre Dame

RESEARCH EXPERIENCE

Duke University Durham, NC
Research Assistant; Advisor: Ram Oren 2009-2016
Estimation of components of evapotranspiration (Duke Forest AmeriFlux Hardwood site)

- Examined sensitivity of stand transpiration to wind velocity
- Maintained and collected sap flux density and environmental data

Forest atmosphere carbon transfer and storage experiment (FACTS-I facility)

- Analyzed responses of sap flux density and soil respiration to termination of long-term CO_2 enrichment using Bayesian state space models
- Examined effects of CO_2 enrichment on understory vegetation using a Bayesian hierarchical model
- Collected above- and belowground biomass of understory and overstory vegetation
- Measured leaf area index and leaf area vertical profile using LAI-2000
- Maintained and collected sap flux density, soil CO_2 efflux, leaf litter and environmental data

Korea Environment Institute Seoul, Korea

Research Assistant; Advisor: So Eun Ahn 2009
Construction of environmental valuation on-line database and analysis of empirical valuation

- Developed database of environmental valuation cases
- Participated in writing research report

Korea University Seoul, Korea
Research Assistant; Advisor: Yowhan Son 2007-2009
Biomass and nutrient storage in an age-sequence of Japanese larch stands in central Korea

- Analyzed changes in carbon and nitrogen storage with increase in stand age
- Developed allometric equations for biomass using diameter at breast height and total height
- Collect biomass above- and belowground biomass

TEACHING EXPERIENCE

Duke University Durham, NC

Teaching Assistant: Ecology for a Crowded Planet Spring 2016

Teaching Assistant: Tree Structure and Function Fall 2014

Korea University Seoul, Korea

Teaching Assistant: Introduction to Ecology Spring 2007

AWARDS

Bass Instructional Fellowship Spring 2016
The Second Stage of BK21 Scholarship Fall 2008
Research Assistant Scholarship Spring 2007
Research Assistant Scholarship Fall 2007
Core Curriculum Assistant Scholarship Spring 2007
UBC Scholarship Spring 2003
Honors Scholarship Spring 2002
Honors Scholarship Spring 2001

COMPUTER SKILL

R, STAN, MATLAB, Mathematica, SAS

PUBLICATIONS

Kim, D., R. Oren and S.S. Qian. 2016. Response to CO_2 enrichment of understory vegetation in the shade of forests. Global Change Biology 22(2): 944-956

Kim, D., R. Oren, A.C. Oishi, C-I Hsieh, N. Phillips, K.A. Novick and P.C. Stoy. 2014. Sensitivity of stand transpiration to wind velocity in a mixed broadleaved deciduous forest. Agricultural and Forest Meteorology 187: 62-71

Manuscripts under review (first author only)

Kim, D., R. Oren, J.S. Clark, S. Palmroth, A.C. Oishi, H.R. McCarthy, C.A. Maier and K. Johnsen. Dynamics of soil CO_2 efflux under varying atmospheric CO_2 concentrations reveal dominance of slow processes

Manuscripts in preparation (first author only)

Kim, D., R. Oren, J.-C. Domec, G. Katul, H.R. McCarthy and E. Ward. Stomatal conductance and hydrologic balance in loblolly pine dominated forest after termination of long-term CO_2 enrichment

Kim, D., R. Oren, H.R. McCarthy and E. Ward. Forest carbon dynamics during and after long-term CO_2 enrichment at the Duke free-air CO_2 enrichment (FACE) site

CONFERENCE PRESENTATION

McCarthy, H.R., R. Oren, **D. Kim**, P. Tor-ngern, K.H. Johnsen, C.A. Maier. 2013. Harvesting Duke FACE: improving estimates of productivity and biomass under elevated CO_2. Proceedings of American Geophysical Union Fall Meeting (San Francisco, CA, USA, Dec. 9-13)

Kim, D., R. Oren, A.C. Oishi, C-I Hsieh, N. Phillips, K.A. Novick and P.C. Stoy. 2013. The effect of wind velocity on transpiration in a mixed broadleaved deciduous forest. Proceedings of American Geophysical Union Fall Meeting (San Francisco, CA, USA, Dec. 9-13)

Heo, S.J., Y. Son, T.K. Yoon, N.J. Noh, K.W. Seo, S.K. Lee, **D. Kim**, S.A. Razak, Y.K Son and C.G. Yoon. 2008. Nitrogen mineralization, availability, and denitrification under the three different soil moisture conditions in pure *Alnus japonica* stands of Seoul, Korea. Proceedings of International Workshop on Urban Wetland Ecology and Restoration (Xiamen, China)

Son, Y., N.J. Noh, K.W. Seo, S.J. Heo, S.K. Lee, **D.H. Kim**, W.K. Lee, C. Kim, S.W. Bae and J.H. Hwang. 2008. Influences of stand density on soil respiration for *Pinus densiflora*. Proceedings of ASA-CSSA-SSSA Joint Annual Meeting (Houston, TX, USA)

Lee, S.K., Y. Son, N.J. Noh, K.W. Seo, S.J. Heo and **D.H. Kim**. 2008. Biomass of natural pure and mixed pine and deciduous forests in central Korea. Proceedings of 6th workshop of "uneven-aged silviculture" IUFRO group (Shizuoka, Japan)

Lee, H., W. Kim, **D. Kim** and Y. Song. 2008 Effect of newly constructed buildings on wind and thermal environment. Proceeding of 4th International Conference on Advanced in Wind and Structure (Jeju, Korea)

Kim, D., H. Lee, W. Kim, M. Kwon and Y. Song. 2008. Effects of urban stream on thermal comfort at Cheonggyecheon in Seoul, Korea. Proceeding of 4th International Conference on Advanced in Wind and Structure (Jeju, Korea)

Seo, K.W., R.H. Kim, N.J. Noh, S.J. Heo, S.K. Lee, **D. Kim** and Y. Son. 2008. Mass dynamics of coarse woody debris in natural forests at Mt. Jumbong, Korea. Proceedings of A3 Foresight Program 2008 Seoul Workshop (Seoul, Korea)

Kim, W.H., Y.M. Yoon, J.H. Shin, D.Y. Kim, **D.H. Kim**, J.G. Kim. 2006. The rotation crop analysis which is related in the rice plant and the bean which apply a network analysis technique. Korean Journal of Crop Science (Seoul, Korea)